

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

In the Matter of)
Amendments of Parts 73 and 74)
of the Commission's Rules To)
Permit Certain Minor Changes in Broadcast) MM Docket 96-58
Facilities Without a Construction Permit)

REPORT AND ORDER

Adopted: August 14, 1997

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By the Commission:

TABLE OF CONTENTS

Subject	Paragraph No.
I. Introduction	1
II. Summary of Notice Proposals	6
III. Resolution of Individual Proposals	
A. Increases in ERP for Nondirectional, Non-Grandfathered and Non-Contour Protection Commercial Stations; Decreases in ERP	7
B. Program Test Operations for FM Stations With Directional Antennas	13
C. Replacing One FM or Television Directional Antenna With Another	16
D. Deletion of Contour Protection Status for Commercial FM Stations	22
E. Use of Formerly Licensed Main Facilities As Auxiliary Facilities (AM, FM, and Television)	25
F. Changes to the Vertically Polarized ERP for FM	

and Television Stations	27
G. Changes in Height of Antenna Radiation Center for FM and TV stations	33
H. Main Studio Waiver Requests	37
I. Commercial Stations Changing to Noncommercial Educational Status (AM and FM)	40
J. Additional Clarifications to 47 C.F.R. Sections 73.1620 and 73.1690	42
K. Continuation of Protection to AM Stations	47
L. Clarification to Channel 6 Television - FM Educational Rules in 47 C.F.R. Section 73.525 and 47 C.F.R. Section 73.599	51
M. Requirement that an FM Measured Directional Composite Pattern's RMS Be 85% Or More of an Authorized FM Directional Composite Pattern's RMS	53
N. Fees for Modification of License Applications	65
IV. Additional Suggestions made by Commenters	67
A. Supplemental Contour Prediction Methods for Coverage	68
B. Transmitter Operating Constants	73
C. 50% Change in Area Constitutes A Major Change for FM Noncommercial Educational FM Stations	75
D. Proposed Revisions to the Wording of 47 C.F.R. Section 73.316(c) and 47 C.F.R. Section 73.685(f)	77
E. Correction of Station Coordinates on a Modification of License Application (AM, FM, TV)	80
F. Suggestion for a review of effects of the new rules adopted herein after one year and after two years	83

G. Public notice release and comment period suggested for applications filed under new procedures adopted by this <i>Order</i>	85
V. Conclusion	87
VI. Ordering Clauses	89
A. Effective Date	90
B. For Further Information . . .	91
Appendix A Regulatory Flexibility Analysis	
Appendix B List of Commenters	
Appendix C Supplement to license application Form 302-FM	
Appendix D Supplement to license application Form 302-TV	
Appendix E New and Revised Rules adopted by this <i>Order</i>	

INTRODUCTION

1. In the Notice of Proposed Rulemaking ("*Notice*") in this proceeding,¹ the Commission proposed revisions to the rules for radio and television broadcast stations to reduce the burden on applicants applying for certain types of minor modifications to existing facilities. The rule revisions adopted herein were made possible through changes by Congress, at the request of the Commission, in Section 319(d) of the Communications Act, 47 U.S.C. 319(d), which were included in the recently enacted Telecommunications Act of 1996, Pub. L. No 104-104, 110 Stat 56 (1996). The changes to Section 319(d) eliminated the prohibition against waiving the permit requirement for applicants wanting to make minor changes to broadcast station facilities.² We therefore proposed revisions to our broadcast regulations to replace, in certain instances, the two step construction permit-license process with a single step licensing procedure. The rules adopted in this *Order* permit implementation without prior Commission authority of AM, FM, and television minor modifications in a limited number of situations which are unlikely to have an adverse effect on other broadcast facilities or service to the public, and we will allow "single step" licensing of the modified facilities. In addition, we proposed and hereby adopt other revisions to certain rules to simplify those rules and several additions to existing rules to codify existing policies.

2. The proposals in the *Notice* generally received widespread support in the 12 comments and 3 reply comments received. The National Association of Broadcasters ("NAB") "supports FCC rule and policy changes [which will] expedite the use of changed facilities without endangering interference-free broadcast service." NAB comments at Page 8. The comments of The Association of America's Public Television Stations ("APTS"), which represents 351 public television stations across the country, support the proposed revisions applicable to television licensees which will "simplify[] the regulatory process [and] give broadcasters greater flexibility without any adverse effect on the public interest." APTS comments at Page 3. The Association of Federal Communications Consulting Engineers ("AFCCE") "finds the proposed changes constructive and supports the concept of replacing a two-step FCC processing procedure with a single step while maintaining the technical fabric of the broadcast system." AFCCE Comments at Page 1. The consulting engineering firm of duTreil, Lundin & Rackley ("DLR") supports with several modifications the proposed changes which "will protect the integrity of broadcast stations while eliminating unneeded and unwanted additional effort in the licensing process." The remaining commenters address specific portions of the *Notice* which they believe merit additional consideration or believe do not go far enough toward relaxation.³

¹ *Notice of Proposed Rulemaking* in MM Docket 96-58, 11 FCC Rcd 8800, 61 Fed. Reg. 15439 (April 8, 1996).

² Section 319(d) has been modified to read in relevant part as follows: "With respect to any broadcasting station, the Commission shall not have authority to waive the requirement of a permit for construction, except that the Commission may by regulation determine that a permit shall not be required for minor changes in the facilities of authorized broadcast stations." Pub. L. 104-104, Section 403(m), 110 Stat 56 (1996).

³ Appendix B contains a list of commenters and reply commenters.

3. The implications of eliminating a construction permit for certain changes go well beyond the simple actions of reducing paperwork and processing time. A construction permit application serves as an engineering blueprint of the proposed facility, which can be examined by the staff and other parties to ascertain compliance with the Commission's rules and policies prior to any construction. Thus, the construction permit assures Commission approval for the facilities specified therein, and those facilities are protected from later-filed conflicting applications. On the other hand, a license application covers facilities which have already been constructed and in most cases are already operating. The staff does not perform interference or coverage studies in a license application, as it would for a construction permit application. The staff simply performs a brief review of the license application to confirm that the actually constructed facilities match the construction permit or former license, as appropriate. Usually, no determination of compliance with Commission rules and policies is required at the license application stage, since those determinations were made prior to grant of the construction permit.

4. One step licensing places the burden for compliance with the Commission's rules squarely on the applicant. Because the Commission's staff has not reviewed the station changes prior to implementation, the applicant cannot rely on staff concurrence to guarantee compliance with the rules. There exists the possibility that a licensee or permittee will have expended funds on a facility which cannot be licensed or which requires further financial outlays to bring the facility into compliance. Therefore, we want to emphasize at the outset that it will be the licensee's or permittee's sole responsibility to determine, prior to making any changes or the filing of a license application, whether the proposed changes comply with the new rule sections adopted in this Order. Any facilities changes made under the relaxed one-step licensing procedures adopted here will be made at the licensee's or permittee's own risk. We will be strongly disinclined to consider waivers or requests for special temporary authority, or approve expedited processing, to accommodate applicants who have filed one step applications which fail to comply with our rules and policies. We retain the authority to require changes to program test authority or to require the cessation of operation with the changed facilities, or if necessary require submission of a construction permit application on FCC Forms 301 or 340 to bring a station into compliance with the our rules and policies, or to resolve instances of interference. Ineligible applicants who nonetheless file a one step application may be required to restore their facilities to the authorized parameters on short notice. However, because we are permitting one step license applications only in instances where there will be little or no adverse impact on other broadcast facilities or the public, we believe that major adjustments will not be required in most instances to bring errant stations into compliance.

5. We also clarify that applicants will not be compelled to use the one step procedures to make changes if the applicant chooses not to. A construction permit granting Commission approval for construction may be necessary for the applicant to secure financing or local zoning clearances, for example, or to facilitate the sale of a station. These applicants may still continue to file a construction permit application on FCC Form 301 for commercial stations or Form 340 for noncommercial educational stations. However, the applicant should be aware that a construction permit application to make a change which could be implemented in a one step license application will not be considered ahead of previously filed routine construction permit applications.

SUMMARY OF NOTICE PROPOSALS

6. On March 19, 1996 we initiated this proceeding through the adoption of a *Notice of Proposed Rulemaking* ("Notice") setting forth the proposed rule changes, which were intended to eliminate the existing two-step application process for AM, FM, and television stations under certain conditions and to make certain other rules and policies are more readily understandable. Specifically, we proposed to

(1) allow those FM commercial broadcast stations not governed by the provisions of 47 C.F.R. Sections 73.213 and 73.215, or limited by certain other narrow restrictions, to increase effective radiated power (ERP) to the maximum permitted for the station class without the prior requirement of a construction permit;

(2) modify 47 C.F.R. Section 73.1620 to allow directional FM stations to commence program test operations at half power or the ERP corresponding to the deepest null of the authorized antenna pattern;

(3) employ simplified procedures where an FM directional antenna is replaced with another directional antenna and no changes to the authorized radiation pattern or ERP are proposed, or where the applicable data is provided for a television station changing directional antennas;

(4) allow FM contour protection stations authorized pursuant to 47 C.F.R. Section 73.215 which become fully spaced through a change made by another station, to remove the contour protection designation by a modification of license application;

(5) use a simplified procedure for obtaining authority to use a former main AM, FM, or television facility as an auxiliary broadcast facility (47 C.F.R. Section 73.1675);

(6) allow FM commercial and certain noncommercial educational FM stations, as well as television stations, to change the vertically polarized ERP without prior authorization, within limits;

(7) increase the permitted variance in the location of the antenna radiation center for FM and TV stations to facilitate antenna mounting;

(8) eliminate the requirement to use FCC Form 301 or FCC Form 340 for main studio waiver requests;

(9) permit AM, FM, and television stations to change from commercial to noncommercial educational status on a license application rather than a construction permit application;

(10) revise the program test authority rule (47 C.F.R. Section 73.1620) and the modification of transmission systems rule (47 C.F.R. Section 73.1690) to simplify and clarify these rule sections, as well as add the additional changes necessitated by the *Notice*;

(11) incorporate into a new rule section the current policies designed to protect AM broadcast stations from adverse effects caused by other broadcast stations;

(12) add a provision to the FM-interference-to-Channel 6 TV rule (47 C.F.R. Section 73.525) that was left out when the rule was adopted in 1985; and

(13) codify the existing staff policy concerning how much of the authorized composite directional pattern for FM stations must be filled by the measured directional composite pattern.

We also asked for suggestions concerning other rules and procedures which could be modified to utilize a one-step licensing process, in addition to the specific proposals advanced in the *Notice*.

RESOLUTION OF INDIVIDUAL PROPOSALS

7. Increases in ERP for Nondirectional, Non-Grandfathered and Non-Contour Protection FM Commercial Stations, Decreases in ERP. The *Notice* proposed to revise 47 C.F.R. Section 73.1690 to permit FM commercial stations which meet the minimum distance separations specified in 47 C.F.R. Section 73.207, and are operating with less than the maximum facilities permitted for the authorized station class, to increase the effective radiated power to the maximum permitted for the station class, followed by the filing of a modification-of-license application on FCC Form 302-FM within 10 days of the power increase. As proposed, a radiofrequency radiation analysis would have to be submitted with the license application to demonstrate adequate protection to the public and workers. This proposed change would eliminate the requirement for the filing and grant of a construction permit application on FCC Form 301 before the power increase could be implemented. However, the *Notice* indicated that not all stations could be permitted to use this process and set forth five proposed exclusions:

(a) where the station in question was authorized under the grandfathered short-spaced rule (47 C.F.R. Section 73.213), since the opposite short-spaced station could be adversely affected by the increased power;

(b) where the station in question was authorized under the contour protection rule (47 C.F.R. Section 73.215), since the opposite contour-protected station could be adversely affected by the increased power;

(c) where the station in question could potentially affect a Commission monitoring station or a designated radio quiet zone;

(d) where the increased power would result in contour overlap which would violate the multiple ownership restrictions of 47 C.F.R. Section 73.3555; and

(e) where the station in question is located within the Canadian or Mexican border zones and does not meet the minimum separations of 47 C.F.R. Section 73.207 with respect to a foreign station or foreign allotment, or where the station's authorized International Class does not permit operation with the maximum facilities permitted for that station's domestic station class. In both cases, prior international coordination by the Commission is required.

The *Notice* also sought comment on whether the Commission should permit *decreases* in effective radiated power, noting our concerns that the community of license may no longer be adequately served by a reduced station operation. Comment was also sought as to whether suitable procedures for power decreases could be incorporated into the proposed license application procedure.

8. *Comments.* Of the seven parties providing initial comments on this proposal, and the one applicable reply comment, all concur with the basic import of the proposal. DLR, noting that while requests for power decreases are not common, concludes that power decreases as well as increases should be included under this procedure provided that proper coverage of the community of license is maintained. DLR also believes that stations located near quiet zones should be permitted to secure the concurrence of the affected entity prior to increasing ERP and supply that concurrence with the license application. Mullaney Engineering, Inc. ("Mullaney") agrees with DLR's assessment regarding quiet zones, and would extend it to include Table Mountain and Commission monitoring stations. Crawford Broadcasting Company ("Crawford") states that the new procedure would give many FM stations greater latitude and eliminate several months' processing time as well as reduce engineering and filing fee costs. AFCCE and NAB express concern that improperly determined power levels filed in the covering Form 302-FM license applications may result in interference. Finally, Graham Brock, Inc. ("GBI"), argues that power increases or decreases for stations which involve contour overlap pursuant to 47 C.F.R. Section 73.3555 between commonly owned stations should not be exempted from use of this procedure. GBI submits that license applications submitted with multiple ownership showings may require that program authority be withheld pending Commission review of the application.

9. *Discussion.* We believe that it would be beneficial to permit commercial FM broadcast stations, and those noncommercial educational FM stations which operate in the non-reserved portion of the FM band (except Class D stations)⁴, which are not grandfathered under Section 73.213 or authorized under the contour protection provisions of Section 73.215, to increase ERP without the prior requirement of a granted construction permit, providing that FAA clearance is not an issue,⁵ and provided that the

⁴ Reserved band stations are those noncommercial educational FM stations that operate on Channels 201 to 220 (as well as existing Class D stations licensed to operate on Channel 200), which have been specially reserved for noncommercial educational use. Non-reserved band stations are all stations which operate on Channels 221 through 300, with the exception of Class D noncommercial educational stations, and include commercial stations as well as some noncommercial educational FM stations. For the purposes of this document, all non-reserved band stations (again excepting Class D stations) will simply be referred to as "commercial FM" stations.

⁵ If the Federal Aviation Administration ("FAA") has issued a determination limiting the ERP of the station to a specific value due to electromagnetic interference (EMI) concerns, the licensee or permittee must obtain a new written determination of no hazard from that agency for the proposed power level *prior* to implementing the power increase and filing the license application with the FCC. The FAA's determination must be supplied with the license application to cover the increased power. Failure to do so will be sufficient grounds for the Mass Media

Commission's radiofrequency radiation guidelines are met.⁶ We will permit those commercial FM stations in the Canadian and Mexican border zones which meet the tests set forth in the new rule section to use the streamlined procedure. We believe that the tests set forth in 47 C.F.R. Section 73.1690(c)(7) will provide a sufficient safeguard against power increases by stations which are not eligible to do so. For convenience, we will periodically release a Public Notice containing a list of those stations known to be eligible under the revised rule.⁷ Applicants filing under this procedure will be operating on automatic program test authority pursuant to 47 C.F.R. Section 73.1620 pending the completion of the staff's review of the license application and the issuance of the covering license. Where necessary due to interference, excessive radiofrequency radiation, improper construction, or ineligibility to increase ERP in this manner, the Commission will require changes in the operating power while the station operates on automatic program test authority and before acting on the license application.

10. With respect to those FM commercial stations located near designated radio quiet and radio coordination zones, including Table Mountain and the Commission's monitoring stations (*see* 47 C.F.R. Sections 73.1030 and 0.121(c)), we will, as suggested by some commenters, extend eligibility to permit increases in ERP where the station in question has obtained prior written concurrence for the proposed ERP from the operator of the quiet zone, or the Commission's Compliance and Information Bureau in the case of a monitoring station. A copy of the written concurrence must be submitted with the license application to document that the necessary protection required by 47 C.F.R. Section 73.1030 has been provided.

11. As suggested by the commenters, we concur that many proposals for FM stations to decrease ERP can be accommodated within a one step license process without undue difficulty.⁸ Power decreases

Bureau to require that station to reduce power to the value specified on its construction permit or license pursuant to 47 C.F.R. Section 73.1620(c) regardless of whether or not any actual interference has been reported to the FCC.

⁶ Applicants should be aware that the Commission has adopted stricter radiofrequency radiation guidelines for broadcast stations, which become effective on September 1, 1997. *See Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation (Report and Order)*, ET Docket 93-62, 11 FCC Rcd 15123 (1996); *First Memorandum Opinion and Order*, 11 FCC Rcd 17512 (1996).

⁷ While a list in a Public Notice may not capture every station eligible to increase power in this manner (e.g., because another station changes transmitter site and thereby removes an existing spacing deficiency, or where the station in question does not comply with 47 C.F.R. Section 73.207 but was protected by the short-spaced station under the contour protection rule, 47 C.F.R. Section 73.215), it will eliminate any question of eligibility for those stations on the list. Potential applicants should be aware, however, that the Commission will not confirm the eligibility of stations on an individual basis, because in most instances the researching of station records and computer studies performed by the staff would require almost the same amount of work as a construction permit application. Therefore, it is not cost effective for the Commission to provide this service, nor is it fair to other applicants who do their own research.

⁸ For example, an applicant may want to reduce ERP to avoid creation of a potentially hazardous radiofrequency radiation area, particularly in light of the Commission's more restrictive radiofrequency radiation requirements (*see* Footnote 6).

for eligible commercial stations, including grandfathered stations under 47 C.F.R. Section 73.213 and contour protection stations under 47 C.F.R. Section 73.215, as well as most noncommercial educational FM stations, will be covered by new rule section 47 C.F.R. Section 73.1620(c)(8).⁹ Eligible commercial FM applicants may submit a modification of license application to cover the reduced power, and no construction permit will be required. However, for stations in the commercial band, power reductions will only be accepted where the 70 dBu contour as predicted by the standard contour prediction method in 47 C.F.R. Section 73.313 (i.e., no supplemental contour prediction method) still continues to cover at least 80% of the area or population within the legal boundaries of the community of license, which under present policy corresponds to the minimum level necessary for substantial compliance with the city coverage rule (47 C.F.R. Section 73.315(a)).¹⁰ The commercial station's class must also remain unchanged from the authorized station class, as any change in classification would require a corresponding change to the Table of Allotments in 47 C.F.R. Section 73.202(b). For a noncommercial educational FM station to qualify for a decrease in ERP in a modification of license application, that station must still continue to provide 60 dBu (1 mV/m) service, which is protected from interference from other stations, to at least a portion of the community of license.¹¹ For both commercial and educational stations, the location of the main studio

⁹ However, we will not allow a noncommercial educational FM station to eliminate an authorized horizontally polarized component via this process, in favor of operation with the vertically polarized component only. Because educational stations operating with horizontal - only polarization, or horizontal and vertical components, are entitled to employ a 6 dB adjustment when computing an interference to Channel 6 television reception (*see* 47 C.F.R. Section 73.525(e)(1)(iii)), while those employing vertical - only polarization are not (*see* 47 C.F.R. Section 73.525(e)(4)(i)), total elimination of the horizontally polarized component may result in a larger predicted interference area to Channel 6, and thus create a possible violation of § 73.525. Therefore, we will continue to require a construction permit application for these few noncommercial educational FM applicants.

Similarly, we will continue to require construction permits to change either the horizontal or vertical ERP for those FM noncommercial educational stations operating on Channels 200 through 220 which operate with separate antennas (one horizontally polarized and one vertically polarized, mounted at different heights. In some cases, particularly if one of the antennas is directional, the protected and interfering contours produced from the lower antenna can extend beyond the corresponding contours produced by the higher mounted antenna, thus potentially causing interference. Such stations comprise only a small number of the total number of noncommercial educational FM stations.

¹⁰ We will not accept supplemental showings pursuant to 47 C.F.R. Sections 73.313(e) with a license application to show that the 70 dBu contour for commercial stations or the 60 dBu contour for noncommercial educational FM stations, as predicted by an alternate contour prediction method, extends further than (or less than) the same contour as predicted by the standard contour prediction method, for the reasons covered in Paragraph 71 below. Any applicant seeking to provide a supplemental showing in conjunction with a power increase or decrease must obtain a construction permit from the Commission before changing power.

¹¹ Traditionally, noncommercial educational FM stations have not been required to specify a minimum signal strength for coverage over a community of license. The reasons for this policy were as follows. First, the Commission recognized that many noncommercial educational FM stations, being very low power, simply could not provide 70 dBu (3.16 mV/m) coverage to the entire area within the legal boundaries of the community of license. Second, the Commission recognized that noncommercial stations are generally dependent on listener support, and that the necessary revenues may not be available to support a station reaching a wider audience. Third, educational stations' programming is often oriented toward a particular group of people (*e.g.*, a college campus or a particular ethnic or religious group) which may not be evenly distributed within the confines of a

must also remain within the 70 dBu principal community contour as required by 47 C.F.R. Section 73.1125. We will require the submission of a showing with the modification of license application to demonstrate compliance with the city coverage, station classification, and main studio requirements.¹² Upon review of the license application, the staff may require the licensee to resume operation with increased ERP if it is determined that coverage of the community of license or the main studio location is inadequate, or if the power reduction is found not to serve the public interest (e.g., where the power reduction would eliminate existing service to an otherwise unserved or under-served area (only one other service)).¹³

12. We do not believe that GBI's proposed revision permitting multiple ownership showings pursuant to 47 C.F.R. Section 73.3555 with an FM license application to increase or decrease ERP should be adopted. A license application signifies that the station is already operating in accordance with the parameters specified therein, or is ready to commence operation in the case of a directional FM station. As a result, submission of a multiple ownership showing with a license application undoubtedly would be understood by some licensees or permittees to mean that the ownership showing would be automatically approved, and that operations could commence accordingly. This is not necessarily true. Moreover, in some cases a proposed or approved assignment or transfer of a station to another owner does not come to fruition. Should that occur, it may not be readily apparent that the station can continue operation at the changed power level without violation of 47 C.F.R. Section 73.3555 or whether operation must resume at the previously authorized power level. We do not believe that GBI's suggestion that we delay program test authority for these license applications will provide sufficient protection against potential violations of the multiple ownership rules. Therefore, we will not adopt GBI's suggestion.

community's boundary. Consequently, we do not require that a noncommercial educational FM station's 60 dBu contour cover all of the community of license.

However, where no portion of the community of license is covered by the noncommercial educational FM station's 60 dBu contour, public interest questions must be addressed. The association of a broadcast station with a community of license is a basic tenet of the Commission's allocations scheme for broadcast stations. Section 307(b) of the Communications Act of 1934, 47 U.S.C. Section 307(b), mandates that the "Commission shall make such distribution of licenses, frequencies, hours of operation, and of power among the several States and communities as to provide a fair, efficient, and equitable distribution to each of the same." Implicit in this statement is a recognition that the Commission must protect service to the community of license from interference caused by other stations. Where no part of that community receives protected service, the community may lose all service from that station. Consequently, for those rare FM educational applications which do not provide any 60 dBu service to the community of license, we believe that the public interest aspect is best considered -- before implementation and loss of any existing or authorized service -- by way of a construction permit application on FCC Form 340.

¹² We will not accept supplemental showings to predict contour locations or to demonstrate main studio compliance with 47 C.F.R. Section 73.1125 with a license application, for the reasons set forth Paragraph 71 below.

¹³ FM applicants to reduce power should also be aware that reductions in ERP and the related reductions in service area may cause an authorized auxiliary facility to violate 47 C.F.R. Section 73.1675. If this occurs, the station must modify the auxiliary facility at the same time the power of the main station is reduced, so as to maintain compliance with that rule. Alternatively, the station may surrender the auxiliary license for cancellation.

13. **Program Test Operation for FM Stations With Directional Antennas.**

Currently, FM commercial and noncommercial educational FM stations which have completed construction pursuant to a construction permit are precluded from commencing operation with a directional antenna until after the staff has reviewed the Form 302-FM application for license covering the directional operation. As a result, FM stations generally have faced a 10 day delay in which operation could not commence, until the staff had received the license application and reviewed it. The *Notice* proposed to revise the program test authority rule (47 C.F.R. Section 73.1620) to permit directional FM commercial and noncommercial educational FM applicants to commence operations on program test authority immediately upon installation at either half power or the power corresponding to that of the deepest null of the directional pattern, whichever is greater. The *Notice* indicated that we would continue to authorize program test operations at full power by letter once the staff has had the opportunity to review the license application, verify that the antenna installation had been made as directed by the manufacturer, and confirm that the measured directional pattern did not exceed the authorized composite pattern.

14. *Comments.* Of the seven comments received specifically addressing this issue, all favor relaxation of the present program test authority rule. AFCCE and GBI support the revision of the rule as proposed. DLR would limit ERP for program test operations to one half of the authorized ERP, concluding that the calculation of ERP corresponding to the deepest null can be complex. Mullaney agrees with DLR that the program test authority ERP should be limited to half power, and states that a clarification should be issued to require that the authorized ERP, transmitter operating constants, and transmitter output power be specified in the license application submitted, rather than specifying those values applicable to the reduced power operation which would occur under program test authority. Crawford feels that directional FM stations should be permitted to commence program test operations at the full authorized ERP, stating that the surveyor's and supervising engineer's certifications are sufficient to ensure that the antenna was installed pursuant to the manufacturer's instructions, and that any interference which could be created as compared to half power operation would be "minimal". Thomas Gary Osenkowsky ("Osenkowsky") also believes that full power operation should be permitted under program test authority automatically, unless a complaint of interference is received, on the ground that many transmitters cannot operate efficiently at reduced power levels. Similarly, Communications General Corporation ("CGC") supports full power operation on program test authority, because half-power operation (which corresponds to 3 dB less than the authorized ERP) is, according to CGC, insufficient for interference control.

15. *Discussion.* Like NAB and other commenters in this proceeding, we are concerned that the rule changes adopted by this *Order* not result in interference to other stations. The staff has encountered instances in FM license applications where the directional antenna was not installed in accordance with the manufacturer's instructions, where the tower faces were not oriented in the directions given by the antenna manufacturer, or where the final measured directional pattern exceeded the composite directional pattern authorized for the station. In each of these situations, interference to other FM stations could be created were full power operation to commence. However, little if any interference would occur where the program test ERP is limited to a power level less than that specified on the station's authorization. For these reasons, we cannot conclude that the best approach would be to permit automatic program test operations at full power as suggested by Crawford, CGC, and Osenkowsky. DLR's and Mullaney's suggestions for a half power limitation, on the other hand, in all cases is administratively simple, easy to calculate, and requires no special conditions on the construction permit. Consequently, we will adopt a limit of half the authorized effective radiated power for FM directional stations operating under automatic program test

authority, and revise 47 C.F.R. Section 73.1620(a) accordingly.¹⁴

16. Replacing One FM or Television Directional Antenna With Another.

The *Notice* proposed to revise the program test authority rule (47 C.F.R. Section 73.1620) and the transmission systems rule (47 C.F.R. Section 73.1690) to eliminate the requirement in many circumstances for a construction permit before implementing a change to an FM or TV directional antenna. For FM stations, we proposed to permit the submission of a modification-of-license application on FCC Form 302-FM, with appropriate exhibits, after the new directional antenna had been installed, provided that the composite radiation pattern of the new directional pattern is completely encompassed by the authorized composite radiation pattern at all azimuths,¹⁵ and that the new measured pattern maintains compliance with the principal community coverage requirements of 47 C.F.R. Section 73.315(a). The FM station would be permitted to commence program test authority at reduced power immediately pursuant to the revised program test authority rule (47 C.F.R. Section 73.1620). We also proposed to add a definition of "composite pattern" to 47 C.F.R. Section 73.310(a), for clarity. We proposed to permit television stations to change directional antennas using a modification-of-license application on FCC Form 302-TV with the directional antenna information required in 47 C.F.R. Section 73.685(f), and to commence program test operations immediately at full power pursuant to Section 73.1620(a)(1).

17. *Comments.* The comments received addressing the proposed rule revisions are generally supportive. AFCCE and GBI agree with the proposed rule changes. DLR also agrees, but would exclude those noncommercial educational FM stations which are collocated with a television Channel 6 station and must maintain vertical radiation characteristics emulating the vertical radiation characteristics of the television antenna.¹⁶ Osenkowsky believes that the replacement of one directional antenna by an

¹⁴ As we stated in the *Notice*, the rule revisions will not prevent a licensee from continuing operations with its existing licensed facility in lieu of reduced operations on program test authority with the directional permit facility pending the approval of full program test authority.

¹⁵ In nearly all instances, the composite antenna pattern in the Commission's FM database corresponds to the composite antenna pattern authorized by the underlying construction permit. The measured composite antenna pattern submitted in the license application must always be completely encompassed by the composite antenna pattern listed in the database. We clarify that no change will be made to the authorized composite antenna pattern in the database provided that the new measured directional antenna pattern submitted with the license application is completely encompassed by the authorized composite antenna pattern, except as follows. If the directional station is authorized pursuant to 47 C.F.R. Sections 73.509 or 73.215, the RMS of the measured composite antenna pattern must be 85% or more of the RMS of the composite antenna pattern. If the measured antenna pattern for a station authorized under 47 C.F.R. Sections 73.509 or 73.215 does not meet the 85% RMS requirement, we will continue to require a granted construction permit prior to implementation to bring the station into compliance, or alternatively allow an exhibit to the license application to reduce the authorized composite antenna pattern to meet the 85% RMS limitation. See Paragraph 63 below.

¹⁶ See 47 C.F.R. Section 73.525(d)(2). The "vertical radiation characteristic" (also called the vertical plane pattern) refers to the emissions of the antenna at some angle directly below the antenna, where 0 degrees represents the signal radiated toward the horizon (parallel with the ground, assuming flat terrain) in all directions, and 90 degrees represents up and down along the tower structure itself. This should not be confused with "vertically polarized component", which represents the manner of signal polarization at 0 degrees (parallel with the ground).

exact duplicate antenna should not necessitate any notification to the Commission. CGC would also permit program test operations by FM stations at the full authorized power upon installation of the new antenna. With respect to the proposed revision of 47 C.F.R. Section 73.310(a), CGC believes that the proposed wording of that rule section for the "Composite Pattern" for FM stations is ambiguous, and would rewrite the proposed definition.

18. *Discussion.* Where a new FM directional antenna differs from the old antenna, we believe that the ERP should be limited to half power while the station operates on program test authority for the reasons stated in Paragraph 15 above. However, where an FM antenna is an *exact* duplicate of the one being replaced -- i.e., where the manufacturer, model number, and measured composite pattern are *identical* -- we see no reason why program test operations should not be permitted to commence at full power. We will revise 47 C.F.R. Section 73.1620 accordingly.

19. We do not agree with Osenkowsky's suggestion that the replacement of a television or FM directional antenna with an exact duplicate directional antenna need not be reported to the Commission. It is critical to achieving the measured directional antenna pattern that the new antenna be mounted at the proper azimuth in the manner specified by the antenna manufacturer to eliminate the potential for interference to other stations. Thus, we feel it prudent to continue our practice of having the staff review the directional data submitted with the license application to verify proper installation. Television stations, therefore, still need to provide the information required by 47 C.F.R. Section 73.685(f), while FM stations must provide the data specified in new rule section 47 C.F.R. Section 73.1690(c)(2) as adopted herein.

20. We agree that the wording for the proposed definition in 47 C.F.R. Section 73.310(a) for the term "Composite Pattern" could be reworded to be more understandable than the language proposed in the *Notice*. Consequently, we will adopt a revised definition of this term at CGC's suggestion. See 47 C.F.R. Section 73.310(a) in Appendix E below.

21. We do not believe that the specific exception requested by DLR for a directional noncommercial educational FM station collocated with a Channel 6 TV station is necessary. The number of collocated FM educational stations which actually have been authorized pursuant to 47 C.F.R. Section 73.525(d)(2) is very small, and even fewer of these employ FM directional antennas due to the difficulties inherent in achieving a particular horizontal directional pattern while at the same time achieving a vertical radiation characteristic matching that of the television Channel 6 station. Existing noncommercial educational stations collocated with Channel 6 television stations are well aware that they are required to comply with the interference-limiting provisions of 47 C.F.R. Section 73.525. Indeed, in most instances of collocated educational FM and TV Channel 6 television stations, the parties have entered into a private agreement concerning antenna requirements.¹⁷ Consequently, we do not believe that the adoption of a specific rule section in this instance would enhance compliance with 47 C.F.R. Section 73.525.

¹⁷ These agreements, which are made between the Channel 6 television station and the noncommercial educational FM station only, generally set forth the power and antenna height for the FM station to which the Channel 6 station will not object, and may contain a private understanding as to how interference complaints will be handled.

22. Deletion of Contour Protection Status for FM Commercial Stations.

The *Notice* proposed to allow contour protection stations authorized under 47 C.F.R. Section 73.215 (the contour protection rule) to file a modification-of-license application to delete the contour protection designation, where the station in question had become fully spaced in compliance with 47 C.F.R. Section 73.207 (the minimum distance separation rule). The revised process would eliminate the need to file a construction permit application to make this change. The *Notice* indicated that the license applications would be treated on a first come / first served basis with respect to any other station's minor change application. The removal of the contour protection designation would occur upon grant of the license application.

23. *Comments.* AFCCE and DLR agree with the proposal as set forth in the *Notice*. GBI agrees with the spirit of the proposal, but questions how the first come / first served processing system will apply in the case of another station filing against the contour protected facility prior to receipt of the license application to delete the contour protection status.

24. *Discussion.* Applications to delete the contour protection designation will be processed on a first come / first served basis (based on the filing date) with respect to other minor change applications or other license applications to delete the contour protection designation, and as such will be processed no differently than minor change applications presently are.¹⁸ We see little if any advantage to be gained by retaining the more burdensome and lengthy construction permit process for deletion of the contour protection designation for stations which become fully spaced under 47 C.F.R. Section 73.207, and we will

¹⁸ It must be noted that this procedure does not differ materially from the scenario where the contour protection station files FCC Form 301 to delete the contour protection designation. Three scenarios could develop between a license application to delete the contour protection designation (A) and a conflicting minor change application (B):

1. A files before B. The license application A will be processed first. If license application A is granted, the contour protection designation for station A is removed. B must then amend its queue application to protect the maximum facilities of station A's class, in accordance with 47 C.F.R. Sections 73.207 or 73.215.

2. A and B file the same day. These conflicting applications will be considered mutually exclusive. The applicants will be apprised of the conflict and afforded an opportunity to eliminate the conflict. If A and B cannot do so, the applications will be designated for a comparative hearing. If A wins, the contour protection designation for station A is dropped and B is dismissed. If B wins, the minor change application is granted, and station A must immediately resume operations with the facilities specified in its contour protection authorization.

3. B files before A. Minor change application B will be processed first. If minor change application B is granted, the license application A to delete contour protection status will be dismissed, and station A will have to resume operations in accordance with its contour protection authorization.

In response to the query posed by GBI, concerning the risks involved in a simultaneous power increase under the procedures described above for fully spaced stations with a request to delete the contour designation, the applicant could proceed as follows to minimize the risk. Station A could first file a modification-of-license application to request deletion of the contour protection designation. After that application has been granted, Station A could then file a second modification-of-license application to implement the desired power increase under the increased ERP procedures for fully spaced stations.

adopt the rule as proposed.¹⁹ Applicants filing under this rule section will be expected to provide an analysis with the license application to demonstrate compliance with 47 C.F.R. Section 73.207.

25. Use of Formerly Licensed Main Facilities As Auxiliary Facilities (AM, FM, and Television). The *Notice* proposed to revise 47 C.F.R. Section 73.1675 to eliminate the requirement for a construction permit where a formerly licensed main facility is to be used as an auxiliary (backup) facility. The *Notice* also proposed to allow FM and TV auxiliary stations to increase or decrease ERP, and AM auxiliary stations to decrease ERP, in a modification-of-license application.²⁰ Where the frequency of the main station has changed, the proposed rule revisions would permit reactivation of the formerly licensed facilities (which were licensed to the old frequency) on the new frequency via this process.

26. Comments and Discussion. No dissenting comments were received from any party on this proposal. AFCCE, APTS, and DLR support the revisions to 47 C.F.R. Section 73.1675 proposed in the *Notice*. Crawford also supports the proposal, and asks that processing of auxiliary applications be expedited. Consequently, we will revise 47 C.F.R. Section 73.1675.²¹ We decline to put processing of auxiliary applications on a "fast track" as compared to other types of applications because doing so would unfairly remove resources from the processing of other license applications. Instead, auxiliary license applications will be processed along with other types of license applications in order by the date filed, as nearly as practical. Applications submitted under this rule will be expected to contain an exhibit demonstrating that the specified contour for the auxiliary facility does not exceed the corresponding contour for the main facility (*see* 47 C.F.R. Section 73.1675(a)), and FM and TV applications proposing increases in ERP for the auxiliary facility must also include a showing of compliance with the Commission's radiofrequency radiation guidelines. We are also adding a definition of auxiliary facility to 47 C.F.R. Sections 73.14 for AM, 73.310(a) for FM, and 73.681 for TV.

¹⁹ As the language in the *Notice* indicated, the deletion of the FM contour protection designation would not become effective until the new license application was granted.

²⁰ FM and TV increases in ERP would require the inclusion of a radiofrequency radiation analysis with the Form 302-FM or Form 302-TV application for license to demonstrate compliance with the Commission's radiofrequency radiation exposure limit.

²¹ The concerns raised by Region-20 Public Safety ("Region-20) about potential interference to land mobile operations from television stations operating on Channels 14 through 20 and Channel 69 (see paragraphs 29 and 31 below) will not affect the authorization of TV auxiliary facilities, since the distances to the contours for a given auxiliary facility will always be less than the corresponding contours of the main facility. *See* 47 C.F.R. Section 73.1675. In addition, where the Federal Aviation Administration ("FAA") has issued a determination limiting the ERP of the station to a specific value due to electromagnetic interference (EMI) concerns, the licensee or permittee must obtain a new written determination of no hazard from that agency for the proposed power level *prior* to implementing the power increase and filing the license application with the FCC. The FAA's determination must be supplied with the license application to cover the increased power. Failure to do so will be sufficient grounds for the Mass Media Bureau to require that station to reduce power to the value specified on its construction permit or license pursuant to 47 C.F.R. Section 73.1620(c) regardless of whether or not any actual interference has been reported to the FCC.

27. **Changes to the Vertically Polarized ERP for FM and Television Stations.** The *Notice* proposed to eliminate the requirement in 47 C.F.R. Section 73.1690(b)(2) that an application for construction permit be filed on FCC Form 301 for omnidirectional commercial FM stations, as well as omnidirectional commercial and nondirectional noncommercial educational TV stations, which propose to increase or decrease the amount of vertical polarization employed by the station, and where the horizontally polarized component was not being changed. Noncommercial educational FM stations not located within the distance separations specified in Table A of 47 C.F.R. Section 73.525 with respect to a television Channel 6 station could also employ this relaxed procedure to specify an increased or decreased vertically polarized ERP, not to exceed the maximum authorized ERP. In addition, the *Notice* proposed that those noncommercial educational stations within the distances specified in Table A of 47 C.F.R. Section 73.525 with respect to a Channel 6 television station would be permitted to reduce (but not increase) the vertically polarized component by this process, provided that the authorized horizontally polarized component was already greater than or equal to the authorized vertically polarized radiation component. A modification-of-license application on FCC Form 302-FM for the FM stations and Form 302-TV for the TV stations would be required, along with a showing to demonstrate compliance with the Commission's radiofrequency radiation requirements where the vertically polarized ERP was increased.

28. *Comments.* APTS and DLR agree with the proposed rule as set forth in the *Notice*. AFCCE also concurs, subject to the proviso that those FM educational stations which are collocated with television Channel 6 TV stations cannot change their antenna under the modification of license process, as a precaution to ensure that the vertical radiation characteristic of the FM educational station's antenna is properly coordinated with the vertical radiation characteristic of the affected Channel 6 station's antenna (*see* 47 C.F.R. Section 73.525(d)(2)). NAB also emphasizes that the Commission must take "special care" to protect viewers' reception of Channel 6 television from interference caused by noncommercial educational FM stations. However, NAB finds nothing in the present proposal which would potentially create additional interference to Channel 6 reception. Osenkowsky, on the other hand, would allow all licensees to choose polarization at will.²²

²² Osenkowsky questions why we are concerned with vertical polarization at all, suggesting that we simply license one ERP and let the broadcaster choose whatever polarization would best serve the station's audience. Both horizontal and vertical polarization figures are necessary for a variety of reasons. Horizontal polarization is standard for both the FM and TV services and is required for all FM commercial and TV stations, with the vertically polarized component permitted should the licensee desire to employ it. However, propagation of the vertically polarized component differs from that of the horizontally polarized component in that attenuation of the vertical polarization is greater. The Commission declined to adopt separate propagation curves for the vertically polarized component. *See Amendment of the Commission's Rules*, 8 FCC Rcd 4166 (1993); *City College of New York*, 47 R.R. 2d 1095 (1980); *Use of Horizontal or Vertical Polarization for FM Stations*, 16 R.R. 1563 (1958). In 1985 the Commission recognized that the vertical polarization could be employed to minimize interference from noncommercial educational FM stations to horizontally polarized Channel 6 television reception. In that context, it became important to know the actual horizontal and vertical ERP values for the FM noncommercial educational station in order to predict the extent to which interference could be caused to Channel 6 reception. *Memorandum Opinion and Order*, Docket 20735, 58 R.R. 2d 629, 50 Fed. Reg. 27954 (1985). Moreover, as discussed in Paragraph 29, the vertically polarized component for TV stations can adversely affect land mobile operations. Also, the addition of a vertically polarized ERP to a horizontally polarized ERP requires additional transmitter power, and also increases the predicted levels of radiofrequency radiation. Consequently, we will not adopt Osenkowsky's suggestion that we use a single ERP for FM and TV stations.

29. The Region-20 Public Safety Review Committee ("Region-20") filed comments against permitting TV stations to increase vertically polarized ERP via the modification of license process. Region-20 represents land mobile users whom it contends could receive objectionable interference should TV stations increase their vertically polarized ERP in the manner set forth in the *Notice*. Region-20 notes that the Commission previously addressed the issue of cross-service interference to land mobile operations from UHF television stations in the context of *Resolution of Interference Between UHF Channels 14 and 69 and Adjacent-channel Land Mobile Operations*, Docket 87-465, 6 FCC Rcd 5148, 56 Fed. Reg. 46729 (1991). Were television stations permitted to increase vertically polarized ERP to the maximum permitted, according to Region-20, severe interference could be caused to land mobile operations (which also employ vertical polarization).²³ Permitting such changes as increased ERP via a modification-of-license application would, according to Region-20, eliminate the "right" of land mobile licensees to file comments in opposition to any proposed TV vertically polarized ERP changes. Region 20 suggests that the Commission continue to require a construction permit application on FCC Form 301 for those TV stations on channels which could potentially affect land mobile operations (Channels 14 through 20 and Channel 69).²⁴

30. *Discussion.* For FM stations, we will adopt revisions to 47 C.F.R. Section 73.1690 to permit eligible FM stations to increase or decrease their vertically polarized ERP in a Form 302-FM application for license. However, eligible noncommercial educational FM stations located within the distances specified in Table A of 47 C.F.R. Section 73.525 with respect to a Channel 6 television station which seeks to use the streamlined procedures will be limited to reductions in ERP only.²⁵ By excluding from the one-step licensing process increases in ERP in either polarization for noncommercial educational stations located near a Channel 6 station, we avoid any worsening of existing interference caused by these stations to viewers' reception of television Channel 6.²⁶

²³ Region-20 characterizes the addition of vertical polarization as a "major" action, and concludes that the Commission does not have any authority to waive the requirement for a construction permit for TV stations adding vertical polarization under the *Telecommunications Act of 1996, supra*. However, 47 C.F.R. Section 73.3572(a) does not include the addition of vertical polarization as an element which is defined as a major change. Consequently, an application to accomplish this result is defined as a minor change, and is eligible for conversion to a one-step process under the *Telecommunications Act of 1996*.

²⁴ In its comments in this proceeding, Region-20 also asks the Commission to address the general issue of interference to land mobile operations, based on the similarity to issues raised in the Commission's blanketing interference proceeding, MM Docket 96-62. This matter is outside the scope of the present proceeding.

²⁵ For the reasons explained in Footnote 9, noncommercial educational FM stations which employ separate horizontal and vertical antennas mounted at different levels remain ineligible to increase or decrease the vertical ERP from its authorized value without a construction permit.

²⁶ Even where increased ERP in one polarization could not adversely affect another FM station (*e.g.*, where a horizontally polarized only station adds an equal vertically polarized ERP), the increased ERP can still adversely affect reception of television Channel 6 (as defined by the procedures in 47 C.F.R. Section 73.525). This necessitates a new interference analysis pursuant to 47 C.F.R. Section 73.525 in a construction permit application on FCC Form 340.

31. With respect to television stations, we find meritorious and will adopt Region-20's recommendation to exclude those television stations authorized on Channels 14 and Channel 69 from the simplified procedure set forth in the *Notice*. In particular, *Resolution of Interference Between UHF Channels 14 and 69 and Adjacent-channel Land Mobile Operations*, 6 FCC Rcd at 5153, stated that television stations on Channels 14 and 69

must take steps before construction to identify potential cases of interference caused by out-of-band emissions, land mobile receiver desensitization or intermodulation. They must install necessary filters, take other precautions and submit evidence that no interference is being caused before they will be permitted to transmit programming on the new facilities. Thus, they will not be allowed to commence automatic program tests pursuant to Section 73.1620 or to commence operation with the modified facilities pursuant to Section 73.1615. The responsibility of a new or modified TV channel 14 or 69 station to correct interference to an existing land mobile facility [has been] incorporated into the Commission's rules [as 47 C.F.R. Section 73.687(e)].

Accordingly, we will exclude those television stations on Channels 14 and 69 from the simplified procedures proposed in the *Notice* for increases to the vertically polarized ERP, and continue to require those television stations to apply for such changes via a construction permit application on FCC Form 301 or FCC Form 340.

32. Similarly, since the spectrum used by television Channels 15 to 20 is also shared with land mobile users in particular urban areas, we believe that caution is warranted to prevent the creation of new interference to land mobile users on these frequencies in these areas. As we have not to date conducted an inquiry in a rulemaking proceeding as to the potential for interference to land mobile operations from television Channels 15 to 21, we will not now revise 47 C.F.R. Section 73.687(e) to incorporate specific procedures for these television stations. Nevertheless, because of the potential for disruptive interference to land mobile operations, the large expense attendant in replacing a television antenna, the potentially larger costs of resolving interference created by the changed television facilities, and the lack of any additional information addressing the potential for such interference, we adopt in part Region-20's suggestion to continue to require the filing of a construction permit application for proposed increases to the vertical ERP for television stations on these channels. Specifically, with regard to television applicants for changes on Channels 15 to 21, we will require a construction permit for television stations on Channels 15 through 21 where the television station will be located within 341 km (212 miles) of the reference coordinates of a land mobile operation operating on the same channel, or within 225 km (140 miles) from the reference coordinates of a first-adjacent channel land mobile operation. These distances correspond to the separations presently in use for creating new TV allotments on these channels while protecting land mobile operations.²⁷ The locations of the urban areas and corresponding reference coordinates which must be protected are listed in 47 C.F.R. Section 74.709(a) and (b). We believe that the continuation of the existing construction permit process for television stations near a land mobile operation generally will bring to light likely cross-service interference problems before they exist in fact. Accordingly, we will revise the language of 47 C.F.R. Section 73.1690 to address these matters.

²⁷ See *Second Further Notice of Proposed Rulemaking, Advanced Television Systems*, 57 Fed. Reg. 38652, 7 FCC Rcd 5376, 5384 (1992) at Footnote 53.

33. **Changes in Height of Antenna Radiation Center (FM and TV).** Presently, 47 C.F.R. Section 73.1690(c)(1) limits FM and TV stations from mounting their antenna radiation centers more than two meters above or below the authorized antenna radiation center height without first obtaining a construction permit. The *Notice* proposed to maintain the permitted variance without the requirement for a construction permit at two meters above the authorized antenna radiation center height, but expand it to permit installation up to four meters below the authorized antenna radiation center height. This change would provide permittees and licensees additional flexibility in mounting the antenna, which can be affected by the location of guy wires, cross braces, adjacent antennas, etc. It would also eliminate the need in many cases for a construction permit application for a minimal change in antenna height, and without a noticeable change in coverage. The *Notice* indicated that we would retain the authorized values, not the actual values, on the license authorization.

34. *Comments.* APTS supports the proposed rule change. DLR, Gallagher, Crawford, and Mullaney also support the proposed rule revision, but would permit unlimited decreases in the antenna radiation center height by this procedure, provided that the necessary signal strength is maintained over the community of license. Similarly, Crawford, CGC, and Charles I. Gallagher, P.E. ("Gallagher") would extend the proposed procedure to permit increases or decreases in the height of the antenna radiation center as well as ERP, provided that the new combination of ERP and antenna height above average terrain did not exceed the maximum permitted for the station's class. Mullaney also questions why the license application would be issued with the authorized antenna height values and not the actually constructed values.

35. *Discussion.* As we have received no objection to expanding the permitted range of variance from the construction permit values from two meters variance from the authorized value to two meters up or four meters down, we will adopt the proposed revision to 47 C.F.R. Section 73.1690(c)(1).²⁸ However, we decline to expand the rule to incorporate the unlimited changes in height of antenna radiation center (and thus HAAT) advocated by several commenters. While we realize that the consulting engineers who filed these comments are cognizant of the relationship between changes in ERP and the height of the antenna radiation center (and thus HAAT), many licensees and permittees do not use consulting services and may not be so well informed. Thus, a station might inadvertently place its antenna some meters higher on the tower, but not lower its ERP to conform the ERP / HAAT combination to meet the maximum parameters specified in 47 C.F.R. Section 73.211(b) for an FM station or 47 C.F.R. Section 73.614 for television stations. This could result in interference caused to other stations. On the other hand, significant reductions in the height of the antenna radiation center could create a radiofrequency radiation hazard which did not exist for the authorized facility, as well as jeopardize coverage of the community of license.²⁹

²⁸ Applicants should be aware that a redetermination of the levels of radiofrequency radiation produced may be required if a reduction in the height of the antenna radiation center is made, particularly where the antenna was initially authorized very close to ground level or a rooftop.

²⁹ Also, reductions in antenna radiation center height beyond the tolerance level would likely result in an increase in the number of informal objections received alleging shadowing or lack of line-of-sight to the community of license. This would slow processing of these applications since additional processing would be needed, and result in greater expense to the station and to the Commission.

These matters could prove very costly to correct, with the applicant paying twice for construction -- once for the deficient construction and once to correct it.³⁰ We also believe that unlimited changes in the height of antenna radiation center would invite abuse by permitting applicants to seek authorizations for facilities which will not be built to the authorized values. None of these outcomes are easily resolved, and thus they are inimical to our intent in this rulemaking of specifying ways to streamline processing of certain applications without causing undue burden on applicants or the Commission. Consequently, we will not adopt the commenters' suggestions that we allow unlimited changes in the antenna radiation center height.

36. Regarding Mullaney's question concerning what values are to be placed on the license authorization, the *Notice* at Paragraph 17 stated that the reason behind the proposal to retain the authorized values on the license application, and not specify the actual values for the antenna radiation center heights, was to prevent "creep" of the authorized antenna radiation height. We remain concerned that a licensee may employ successive modification-of-license applications to achieve a result which would otherwise require consideration of additional factors in a construction permit application.³¹ Further, specifying the actual values on the granted license could result, in some instances, in a corresponding reduction in station classification.³² It could also require a reduction in power to maintain station class where a two meter increase in antenna radiation center height causes the ERP / HAAT combination to exceed the maximum permitted values for the station class.³³ These difficulties are avoided by retaining the authorized values on the license. Thus, while the actually constructed values must be specified on the license application, we will retain the authorized values on the license and in the Commission's engineering database. Those licensed values will be used for the prediction of contours and coverage.

37. **Main Studio Waiver Requests (AM, FM, and TV).** The *Notice* proposed to eliminate the requirement for an application on FCC Form 301 for commercial applicants or Form 340 for noncommercial educational applicants seeking a waiver of the main studio rule (47 C.F.R. Section

³⁰ In contrast, a correction in ERP generally can be accomplished by making adjustments to the transmitter at little or no cost.

³¹ For example, a licensee may propose to reduce the height of the antenna radiation center by four meters, under our proposed procedure, in a modification-of-license application. Once that application was approved, the licensee could again request another four meter reduction in a modification-of-license application. This process could be repeated several times.

³² For example, consider a Class B FM station operating with 25 kW ERP at a HAAT of 103 meters. A four meter reduction in the antenna radiation center height would produce a corresponding decrease in the HAAT to 99 meters. Because 25 kW ERP at 99 meters HAAT is classified as a Class B1 station, grant of a license with the actual facilities would also have the effect of downgrading the station and allotment to Class B1. *See Lower Classification of an FM Allotment*, MM Docket 88-118, 4 FCC Rcd 2413, 54. Fed. Reg. 11953 (1989).

³³ Again using a Class B FM station as an example, assume that the station was authorized for operation with maximum Class B facilities of 50 kW ERP at 150 meters HAAT. A two meter increase in the height of the antenna radiation center would cause the HAAT to increase to 152 meters, thus exceeding maximum permitted Class B facilities. Thus, the station would be compelled to reduce ERP to compensate for this minimal change.

73.1125). Instead, the *Notice* proposed to allow applicants to file these requests in a letter. The *Notice* proposed retention of the filing fee applicable to commercial applications of this type, whereas noncommercial educational applicants would continue to be exempt from the filing fee requirement.³⁴ This process would separate the main studio waiver requests, which generally do not require engineering analysis, from the minor change applications which do require technical review.

38. *Comments.* DLR, APTS, AFCCE, and Mullaney's comments indicate agreement with the revisions to the main studio rule as set forth in the *Notice*. Osenkowsky, on the other hand, argues that in this era where licensees own multiple stations, the main studio concept is outdated and should be revised to allow any location to serve as a main studio location. AFCCE and GBI also ask the Commission to clarify the procedure for the processing of requests which employ alternate contour prediction methods to demonstrate compliance with the main studio rule.

39. *Discussion.* An overall review of the main studio rule, as suggested by Osenkowsky, falls outside the scope of this rulemaking proceeding, which is primarily concerned with simplifying existing procedures and reconciling broadcast rules with existing policy. Therefore, we will adopt the changes to 47 C.F.R. Section 73.1125 as proposed in the *Notice* and permit requests for variance of the main studio location to be filed by letter, together with the applicable fee and fee processing form (FCC Form 159). With respect to supplemental showings for FM stations, which employ alternate contour prediction methods and are filed to obtain Commission concurrence that a particular location complies with the main studio rule, we cover that issue in Paragraphs 68 through 72 below. We note, however, that a *Notice of Proposed Rulemaking*, in MM Docket 97-137, FCC 97-182, 12 FCC Rcd ----, was released on May 28, 1997 to examine what additional changes should be made to the main studio rules.

40. **Commercial Stations Changing to Noncommercial Educational Status (AM, FM, and TV).** The *Notice* proposed to delete the two-step requirement that AM or FM commercial stations changing to noncommercial educational status use a construction permit application for the change, followed by a covering license application. Instead, these licensees would be permitted to file for the change on a modification of license application, with an appropriate exhibit containing the information which is required in Sections II and IV of FCC Form 340. The change in the licensed status would occur upon grant of the license application, and the station license would be reissued under the license application's file number. Conversely, the *Notice's* proposed 47 C.F.R. Section 73.1690(c)(8) would permit noncommercial educational FM stations in the commercial portion of the FM band, noncommercial AM radio stations, or TV stations, to use this process to become licensed as commercial stations.

41. *Comments and Discussion.* Osenkowsky, AFCCE, and DLR all support the revisions as proposed in the *Notice*, and no dissenting comments were received. However, we wish to emphasize that FM or TV licensees operating on a channel specifically reserved for noncommercial educational use in the Table of Allotments will be unable to change to commercial status via this

³⁴ Effective September 12, 1996, this filing fee was increased to \$690.00. See *Amendment of the Schedule of Application Fees Set Forth in Sections 1.1102 through 1.1107*, Gen. Docket 86-285, 11 FCC Rcd 10231, 61 Fed. Reg. 41967 (August 13, 1996), released August 7, 1996.

process.³⁵ This represents an allotment issue, not a licensing issue, and must be dealt with in the context of a rulemaking proceeding to change the designation of the allotment. We will revise the final rule 47 C.F.R. Section 73.1690(c)(9) accordingly.³⁶

42. **Additional Clarifications to 47 C.F.R. Sections 73.1620 and 73.1690.** These two rule sections deal with program test authority and modification of transmission system requirements, respectively. In addition to incorporating the substantive rule changes proposed in the *Notice* for these two rule sections, the *Notice* proposed to rewrite existing portions of these sections to simplify and clarify them. We noted that these two rules have been the sources of repeated requests for interpretation. While the proposed rule changes lengthen the rule, we indicated that the revisions would better serve permittees and licensees.

43. *Comments and Discussion.* CGC's and Mullaney's comments indicate that the proposed revision to 47 C.F.R. Section 73.1690(b)(1), which prohibits the construction of a new tower for broadcast purposes, would also appear to prohibit the replacement of a tower structure with another tower structure of the same height, coordinates, and site elevation. However, we clarify that this rule section would not apply to a replacement tower structure under these circumstances, and revise 47 C.F.R. Section 73.1690(b)(1) accordingly. On the other hand, if the coordinates, structure height, or site elevation change, the prohibition would apply, and a construction permit would be required prior to tower replacement.

44. CGC and Mullaney also state that the proposed revision to 47 C.F.R. Section 73.1690(b)(2) could be construed to prohibit a licensee from changing an antenna from one tower to another tower located at the same coordinates without a construction permit.³⁷ For a nondirectional FM or TV station, permitting such change without the filing of a construction permit application would not appear to pose a problem provided that the antenna height above average terrain (HAAT) remains unchanged (and assuming that the new tower was properly registered with the Commission). We will therefore permit this change through a modification-of-license application, and will revise 47 C.F.R. Section 73.1690(b)(2) accordingly. However, we will not extend this procedure to a directional FM or TV station, since antenna placement on the tower, as well as the orientations of the tower faces themselves, are critical to achieving the measured directional pattern, and would require a revised pattern measurement and an installation which differs from the old antenna configuration. In such a case, we will continue to require a construction permit prior to making the change.

45. AFCCE suggests that a provision be added to 47 C.F.R. Section 73.1690(b) to require a construction permit application for changes to the antenna system of a noncommercial educational FM station if it is collocated with a television Channel 6 station. Although not stated in AFCCE's comments, it

³⁵ The Tables of Allotments are contained in 47 C.F.R. Section 73.202(b) for FM commercial radio and 47 C.F.R. Section 73.606(b) for television.

³⁶ The *Notice's* 47 C.F.R. Section 73.1690(c)(8) was changed to 73.1690(c)(9) to accommodate additional rule changes adopted by this *Order*.

³⁷ CGC acknowledges that present FCC procedures do not permit such a change without a construction permit.

is clear that this provision is suggested out of concern that interference will be caused to Channel 6 reception. However, as we stated in Paragraphs 11 and 30 above, we have determined that most FM noncommercial educational applicants may reduce both the horizontal and vertical ERP from the authorized values without the need for a construction permit. This will pose no increased risk of interference to Channel 6 reception. Moreover, as we noted in Paragraph 21 above, only a few FM educational stations have been authorized to be collocated with a Channel 6 station pursuant to 47 C.F.R. Section 73.525(d)(2), where the vertical radiation characteristic of the antenna is important. Existing noncommercial educational stations collocated with Channel 6 television stations are well aware that they are required to comply with the interference-limiting provisions of 47 C.F.R. Section 73.525. Indeed, in most instances of collocated educational FM and TV Channel 6 television stations, the parties have entered into a private agreement concerning antenna requirements. Therefore, we do not believe that adoption of a specific rule section on this issue would enhance compliance with 47 C.F.R. Section 73.525.

46. No other comments were submitted regarding the proposed rule section changes, except as covered in other sections of this *Order*.

47. **Continuation of Protection to AM Stations.** The *Notice* proposed to codify into a new rule section (47 C.F.R. Section 73.1692) our present policies with regard to protecting AM stations from other broadcast stations locating antennas on the same tower or constructing a tower nearby. To date, these policies have taken the form of special conditions applied to broadcast station construction permits. Because many of the changes adopted in this *Order* would eliminate the need for a construction permit prior to implementation of the change, we are concerned that AM stations would lose necessary protection, with possible adverse consequences for the AM radio service.

48. *Comments.* Generally, commenters agreed with the Commission's proposals regarding AM protection, but concluded that the proposal did not go far enough to protect AM stations. AFCCE states that the same policy for broadcast stations should also be applied to towers for other services (e.g., cellular and personal communications services (PCS), specialized mobile radio (SMR)), indicating that the present rule governing land mobile towers (*see* 47 C.F.R. Section 22.371) differs from the rules proposed in the *Notice*. Crawford, Mullaney, and DLR agree with this assessment. NAB "enthusiastically supports" the proposal to codify the protection policy, but would add an explicit provision to state that the broadcast licensee or permittee is responsible for all costs incurred in determining the impact of a new or modified broadcast facility on an AM station. Mullaney, DLR, and Osenkowsky each suggest instances in which AM proof of performance requirements could be reduced; for example, exempting proofs related to the installation of an antenna 20 feet or less above an existing building, or where an FM antenna is replaced with another antenna of approximately the same length. Osenkowsky also states that AM proof-of-performance measurements taken in different seasons may skew a comparison of the results. Osenkowsky suggests that the Commission should consider waivers of the protection requirements.

49. *Discussion.* Our intent in this rulemaking proceeding was simply to insure that AM stations continue to be afforded the protection from other broadcast installations which they have received in the past, despite the elimination of the requirement for a construction permit for certain types of changes. We therefore will adopt a new rule (47 C.F.R. Section 73.1692), so as to preclude any lapse in protection.³⁸ We recognize, however, that the points made by the commenters about inconsistent

³⁸ FM and TV translators, and low power TV stations, also will be subject to 47 C.F.R. Section 73.1692. *See* 47 C.F.R. Sections 74.780 and 74.1237(e) as adopted herein.

protection to AM radio stations by different services and also the burdens on AM licensees of unnecessary performance measurements may have merit. Issues relating to directional AM radio station signal measurements are being considered in another rulemaking proceeding (*see Notice of Inquiry* in MM Docket 93-177, 8 FCC Rcd 4345 (1993)).

50. With respect to the costs-burden issue raised by NAB, we agree that it generally remains the responsibility of the licensee or permittee making the changes to a broadcast facility to cover the costs associated with determining the impact of the changes to an AM station. However, in some instances the AM station is already operating at variance with its authorization prior to the arrival of the additional broadcast station. In that case, we do not believe that it would be appropriate for the broadcast station to have to pay to correct the existing AM variances. For this reason, we will not include NAB's suggested all-inclusive language regarding financial responsibility into the new rule section.

51. **Clarification to Channel 6 Television - FM Noncommercial Educational Rules in 47 C.F.R. Section 73.525 and 47 C.F.R. Section 73.599.** The *Notice* proposed to add a new rule section to eliminate an anomaly in the present rule 47 C.F.R. Section 73.525, under which it is not clear how an FM noncommercial educational station within the 90 dBu contour of a Channel 6 television station is to protect that TV station from interference. The proposed rule would assume that the Channel 6 field strength remains constant within the 90 dBu contour, and the interfering contour would then be based on the ratio corresponding to the 90 dBu signal level (*see* Figure 1 of 47 C.F.R. § 73.599). This procedure was originally proposed in Docket 20735 in 1982, but was not incorporated into the final rule, 47 C.F.R. Section 73.525.³⁹ Nevertheless, as we stated in the *Notice*, it has been our policy to apply this procedure in the small number of cases in which the issue has arisen.

52. *Comments and Discussion.* NAB's comments conclude that the proposed rule section would not adversely impact reception of television Channel 6. DLR agrees.⁴⁰ AFCCE also supports the proposed rule change. No dissenting comments were received. Accordingly, we will adopt the revision to 47 C.F.R. Section 73.525 as proposed in the *Notice*.

³⁹ *Second Further Notice of Proposed Rulemaking*, BC Docket 20735, FCC 82-225, 47 Fed. Reg. 24144 (1982) at Paragraphs 29 and 30.

⁴⁰ DLR also suggests that 47 C.F.R. Section 73.525(e)(4) be revised to refer to both "city" and "Census Designated Place (CDP)". This would, according to DLR, provide a greater degree of protection from interference created by noncommercial educational FM stations to reception of television Channel 6 in heavily populated CDPs. However, because this issue could materially affect the existing relationship between noncommercial educational FM stations and television Channel 6 stations, we believe that this issue must be raised in the context of a rulemaking proceeding specifically aimed at addressing this matter. We do not believe that the current proceeding contains a sufficiently complete record for us to properly address this matter. Consequently, we will not decide this issue in the present *Order*.

53. **Requirement that the FM Measured Directional Composite Antenna Pattern Be At Least 85% RMS of the Authorized FM Directional Composite Pattern.** For FM commercial and noncommercial educational stations, the *Notice* proposed to add a new 47 C.F.R. Section 73.316(c)(9) to require that the "area" within the final measured FM pattern be at least 85% of the "area" within the authorized directional composite pattern. The *Notice* indicated that this proposed rule would codify existing policy, and cited two letters as examples of the application of this policy.⁴¹ The *Notice* indicated that the staff adopted the 85% policy after some applicants proposed final measured patterns which were greatly reduced from the authorized composite directional pattern, and indicated that a standard was necessary to ensure efficient use of scarce FM broadcast spectrum. The *Notice* also concluded that a standard would also deter applicants from proposing directional antenna patterns which could not be achieved in practice. Finally, the *Notice* indicated that this rule would conform the FM service to the AM service in this regard.

54. *Definition of RMS.* Before discussing specific comments, we note that most commenters questioned the use of the term "area" in the *Notice* rather than RMS ("root mean square").⁴² The RMS value is related to the area within the relative field pattern (not service area) by the *square root*, and is a less restrictive requirement. In fact, the existing staff policy utilizes RMS, not area, and our use of the term "area" was not intended to alter that policy. Accordingly, all further discussion and the rule adopted by this *Order* will be expressed in terms of RMS.⁴³

55. *Comments.* AFCCE agrees that there is a "need to eliminate those composite patterns which result in contours in which the areas unrealistically correspond to the measured pattern." Mullaney believes that the RMS threshold should be lowered to 70%, but that any rule adopted should not require any more than 85% RMS. Gallagher notes that the 85% RMS policy was "easy to apply and not difficult to achieve in the field [and that] the RMS of a relative field pattern is an indicator of the overall efficiency of the pattern." Gallagher and Crawford separately note that the corresponding rule for the AM service (47 C.F.R. Section 73.151(a)) requires that the RMS of the measured AM pattern must be at least 85% of

⁴¹ *Letter to Sunbury Broadcasting Corp.*, concerning license application BLH-940805KC, Reference No. 1800B3-EPD, dated February 22, 1996; *Letter to Randolph Victor Bell*, concerning license application BLH-951027KA, Reference No. 1800B3-JAG, dated November 21, 1995. The difficulties with these license applications have since been resolved, and the licenses granted.

⁴² The RMS values for a composite pattern in relative field may be determined from the following formula:

RMS = the square root of

$$\frac{[(\text{relative field value } 1)^2 + (\text{relative field value } 2)^2 + \dots + (\text{last relative field value})^2]}{\text{number of relative field values summed}}$$

where the relative field values are taken from at least 36 evenly spaced radials for the entire 360° of azimuth.

⁴³ Many of the comments on this topic were centered on this confusion about whether RMS, coverage area, or the area within the relative field pattern was being used by the Commission to define its proposed 85% rule.

the standard pattern. Crawford concludes that an 85% RMS standard is "reasonable and not overly burdensome, [and that] antenna manufacturers are keyed to this policy." Shively Labs ("Shively"), a manufacturer of directional antennas, states that it presently "manufactures FM directional antenna systems that comply with the [85% RMS] policy," and states that the policy should remain, but finds that the comments submitted by DLR may support eliminating the requirement altogether. GBI supports adoption of an 85% RMS requirement, while Osenkowsky also voices "general support".

56. DLR, on the other hand, opposes the adoption of an 85% RMS rule, believing that the proposed rule is unnecessary and that an 85% RMS requirement places an "unwarranted burden on stations which must use, or choose to use a directional antenna."⁴⁴ DLR also inquires whether an 85% rule would apply to those stations which employ a directional antenna solely to avoid wasting energy over unpopulated areas such as the ocean or the Florida Everglades. DLR also disagrees with the *Notice* statement which indicated that adoption of an 85% RMS policy would conform the FM service to the AM service in this regard, stating that in the case of AM stations, the limitation was adopted "because of the design of certain [AM] antenna systems which produced . . . internal losses": these factors are not present in FM antennas. Sunbury agrees with DLR that a rule section should not be adopted. CGC also agrees, concluding that any rule, if adopted, should be the focus of a separate general rulemaking on directional antennas. CGC also adds that, should we adopt a rule here, we should grandfather those stations that may have been authorized despite noncompliance with this requirement.

57. DLR also questions the reference in the *Notice* which stated that a directional pattern which did not meet the proposed 85% requirement represented an inefficient use of spectrum, in that the larger authorized composite pattern would protect service which did not exist. As an example, DLR compares maximum and minimum Class A operations on a commercial channel, reaching the conclusion that the present commercial allocations scheme (which is based on minimum spacing requirements) is also inefficient in this regard, in that it protects facilities as if they are operating with maximum facilities even when they are not. Mullaney provides a similar example for a Class C station. CGC, referring to DLR's analysis, also asks whether DLR's example constitutes "wasted spectrum."

58. Regarding the mounting of directional antennas on a tower, AFCCE notes that the location of tower members can make it difficult to achieve a desired composite pattern, particularly since the tower affects the vertically polarized component. AFCCE notes that changes in measurement equipment by the antenna manufacturer can make duplication of older directional patterns difficult. AFCCE also contends that the advent of advanced television could increase the competition for tower space, thereby making site location more difficult and causing some stations to move to sites where a directional antenna will be necessary. Shively Labs ("Shively") concludes that the Commission "has chosen to look only at small parts of a very complex issue."⁴⁵ Shively also states (and offers an example to show) that it is often more

⁴⁴ DLR also notes that for some directional antennas, the vertically polarized component and the horizontally polarized component may have different composite radiation patterns. DLR is concerned that while the combination of the vertically polarized component and the horizontally polarized component exceed 85% RMS, the standard horizontally polarized component by itself may have a much smaller RMS. However, we do not examine the RMS of the individual components, but only of the combined pattern: if the combined pattern is 85% RMS of the authorized pattern, the license application is acceptable.

⁴⁵ Shively believes that the Commission should review all aspects of FM directional antennas in a comprehensive rulemaking proceeding devoted to that issue, so that antenna manufacturers, broadcasters, consultants, and the

difficult to fabricate a directional antenna with a small null than a larger one, while still complying with the 85% RMS policy. Shively also states that in many cases the broadcaster may not have foreknowledge as to the dimensions and type of tower the owner will erect and without that information, pattern prediction may be difficult. Consequently, Shively concludes that a more thorough review of the FM directional antenna rules and policies is warranted.

59. *Discussion.* We will first provide a summary of the policy objective of the proposed rule, and then we will discuss the proposed 85% RMS rule itself in Paragraph 63 below. Based on the comments received, it would appear that the policy objective behind the proposed rule is not well understood and merits further clarification. This requires an understanding of the assignment principles used in authorizing the various types of FM stations. The vast majority of stations in the commercial portion of the FM band have been and continue to be assigned solely on the basis of distance separation requirements found in 47 C.F.R. Section 73.207. Stations assigned in this manner are protected from interference from new or modified assignments solely on the basis of these distance separation requirements. In the noncommercial educational portion of the FM band portion, however, assignments are made without regard to distance separations. Instead, service field strength contours are protected against overlap from interfering field strength contours.⁴⁶ See 47 C.F.R. Section 73.509. Thus, the distance to a station's service contour determines the degree to which it receives protection from other stations and the degree to which it precludes other potential cochannel and adjacent channel stations from locating nearby. Certain stations in the commercial portion of the FM band are also assigned utilizing a contour protection scheme similar to that used for noncommercial educational FM stations, although these stations must also meet some distance spacing requirements. These stations are assigned under the provisions of 47 C.F.R. Section 73.215.

60. The contour protection system works efficiently provided that service is actually provided to the contour which is being protected. If it is not, other stations are unnecessarily precluded from providing service to nearby areas. Gaps between protected contours and actual service contours represent wasted spectrum, in that the capacity of the FM band to provide actual service is diminished. The protected contours of stations authorized under 47 C.F.R. Sections 73.215 and 73.509 are determined in part by their radiated power. For non-directional FM stations this is simply the ERP specified on their license or permit. For directional FM stations, where the radiated power varies with direction, a composite radiation pattern is used to determine the location of the protected contour.⁴⁷ Directional stations are

Commission's staff will all know what the requirements are for FM directional antenna operation. For example, Shively suggests that a single format be adopted to standardize licensing of FM directional antennas, citing as an example varying procedures between manufacturers regarding installation instructions and pattern measurements. Shively suggests that such a format would permit the Commission to know for certain that a directional antenna installation was completed properly. Shively also questions whether any policy is needed at all, noting that the person completing the Form 301 or Form 340 construction permit application does not need to know the final antenna configuration. To require a broadcaster to supply a measured pattern with a construction permit application is expensive, according to Shively, and risky since the Commission may reject the application.

⁴⁶ Stations in the AM broadcast service are also assigned using the contour protection method.

⁴⁷ Directional antennas are used extensively by noncommercial educational FM stations authorized under 47 C.F.R. Section 73.509 and FM contour protection stations authorized under 47 C.F.R. Section 73.215 in order to operate from locations where non-directional operation would be precluded due to interference to other nearby cochannel and adjacent channel stations.

authorized and subsequently protected from interference from other stations based upon a composite radiation pattern submitted with the application for construction permit. Following grant of the application, the antenna is manufactured and its radiation pattern measured. The measured pattern must be completely encompassed by the authorized composite pattern in order to assure that interference will not be caused. However, in some instances the measured pattern may be substantially less than the authorized composite pattern in some directions. In these directions the distance to the actual service contour (as determined by the measured pattern) would be substantially less than the distance to the protected contour (as determined by the authorized composite pattern). As discussed above, this represents wasted spectrum and potentially forecloses service to nearby areas from other cochannel and adjacent channel stations. The policy objective of the proposed rule is to prevent this. Thus, we will apply the proposed rule only to directional noncommercial educational FM stations authorized pursuant to 47 C.F.R. Section 73.509 and directional stations authorized pursuant to 47 C.F.R. Section 73.215. It will not be applied to fully spaced commercial stations utilizing a directional antenna simply to conserve energy by restricting radiation over unpopulated areas.⁴⁸

61. As indicated in the comments above, some parties noted that commercial FM stations assigned pursuant to the minimum spacing requirements of 47 C.F.R. Section 73.207 are permitted to operate with the minimum facilities allowed for their station class, yet are generally protected from interference caused by other stations by virtue of the minimum spacing rules as though they were operating with the maximum facilities for their class. The comments ask why this occurrence is not considered an inefficient use of spectrum, if the apparently less-egregious directional antenna shortfall (where the reduced contour occurs only in some directions) is deemed so. The answer is that the rules adopted to govern the assignment of commercial FM stations were developed to achieve policy objectives in addition to spectrum efficiency. Specifically, the Commission concluded in 1962 that minimum distance separation requirements in conjunction with a Table of Allotments (which are now embodied in rule sections 47 C.F.R. Sections 73.207 and 73.202(b), respectively) formed the best means to:

- 1) insure efficiency of channel use (as compared to the random pattern of application filing);
- 2) make provision for future needs, such as needs of smaller communities where support for radio service may be lacking at the present time; and

⁴⁸ Stations authorized pursuant to 47 C.F.R. Section 73.207, which are authorized by spacing and not contour protection, are always permitted to operate with maximum facilities nondirectionally in the absence of other constraints. Contour protection applicants applying pursuant to 47 C.F.R. Section 73.215 must also protect that Section 73.207 station as if that station were operating with the maximum facilities permitted for its class.

- 3) ensure compliance with 47 U.S.C. Section 307(b), which calls for fair and equitable distribution of facilities, than does random application filing for communities.

Revision of FM Rules, First Report and Order, Docket 14185, 23 R.R. 1801, 1817. In adopting these rules, however, the Commission recognized also that many stations, for economic reasons or otherwise, would not immediately be able to provide service to the full maximum facilities for the authorized station class. Therefore, the Commission decided that it was better to allow commercial FM stations the opportunity for future growth and expanded service within their specified station class, which would allow improved service at a later date in and around the community of license, as opposed to fixing a commercial station's protected service at the present level.⁴⁹ Consequently, the fact that a commercial FM station is currently operating with less than the maximum facilities for the station class does not, by itself, represent a permanent inefficient use of spectrum.

63. We believe that a rule section should be adopted to require that the RMS of the measured pattern be at least 85% of the authorized composite antenna pattern RMS for stations covered under 47 C.F.R. Sections 73.509 and 73.215, for the reasons explained above. This figure achieves a reasonable balance between the needs of antenna manufacturers for an adequate tolerance in adjusting directional antennas and the policy objectives discussed above regarding efficient utilization of the FM broadcast spectrum. It does so without requiring antenna manufacturers to predict distances to field strength contours. Moreover, as the comments show, the present 85% RMS policy has proven to be reasonable. As we stated above, we agree with DLR that the rule section need not apply to those stations employing a directional antenna for purposes for other than contour protection. These non-contour protection stations will be excluded from the rule. In addition, we will provide a simplified procedure for those stations covered by this new rule section that cannot meet the 85% RMS requirement. Our present procedure has been to require the filing of an application to modify the construction permit to change the directional pattern by shrinking the composite antenna pattern until it complies with the 85% policy. In light of the changes to the Communications Act referenced in Paragraph 1 above, this is no longer necessary. Consequently, we will permit reductions in the authorized relative field values to be specified along pertinent azimuths in a license application, so as to reduce the authorized composite antenna pattern to comply with the 85% RMS rule. We will also revise the rules adopted herein to accommodate this procedure. Moreover, as suggested by CGC, we will not perform a "backwards review" to find authorized stations where the 85% issue has not been raised and which do not meet this policy, nor will we require such stations to comply until a change is made at some future date.

64. We decline, however, to consider in this rulemaking the effects of tower mounting on a directional pattern, or the other directional antenna matters raised by Shively. Consideration of these matters falls outside the scope of this rulemaking, which is simply concerned with codifying an existing policy and streamlining the application process.

⁴⁹ For 35 years now, this policy objective has been maintained, with the result that many stations which were previously operating with minimum facilities for their station classes are now fully serving their allotted service areas. Many more continue to upgrade their operations to the maximum permitted facilities as circumstances permit.

65. **Fees for Modification of License Applications.** The *Notice* indicated that the Commission does not charge an application filing fee for modification of license applications, and stated that we would not charge a fee for the additional modification of license applications generated by the new procedures adopted herein.

66. *Comments.* No comments were received in opposition to this issue. Consequently, we will adopt revisions to 47 C.F.R. Section 1.1104 to accommodate this new procedure.⁵⁰ However, although an application form is no longer required, main studio waiver requests must be submitted with the minor change filing fee of \$690.00 and the Fee Form 159. *See* Paragraph 39 above.

ADDITIONAL SUGGESTIONS MADE BY COMMENTERS

67. The *Notice* asked for suggestions concerning additional rule changes or other changes which could expedite the streamlining of applications. These are addressed in the following paragraphs.

68. **Supplemental Methods for Contour Prediction.** GBI has asked the Commission to clarify its policy on the use and acceptance of supplemental methods for contour prediction. The Commission has accepted the use of supplemental contour prediction methods, such as NBS Technical Note 101, terrain roughness, or Longley-Rice analyses, in circumstances where applicants who were faced with unusual terrain considerations have sought to demonstrate that the principal community contour will encompass the community of license or main studio location, contrary to the result which would be predicted by the standard contour prediction methods in 47 C.F.R. Section 73.313 for FM and 73.684 for television.⁵¹ Supplemental showings have also been accepted for review in the context of a noncommercial educational FM station demonstrating compliance with the Channel 6 interference provisions of 47 C.F.R. Section 73.525. Commenters in this proceeding have asked for clarifications as to what criteria apply to these types of showings.

⁵⁰ For modification of license applications, the applications should be directed to the Office of the Secretary (NOT Mellon Bank) at the following address:

Office of the Secretary (1800**)	* where 1800B2 applies to AM station applications,
Room 222	1800B3 applies to FM station applications,
Federal Communications Commission	1800E1 applies to television applications.
1919 M Street NW	
Washington, DC 20554	

To facilitate processing, the application should contain a cover letter explaining that an application filing fee is not required for the modification of license application. Commercial license applications to cover a construction permit, however, must continue to submit the application and appropriate filing fee to Mellon Bank.

⁵¹ Unusual terrain has included very flat terrain, or terrain which slopes downward over a long distance between the transmitter site to the community of license or main studio location.

69. *Discussion.* For clarity, we will here state our policy on supplemental showings. First and foremost, we want to emphasize that supplemental showings have not been accepted, nor will be accepted, for the purpose of determining interference or prohibited contour overlap between FM broadcast stations. Nor have supplemental showings been approved to establish city coverage from an FM allotment reference site located beyond the 70 dBu contour, as predicted by the standard contour prediction method in 47 C.F.R. Section 73.313.⁵² To employ supplemental showings for FM stations in this manner would represent a fundamental change as to how contour protection applications are processed, and would require a separate rulemaking proceeding to specify standards, methods and assumptions, and possibly revised definitions for protected service areas and interference (*e.g.*, as is ongoing for television in MM Docket 87-268 (see Footnote 54)). This is far beyond the scope of this rulemaking proceeding, and will not be considered herein.

70. However, as indicated above, where the terrain departs widely from the average elevation of the 3 to 16 km section along the pertinent radial, the staff has accepted supplemental showings to demonstrate compliance with the main studio rule or to demonstrate coverage of the principal community by the principal community contour, as required by the rules. 47 C.F.R. Section 73.313(e) permits the use of supplemental showings for demonstrating a station's *coverage*. Typically, such showings include

(1) an explanation of why use of a supplemental showing is warranted (*e.g.*, very flat, very rough, or anomalous terrain, and a showing of how the terrain departs widely from the average terrain assumed for the F(50,50) propagation curves in 47 C.F.R. Section 73.333 for FM stations (*see* 47 C.F.R. Section 73.313(e) for FM or 47 C.F.R. Section 73.699 for TV stations (*see* 47 C.F.R. Section 73.684(f) for TV));

(2) a showing that the distance to the 70 dBu contour as predicted by the supplemental method is at least 10% larger than the distance to the 70 dBu contour of the standard contour prediction method (47 C.F.R. Section 73.313(c) and (d) for FM stations or 47 C.F.R. Sections 73.684(c), (d), and (g) for TV stations);⁵³

⁵² The staff examined past allotment rulemaking proceedings in which the use of supplemental showings was considered in a rulemaking proceeding, but was unable to find any proceeding in which a supplemental showing was accepted and an allotment created which located the 70 dBu contour beyond the location predicted by the standard contour prediction method. Thus no precedent exists for such usage. Because FM commercial one-step construction permit applications to upgrade or change channel use the same procedures as allotment rulemakings with respect to the allotment reference coordinates (*see FM Channel and Class Modifications by Application*, 8 FCC Rcd 4735, 58 Fed. Reg. 38534 (1993)), no application has been granted where the applicant sought to employ a supplemental showing for the allotment reference coordinates.

⁵³ Because supplemental showings are both complex and unique to each case, staff analyses require extensive engineering review by propagation experts which places a substantial demand on our finite resources. Also, minor differences between case - specific supplemental showings and the standard contour prediction method are expected due to the statistical nature of the propagation curves in the rules, which underlie the standard contour prediction method. Therefore, in order to maintain a balance between the desires of licensees and permittees to show compliance with the main studio or city coverage rules for FM stations in instances involving unusual terrain characteristics which depart widely from the 3 to 16 km segment, and the need for administrative efficiency, supplemental showings have been, and will continue to be, considered only where the applicant shows that the location of the FM contour as predicted by the supplemental method is at least 10% greater than the same contour as predicted by the standard contour prediction method. A difference of less than 10% indicates that terrain

- (3) coordinates of the proposed main studio location for showings of compliance with 47 C.F.R. Section 73.1125;
- (4) a map showing the relative locations of the main studio location, or legal boundaries of the community of license, and the principal community contours as predicted by the standard and supplemental contour prediction methods;
- (5) a list of assumptions and an explanation of the method used in generating the supplemental analysis; and
- (6) sample calculations using the supplemental procedure.

71. Supplemental analyses are inherently more complex than the standard contour prediction method and the underlying assumptions are often open to varying interpretations. Thus, these showings are not routine by nature, are often controversial, and the outcome is not always as the applicant would wish. This uncertainty is inappropriate in a license application, wherein the staff is simply confirming that the facility was built properly. Nor do we wish to promote the construction of facilities which later cannot be licensed. Therefore, we will not accept supplemental showings for FM stations filed in conjunction with a license application. Applicants with supplemental showings will be required to submit them for consideration in a construction permit application, prior to any construction, so that the staff may properly evaluate all pertinent factors.⁵⁴ Applicants filing supplemental showings should also be aware that, due to the additional processing required on the supplemental showing, the processing time will be greater than that of a routine application.

72. Because the exhibits provided with supplemental showings may vary from method to method, we will not set standards for such showings beyond the guidelines given here. We also clarify that an applicant is not required to provide a supplemental analysis if the contour as predicted by the standard contour prediction method covers the community of license and the main studio location.

considerations do not have a significant effect on the location of the contour.

⁵⁴ However, where a licensee or permittee is filing a supplemental showing solely to obtain confirmation that a particular main studio location complies with 47 C.F.R. Section 73.1125, prior to moving to that location, it may do so in a letter to the Audio Services Division for FM stations or the Video Services Division for TV stations, with the appropriate exhibits attached. These will be reviewed concurrently with other work received at the same time. We will not expedite the processing of requests of this nature before other processing work filed on the same date.

No filing fee is required for a supplemental showing filed for this purpose, which should be filed with the Office of the Secretary at the Commission, not Mellon Bank, at the location specified in Footnote 50. Applicants seeking to use this procedure should obtain the Commission's concurrence BEFORE constructing a studio at the specified location, since it may be very costly to move the studio to another location if the Commission's results do not agree with the applicant's supplemental analysis.

73. **Transmitter Operating Constants - Comments.** Osenkowsky questions the need to retain transmitter operating constants (plate current, plate voltage, and efficiency factor F) on a license application. He states that type accepted transmitters are no longer required to provide such metering. Osenkowsky concludes that the manner in which a station generates the ERP should be up to the station, and the Commission should not require transmitter operating constants, transmitter operating power, or the number of antenna bays. He would, however, require that an analysis of how the ERP was achieved be maintained in the station's file.

74. *Discussion.* We do not agree with Osenkowsky that this information is unnecessary to the Commission. The number of antenna bays and antenna type, in conjunction with the transmission line loss and other system loss, are used to determine what transmitter output power is necessary to achieve the authorized ERP. The transmitter operating constants provide a means of verifying that the proper transmitter power output (and thus ERP) is being achieved, independent of the in-line power meter. These figures are essential to determine whether the station is operating properly, and are used by members of the public as well as the Compliance and Information Bureau for this purpose. Therefore, in the absence of any other comments on this subject, we do not believe it would be in the public interest to eliminate this information from the license application at this time.

75. **50% Change in Area Constitutes A Major Change for FM Noncommercial Educational Stations - Comments.** KSBJ Educational Broadcasting Foundation ("KSBJ") has proposed that we examine whether a revision to 47 C.F.R. Section 73.3573(a) is warranted regarding the major change application definition for existing noncommercial educational FM stations. Presently, any technical change which would result in a change of more than 50% in the 1 mV/m (60 dBu) service area of a noncommercial educational FM station is defined as a major change, necessitating the release of a public notice establishing a cut off date by which competing applications and petitions to deny must be filed. KSBJ asks that we consider relaxing this requirement, so as to permit more FM noncommercial educational applications to be processed as minor change applications.

76. *Discussion.* A relaxation of the rule would require a separate rulemaking proceeding to determine the impact on notice requirements to potential competing applicants of the filing of such applications, as well as an inquiry as to what criteria would be appropriate before the major change processing rules would apply. Therefore, we find that consideration of this subject falls outside the scope of this rulemaking, which is primarily aimed at streamlining existing procedures and conforming rules and policies.

77. **Proposed Revisions to the Wording of 47 C.F.R. Sections 73.316(c) for FM Stations and 73.685(f) for Television Stations - Comments.** GBI has proposed that the wording of these two sections be revised to eliminate what it considers unnecessary information required by the Commission for FM and TV directional antennas.

78. Considering first the requested changes to the FM rule, GBI requests that the Commission delete the reference in 47 C.F.R. Section 73.316(c)(1) that the manufacturer and model number are to be submitted with an application proposing to use a directional antenna. GBI contends that in many cases where a construction permit application is being submitted, the broadcaster may not know what antenna manufacturer or antenna type will ultimately be used. Thus, GBI believes that the requirement is unnecessary. GBI also proposes that 47 C.F.R. Section 73.316(c)(4) be revised to eliminate the required

submission of a vertical plane pattern for directional antennas without beam tilt or null fill. Similarly, GBI proposes a revision to the television directional antenna rule 47 C.F.R. Section 73.685(f) to require a vertical pattern only in the case where the antenna also employs null fill or beam tilt, in addition to being directional in the horizontal plane.

79. *Discussion.* We have reviewed the suggested changes, but find that no real gain would be accomplished. Presently, we do not require that the antenna manufacturer or antenna type number be supplied with a construction permit application, recognizing that the licensee or permittee may change manufacturers or antenna types once the permittee actually commences construction. We do, however, require antenna manufacturer and antenna type information at the license application stage. Therefore, changing 47 C.F.R. Section 73.316(c)(1) would have no impact on processing. With respect to eliminating the requirement for vertical plane patterns for FM and TV applications, here too, we do not routinely ask for this information during construction permit application processing. However, because the vertical patterns may change from the corresponding nondirectional antenna due to the elements or phasing used to make the antenna directional, we believe they should be supplied with the license application. Therefore, no changes will be made to these rule sections at this time.

80. **Correction of Station Coordinates on a Modification of License Application (AM, FM, and TV) - Comments.** GBI suggests that we permit broadcast stations to correct station coordinates on a modification of license application where the correction would be less than 3 seconds latitude and 3 seconds longitude, provided that a revised FAA clearance is provided with the application. GBI notes that the new tower registration procedures will reveal numerous coordinate discrepancies, as tower owners redetermine the tower coordinates before registration.⁵⁵ This will require the filing of an application to correct the coordinates of the broadcast station. Mullaney agrees with GBI, as does CGC.

81. *Discussion.* This issue was recently addressed in the context of the antenna structure registration rulemaking in WT Docket 95-5. Therefore, we see no need to initiate a new rulemaking proceeding on this subject. See *Streamlining the Commission's Antenna Structure Clearance Procedure*, 11 FCC Rcd 4272 (released November 30, 1995), 61 Fed. Reg. 04359 (1996). In that recent proceeding, the Commission clarified the procedures to be used when correcting station coordinates. 11 FCC Rcd at 4286 (Paragraphs 34, 35, see also Appendix C therein). The Commission continues to require the filing of a construction permit application on FCC Form 301 for commercial stations and FCC Form 340 for noncommercial educational stations to make any coordinate or tower height corrections.⁵⁶ We also advised in WT Docket 95-5 that *no application filing fee would be required for an application which proposed to correct tower heights or coordinates as a result of a discrepancy resulting from a redetermination of values.*⁵⁷ Docket WT 95-5 also required the submission of this correcting construction permit application

⁵⁵ See *Revision of Part 17 Concerning Construction, Marking, and Lighting of Antenna Structures*, 11 FCC Rcd 4272, released November 30, 1995, 61 Fed. Reg. 04359 (1996).

⁵⁶ In addition, changes which do not alter the station coordinates by more than 1 second in latitude or longitude, or change the tower height by less than one foot, do not require notification to the Federal Aviation Administration (FAA). (However, changes which would involve a 1 second change in coordinates or 1 meter change in height must still be reported to the FCC.) Changes greater than 1 second in latitude or longitude or 1 foot in height require that a revised FAA determination be obtained prior to tower registration.

⁵⁷ Similarly, no application filing fee would be required for a license application to cover a granted no-fee

within 30 days of receipt of a copy of Form 854-R ("Application for Antenna Structure Registration") from the tower owner. As stated therein, however, we will not issue forfeitures, nor require licensees to cease operation, because of the filing of a construction permit application to correct the tower and antenna height data resulting from registration.

82. We believe that permitting applicants to specify corrected coordinates on a license application would likely result in abuse. For example, an applicant could specify fully spaced coordinates in a construction permit or license application, and later "correct" those coordinates to a short-spaced transmitter site or a site involving prohibited contour overlap. As a way to limit abuse, Mullaney suggests that we limit a license coordinate correction procedure to tower structures authorized after July 1996. However, we do not keep close track of when towers were authorized, nor would this procedure prevent future misuse of this procedure by an applicant correcting coordinates at some future date. Moreover, this would merely replace the two step construction permit / license application process presently in use with a two step approach in which the Commission would have to decide -- without complete information -- what type of application (construction permit or license application) the applicant must file for each case. Thus, the processing burden on the staff would not be diminished, while the safeguards inherent in the construction permit process against abuse would be lost. Consequently, the suggestions that we permit coordinate corrections on a license application will not be adopted.

83. **Suggestion for a review of effects of the new rules adopted herein after one year and after two years** - *Comments*. NAB has asked that the Commission formally review the impact of these new rules one and two years after they become effective, to determine whether these rules have resulted in the creation of new interference or other adverse consequences.

84. *Discussion*. We do not believe that a formal review at a preset interval is required for the new rules and procedures we are adopting today. These rules and procedures were chosen for modification primarily because interference and other adverse consequences were unlikely. However, should circumstances develop which warrant additional review of these matters, we will do so at that time.

85. **Licensee notification and opportunity for comment is requested for applications filed under the new rules adopted herein** - *Comments*. NAB suggests that the Commission require that parties filing applications under the new rules adopted herein be required to provide "notice" to all potentially affected broadcasters. If no comments in opposition are received, NAB would then permit the changes to be made and the license application filed. CGC agrees that notice to potentially affected applicants should be given.

construction permit which was filed to fix discrepancies resulting from antenna structure registration. To facilitate processing, the license application should contain a cover letter explaining that an application filing fee is not required. The application should be directed to the address specified in Footnote 50.

86. *Discussion.* The procedure advocated by NAB and CGC would essentially require the staff to verify that notice had been given to all parties, presumably using presently-unspecified criteria to certify that notice had been given.⁵⁸ We do not have the resources or the staff to perform this task for every application and the imposition of such a requirement would increase the processing time for any application. Nor do we believe that participation by additional parties is necessary to reach a decision on whether a one-step license application should be granted, particularly since the Commission may revoke or modify program test authority or require additional information in instances of violation. Therefore, we will not adopt any notice requirement for applications filed under the new procedures adopted in this *Order*. We will, however, assign each modification of license application a file number, enter each into our databases, and release a public notice indicating the receipt of the application, as we do now for minor change and license applications. This will provide sufficient notice of the filing of an application. Generally there will be sufficient time between the date of the public notice and the grant of the license application to permit the filing of informal objections. However, we emphasize that we will not delay the start of automatic program test authority pursuant to 47 C.F.R. Section 73.1620 for AM, FM, or TV stations merely because an informal objection or complaint has been filed.

CONCLUSION

87. We believe that the simplified, one-step filing procedures and related rule revisions adopted herein for certain minor modifications will provide stations with greater flexibility in making changes that would not be likely to have any significant impact on other stations and the public. Stations will be able to make these types of changes on a much more expeditious basis because the applications for prior authority to make those minor changes will no longer be required and the license modification applications will not be grouped together for processing with construction permit modification applications that would likely impact other stations. However, stations utilizing these streamlined procedures must assume greater responsibility for ensuring their facilities modification applications fully comply with the Commission's rules, policies, and procedures. In addition, the rule changes we propose would allow the Commission to concentrate its limited resources on the evaluation of other types of applications which have a more significant possibility of impact on other stations and the public. Additional minor amendments to some other rules which refer to the rules that are the focus of this proceeding have also been made, for consistency and to simplify the rules. These new rules are contained in Appendix E. Accordingly, to the extent provided herein, we are amending Parts 1, 73, and 74 of the Rules to permit broadcast licensees and permittees to make changes to their stations via a one-step modification of license application in lieu of a construction permit and a license application.

88. Because Forms 302-FM and 302-TV have not yet been revised to incorporate the additional information required for the new uses permitted by this *Order*, we have included Supplements to Form 302-FM and Form 302-TV in Appendices C and D, respectively, which may be used after these new rules become effective until new forms are available.

⁵⁸ For example, we would require a definition of who an "affected broadcaster" is. Procedures would also have to be established concerning what the form of the notice should be, how that information should be transmitted to us, what happens if someone is missed, etc. This would simply increase the burden on license applicants and the Commission, which is what we are trying to avoid.

ORDERING CLAUSES

89. Accordingly, IT IS ORDERED that pursuant to the authority contained in Sections 4(i), 303(r), and 307(c) of the Communications Act of 1934, as amended, 47 U.S.C. Parts 1, 73, and 74 ARE AMENDED as set forth in Appendix E below.

90. IT IS FURTHER ORDERED that the requirements and regulations established in this *Report and Order* WILL BECOME EFFECTIVE **60 days** from the date of publication in the Federal Register, or upon receipt by Congress of a report in compliance with the *Contract with America Advancement Act of 1996*, Pub. L. No. 104-121, whichever date is later. Changes to FCC Forms 302-FM and 302-TV will become effective on that date or as soon thereafter as may be approved by the Office of Management and Budget.

91. For further information contact Dale Bickel of the Audio Services Division, Mass Media Bureau at (202)-418-2720, or by e-mail at dbickel@fcc.gov.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton
Acting Secretary

Attachments

APPENDIX A

PAPERWORK REDUCTION ACT STATEMENT

This *Report and Order* contains new or modified information collections subject to the Paperwork Reduction Act of 1995 ("PRA"). It has been submitted to the Office of Management and Budget ("OMB") for review under the PRA. OMB, the general public, and other federal agencies are invited to comment on the new or modified information collections contained in this proceeding.

FINAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act, 5 U.S.C. Section 603 ("RFA"),⁵⁹ an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated in *Amendment of Parts 73 and 74 of the Commission's Rules to Permit Certain Minor Changes Without A Construction Permit*.⁶⁰ The Commission sought written public comments on the proposals in the *NPRM*, including on the IRFA. The Commission's Final Regulatory Flexibility Analysis (FRFA) in this *Report and Order* conforms to the RFA as amended.⁶¹

A. Need For and Objectives of the Proposed Rules:

The Commission's Rules currently require a construction permit for virtually all minor changes to AM, FM, and TV broadcast stations. This procedure was required by Section 319(d) of the Communications Act. In 1996, at the request of the Commission, Congress modified Section 319(d) in the Telecommunications Act of 1996 Pub. L. No. 104-104, 110 Stat. 56 (1996), to eliminate the prohibition against waiving the permit requirement for applicants wanting to make minor changes to broadcast station facilities.⁶² The Commission therefore proposed revisions to its broadcast regulations to replace, in certain instances, the two step construction permit-license process with a single step licensing procedure.

By making these changes, the present four month period presently required to process and grant a construction permit will be eliminated for those applicants choosing to use these new procedures. In addition, the present minor change application filing fee (presently \$690.00) will not be required from applicants for one-step license applications, thereby easing the financial burden for simple changes. The changes will also expedite new and improved service to the public, with minimal impact on existing stations. The specified changes may be made without prior authorization from the Commission; however, it is the licensee's or permittee's

⁵⁹ See 47 U.S.C. Section 603.

⁶⁰ *Notice of Proposed Rulemaking* in MM Docket No. 96-58, 11 FCC Rcd 8800 (1996).

⁶¹ See 5 U.S.C. Section 604. The *Regulatory Flexibility Act*, see 5 U.S.C. Section 601 *et. seq.* has been amended by the *Contract With America Advancement Act of 1996*, P.L. No. 104-104, 110 Stat. 847 (1996) ("CWAAA"). Title II of the CWAAA is the Small Business Regulatory Enforcement Act of 1996 ("SBREFA").

⁶² Section 319(d) has been modified to read in relevant part as follows: "With respect to any broadcasting station, the Commission shall not have authority to waive the requirement of a permit for construction, except that the Commission may by regulation determine that a permit shall not be required for minor changes in the facilities of authorized broadcast stations." Pub. L. 104-104, Section 403(m), 110 Stat 56 (1996).

responsibility to determine whether the particular installation complies with the Commission's rules and regulations. The circumstances in which the Commission will permit the filing of one-step licensing applications are listed in 47 C.F.R. Section 73.1690(c) (*see* Appendix E of this *Report and Order*).

B. Summary of Significant Issues Raised by the Public Comments in Response to the IFRA:

No comments were received specifically in response to the IFRA contained in the *Notice of Proposed Rulemaking*. However, commenters did address the effects of the proposed rule changes on FM and TV licensees, including small businesses. Generally, commenters favored the rule changes proposed, with minor changes, some of which have been incorporated into the rules specified in Appendix E of this *Report and Order*. See Comments at paragraphs 8, 14, 17, 23, 26, 28-29, 34, 38, 43-46, 48, 52, 55-58, 66, 68, 73, 75, 77, 80, 83 and 85 of this *Report and Order*.

C. Description and Estimate of the Number of Small Entities To Which Rules Will Apply:

1. *Definition of a "Small Business"*. The RFA generally defines "small entity" as having the same meaning as the terms "small organizations", "small businesses", and "small governmental jurisdictions", and the same meaning as the term "small business concern" under the Small Business Act, unless the Commission has developed one or more definitions that are appropriate for its activities.⁶³ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration ("SBA").⁶⁴ According to the SBA's regulations, entities engaged in radio or television broadcasting (Standard Industrial Classification ("SIC") Code 4833 for television and 4832 for radio) may have a maximum of \$5.0 million or \$10.5 million, respectively, in annual receipts in order to qualify as a small business concern.⁶⁵ 13 C.F.R. § 121.201. This standard also applies in determining whether an entity is a small business for purposes of the RFA.

Pursuant to 5 U.S.C. Section 601(3), the statutory definition of a small business applies "unless an agency after consultation with the Office of Advocacy of the SBA and after opportunity for public comment,

⁶³ *Small Business Act*, 15 U.S.C. Section 632 (1996).

⁶⁴ 5 U.S.C. Section 601(b) (incorporating by reference the definition of "small business concern" in 15 U.S.C. Section 632). Pursuant to 5 U.S.C. Section 601(b), the statutory definition of a small business applies "unless an agency after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

⁶⁵ This revenue cap appears to apply to noncommercial educational television stations, as well as to commercial television stations. *See* Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987), at 283, which describes "Television Broadcasting Stations (SIC Code 4833) as:

Establishments primarily engaged in broadcasting visual programs by television to the public, except cable and other pay television services. Included in this industry are commercial, religious, educational and other television stations. Also included here are establishments primarily engaged in television broadcasting and which produce taped television program materials.

establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."⁶⁶ While we believe that the foregoing definition of "small business" greatly overstates the number of radio and television broadcast stations that are small businesses and is not suitable for purposes of determining the impact of the new rules on small business, we did not propose an alternative definition in the IRFA. Accordingly, for purposes of this *Report and Order*, we utilize the SBA's definition in determining the number of small businesses to which the rules apply, but we reserve the right to adopt a more suitable definition of "small business" as applied to radio and television broadcast stations and to consider further the issue of the number of small entities that are radio and television broadcasters in the future. Further, in this RFA, we will identify the different classes of small radio and television stations that may be impacted by the rules adopted in this *Report and Order*.

Commercial Radio and Television Services: The proposed rules and policies adopted in this *Order* will apply to full service television broadcasting licensees, radio broadcasting licensees, potential licensees of either service and may have an effect on FM and TV translators stations as well as low power TV stations ("LPTV"). The rules will also apply to full service television stations and may have an effect on TV translator facilities and low power TV stations ("LPTV"). The SBA defines a television broadcasting station that has no more than \$10.5 million in annual receipts as a small business.⁶⁷ Television broadcasting stations consist of establishments primarily engaged in broadcasting visual programs by television to the public, except cable and other pay television services.⁶⁸ Included in this industry are commercial, religious, educational, and other

⁶⁶ While we believe that the SBA's definition of "small business" greatly overstates the number of radio and television broadcast stations that are small businesses and is not suitable for purposes of determining the impact of the proposals on small radio and television stations. However, for purposes of this *Report and Order*, we utilize the SBA's definition in determining the number of small businesses to which the proposed rules would apply, but we reserve the right to to adopt a more suitable definition of "small business" as applied to radio and television broadcast stations or other entities subject to the rules adopted in this *Report and Order* and to consider further the issue of the number of small entities that are radio and television broadcasters or other small media entities in the future. See *Report and Order* in MM Docket 93-48 (*Children's Television Programming*), 11 FCC Rcd 10660, 10737-38 (1996), citing 5 U.S.C. 601 (3). In our *Notice of Inquiry* in GN Docket No. 96-113B, *In the matter of Section 257 Proceeding to Identify and Eliminate Market Entry Barriers for Small Businesses*, 11 FCC Rcd 6280 (1996), we requested commenters to provide profile data about small telecommunications businesses in particular services, including television and radio, and the market entry barriers they encounter, and we also sought comment as to how to define small businesses for purposes of implementing Section 257 of the Telecommunications Act of 1996, which requires us to identify market entry barriers and to prescribe regulations to eliminate those barriers. Additionally, in our *Order and Notice of Proposed Rulemaking* in MM Docket 96-16, *In the Matter of Streamlining Broadcast EEO Rules and Policies, Vacating the EEO Forfeiture Policy Statement and Amending Section 1.80 of the Commission's Rules to Include EEO Forfeiture Guidelines*, 11 FCC Rcd 5154 (1996), we invited comment as to whether relief should be afforded to stations: (1) based on small staff and what size staff would be considered sufficient for relief, e.g., 10 or fewer full-time employees; (2) based on operation in a small market; or (3) based on operation in a market with a small minority work force.

⁶⁷ 13 C.F.R. § 121.201, Standard Industrial Code (SIC) 4833 (1996).

⁶⁸ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1992 CENSUS OF TRANSPORTATION, COMMUNICATIONS AND UTILITIES, ESTABLISHMENT AND FIRM SIZE, Series UC92-S-1, Appendix A-9 (1995).

television stations.⁶⁹ Also included are establishments primarily engaged in television broadcasting and which produce taped television program materials.⁷⁰ Separate establishments primarily engaged in producing taped television program materials are classified under another SIC number.⁷¹ There were 1,509 television stations operating in the nation in 1992.⁷² That number has remained fairly constant as indicated by the approximately 1,560 operating television broadcasting stations in the nation as of June, 1997.⁷³ For 1992⁷⁴ the number of television stations that produced less than \$10.0 million in revenue was 1,155 establishments.⁷⁵

Additionally, the SBA defines a radio broadcasting station that has no more than \$5 million in annual receipts as a small business.⁷⁶ A radio broadcasting station is an establishment primarily engaged in broadcasting aural programs by radio to the public.⁷⁷ Included in this industry are commercial religious,

⁶⁹ *Id.* See Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987), at 283, which describes "Television Broadcasting Stations (SIC Code 4833) as:

Establishments primarily engaged in broadcasting visual programs by television to the public, except cable and other pay television services. Included in this industry are commercial, religious, educational and other television stations. Also included here are establishments primarily engaged in television broadcasting and which produce taped television program materials.

⁷⁰ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1992 CENSUS OF TRANSPORTATION, COMMUNICATIONS AND UTILITIES, ESTABLISHMENT AND FIRM SIZE, Series UC92-S-1, Appendix A-9 (1995).

⁷¹ *Id.* SIC 7812 (Motion Picture and Video Tape Production); SIC 7922 (Theatrical Producers and Miscellaneous Theatrical Services (producers of live radio and television programs).

⁷² FCC News Release No. 31327, Jan. 13, 1993; Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, *supra* note 78, Appendix A-9.

⁷³ FCC News Release No. 75604, July 31, 1997.

⁷⁴ Census for Communications' establishments are performed every five years ending with a "2" or "7". See Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, *supra* note 78, III.

⁷⁵ The amount of \$10 million was used to estimate the number of small business establishments because the relevant Census categories stopped at \$9,999,999 and began at \$10,000,000. No category for \$10.5 million existed. Thus, the number is as accurate as it is possible to calculate with the available information.

⁷⁶ 13 C.F.R. § 121.201, SIC 4832.

⁷⁷ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, *supra* note 78, Appendix A-9.

educational, and other radio stations.⁷⁸ Radio broadcasting stations which primarily are engaged in radio broadcasting and which produce radio program materials are similarly included.⁷⁹ However, radio stations which are separate establishments and are primarily engaged in producing radio program material are classified under another SIC number.⁸⁰ The 1992 Census indicates that 96 percent (5,861 of 6,127) radio station establishments produced less than \$5 million in revenue in 1992.⁸¹ Official Commission records indicate that 11,334 individual radio stations were operating in 1992.⁸² As of June, 1997 official Commission records indicate that 12,177 radio stations were operating.⁸³

Thus, the proposed rules will affect approximately 1,560 television stations; approximately 1,201 of those stations are considered small businesses.⁸⁴ Additionally, the proposed rules will affect 12,177 radio stations, approximately 11,689 of which are small businesses.⁸⁵ These estimates may overstate the number of small entities since the revenue figures on which they are based do not include or aggregate revenues from non-television or non-radio affiliated companies. We recognize that the proposed rules may also impact minority and women owned stations, some of which may be small entities. In 1995, minorities owned and controlled 37 (3.0%) of 1,221 commercial television stations and 293 (2.9%) of the commercial radio stations in the United States.⁸⁶ According to the U.S. Bureau of the Census, in 1987 women owned and controlled 27 (1.9%) of 1,342 commercial and non-commercial television stations and 394 (3.8%) of 10,244 commercial and

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ The Census Bureau counts radio stations located at the same facility as one establishment. Therefore, each co-located AM/FM combination counts as one establishment.

⁸² FCC News Release No. 31327, Jan. 13, 1993.

⁸³ FCC News Release No. 77504, July 31, 1997.

⁸⁴ We use the 77 percent figure of TV stations operating at less than \$10 million for 1992 and apply it to the 1997 total of 1551 TV stations to arrive at 1,194 stations categorized as small businesses.

⁸⁵ We use the 96% figure of radio station establishments with less than \$5 million revenue from the Census data and apply it to the 12,135 individual station count to arrive at 11,649 individual stations as small businesses.

⁸⁶ *Minority Commercial Broadcast Ownership in the United States*, U.S. Dep't of Commerce, National Telecommunications and Information Administration, The Minority Telecommunications Development Program ("MTDP") (April 1996). MTDP considers minority ownership as ownership of more than 50% of a broadcast corporation's stock, voting control in a broadcast partnership, or ownership of a broadcasting property as an individual proprietor. *Id.* The minority groups included in this report are Black, Hispanic, Asian, and Native American.

non-commercial radio stations in the United States.⁸⁷ We recognize that the numbers of minority and women broadcast owners may have changed due to an increase in license transfers and assignments since the passage of the 1996 Act.

It should also be noted that the foregoing estimates do not distinguish between network-affiliated⁸⁸ stations and independent stations. As of April 1996, the BIA Publications, Inc. Master Access Television Analyzer Database indicates that about 73% of all commercial television stations were affiliated with the ABC, CBS, NBC, Fox, UPN, or WB networks. Moreover, 7% of those affiliates have secondary affiliations.⁸⁹

There are currently 4991 TV translators, and 2001 LPTV stations which may be affected by the new rules, if they decide to convert to digital television.⁹⁰ The FCC does not collect financial information of any broadcast facility and the Department of Commerce does not collect financial information on these broadcast facilities. We will assume for present purposes, however, that most, if not all, LPTV stations and translator stations, could be classified as small businesses, if considered by themselves. Thus, translator stations generally can be considered affiliates, as that term is defined in the SBA regulations, with full service stations. Given this situation, these stations would likely have annual revenues that exceed the SBA maximum to be designated as small businesses.

In addition to owners of operating radio and television stations, any entity who seeks or desires to obtain a television or radio broadcast license may be affected by the proposals contained in this item. The number of entities that may seek to obtain a television or radio broadcast license is unknown.

Additionally, the proposed changes to the cable/MDS cross-ownership attribution rule will apply to cable and MDS entities. The SBA has developed a definition of small entities for cable and other pay television services under Standard Industrial Classification 4841 (SIC 4841), which covers subscription television

⁸⁷ See Comments of American Women in Radio and Television, Inc. in MM Docket No. 94-149 and MM Docket No. 91-140, at 4 n.4 (filed May 17, 1995), citing 1987 Economic Censuses, *Women-Owned Business*, WB87-1, U.S. Dep't of Commerce, Bureau of the Census, August 1990 (based on 1987 Census). After the 1987 Census report, the Census Bureau did not provide data by particular communications services (four-digit Standard Industrial Classification (SIC) Code), but rather by the general two-digit SIC Code for communications (#48). Consequently, since 1987, the U.S. Census Bureau has not updated data on ownership of broadcast facilities by women, nor does the FCC collect such data. However, we sought comment on whether the Annual Ownership Report Form 323 should be amended to include information on the gender and race of broadcast license owners. *Policies and Rules Regarding Minority and Female Ownership of Mass Media Facilities, Notice of Proposed Rulemaking*, 10 FCC Rcd 2788, 2797 (1995).

⁸⁸ In this context, "affiliation" refers to any local broadcast television station that has a contractual arrangement with a programming network to carry the network's signal. This definition of affiliated station includes both stations owned and operated by a network and stations owned by other entities.

⁸⁹ Secondary affiliations are secondary to the primary affiliation of the station and generally afford the affiliate additional choice of programming.

⁹⁰ FCC News Release No. 72712, March 6, 1997, Broadcast Station Totals as of February 28, 1997.

services, which includes all such companies with annual gross revenues of \$11 million or less.⁹¹ This definition includes cable systems operators, closed circuit television services, direct broadcast satellite services, multipoint distribution systems, satellite master antenna systems and subscription television services. According to the Census Bureau, there were 1,323 such cable and other pay television services generating less than \$11 million in revenue that were in operation for at least one year at the end of 1992.⁹² This figure is overinclusive since it includes other pay television services, not only cable and MDS.

Alternative Classification of Small Stations. An alternative way to classify small radio and television stations is the number of employees. The Commission currently applies a standard based on the number of employees in administering its Equal Employment Opportunity (EEO) for broadcasting.⁹³ Thus, radio or television stations with fewer than five full-time employees are exempted from certain EEO reporting and record-keeping requirements.⁹⁴

Cable Systems. The Communications Act contains a definition of a small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."⁹⁵ The Commission has determined that there are 61,700,000 subscribers in the United States. Therefore, we found that an operator serving fewer than 617,000 subscribers is deemed a small operator, if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not

⁹¹ 13 C.F.R. §121.201.

⁹² 1992 Census, *supra*, at Firm Size 1-123. See *Memorandum Opinion and Order and Notice of Proposed Rule Making* in MM Docket No. 92-266 and CS Docket No. 96-157, 11 FCC Rcd 9517, 9531 (1996).

⁹³ The Commission's definition of a small broadcast station for purposes of applying its EEO rules was adopted prior to the requirement of approval by the SBA pursuant to Section 3(a) of the *Small Business Act*, 15 U.S.C. Section 632, as amended by Section 222 of the *Small Business Credit and Business Opportunity Enhancement Act of 1992*, Public Law 102-366, Section 222(b)(1), 106 Stat. 999 (1992), as further amended by the *Small Business Administration Reauthorization and Amendments Act of 1994*, Public Law 103-403, Section 301, 108 Stat. 4187 (1994). However, this definition was adopted after public notice and opportunity for comment. See *Report and Order* in Docket No. 18244, 23 FCC 2d 430 (1970), 35 FR 8925 (June 6, 1970).

⁹⁴ See, e.g., 47 CFR Section 73.3612 (Requirement to file annual employment reports on FCC Form 395 applies to licensees with five or more full-time employees); *First Report and Order* in Docket No. 21474 (*Amendment of Broadcast Equal Employment Opportunity Rules and FCC Form 395*), 70 FCC 2d 1466 (1979), 50 Fed. Reg. 50329 (December 10, 1985). The Commission is currently considering how to decrease the administrative burdens imposed by the EEO rule on small stations while maintaining the effectiveness of our broadcast EEO enforcement. *Order and Notice of Proposed Rule Making in MM Docket 96-16 (Streamlining Broadcast EEO Rules and Policies, Vacating the EEO Forfeiture Policy Statement and Amending Section 1.80 of the Commission's Rules to Include EEO Forfeiture Guidelines*, 11 FCC Rcd 5154 (1996), 61 Fed. Reg. 09964 (March 12, 1996). One option under consideration is whether to define a small station for purposes of affording such relief as one with ten or fewer full-time employees.

⁹⁵ 47 U.S.C. § 543(m)(2).

exceed \$250 million in the aggregate.⁹⁶ Based on available data, we find that the number of cable operators serving 617,000 subscribers or less totals 1,450.⁹⁷ Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

The Commission has developed its own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a "small cable company," is one serving fewer than 400,000 subscribers nationwide.⁹⁸ Based on our most recent information, we estimate that there were 1,439 cable operators that qualified as small cable system operators at the end of 1995.⁹⁹ Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 1,439 small entity cable system operators that may be affected by the proposal adopted in this Notice. Under the Commission's rules, a small cable system is a cable system with 15,000 or fewer subscribers owned by a cable company serving 400,000 or fewer subscribers over all of its cable systems.

MDS. The Commission redefined the definition of "small entity" for the auction of MDS as an entity that together with its affiliates has average gross annual revenues that are not more than \$40 million for the preceding three calendar years.¹⁰⁰ This definition of a small entity in the context of MDS auctions has been approved by the SBA.¹⁰¹

The Commission completed its MDS auction in March 1996 for authorizations in 493 basic trading areas (BTAs). Of 67 winning bidders, 61 qualified as small entities. Five bidders indicated that they were minority-owned and four winners indicated that they were women-owned businesses. MDS is a service heavily encumbered with approximately 1,573 previously authorized and proposed MDS facilities and information available to us indicates that no MDS facility generates revenue in excess of \$11 million annually. We conclude that for purposes of this FRFA, there are approximately 1,634 small MDS providers as defined by the

⁹⁶ 47 C.F.R. § 76.1403(b).

⁹⁷ Paul Kagan Associates, Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

⁹⁸ 47 C.F.R. § 76.901(e). The Commission developed this definition based on its determinations that a small cable system operator is one with annual revenues of \$100 million or less. *Implementation of Sections of the 1992 Cable Act: Rate Regulation, Sixth Report and Order and Eleventh Order on Reconsideration*, 10 FCC Rcd 7393 (1995).

⁹⁹ Paul Kagan Associates, Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

¹⁰⁰ 47 C.F.R. § 21.961(b)(1).

¹⁰¹ See *Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act - Competitive Bidding*, MM Docket No. 94-31 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589 (1995).

SBA and the Commission's auction rules.

Newspapers. Some of the proposals delineated above may also apply to daily newspapers that hold or seek to acquire an interest in a broadcast station that would be treated as attributable under the proposals. A newspaper is an establishment that is primarily engaged in publishing newspapers, or in publishing and printing newspapers.¹⁰² The SBA defines a newspaper that has 500 or fewer employees as a small business.¹⁰³ Based on data from the U.S. Census Bureau, there are a total of approximately 6,715 newspapers, and 6,578 of those meet the SBA's size definition.¹⁰⁴ However, we recognize that some of these newspapers may not be independently owned and operated and, therefore, would not be considered a "small business concern" under the Small Business Act.¹⁰⁵ We are unable to estimate at this time how many newspapers are affiliated with larger entities. Moreover, the proposal would apply only to daily newspapers, and we are unable to estimate how many newspapers that meet the SBA's size definition are daily newspapers. Consequently, we estimate that there are fewer than 6,578 newspapers that may be affected by the proposed rules in this *Further Notice*.

D. Description of Recordkeeping and Other Projected Compliance Requirements:

Applicants filing a one-step license application will be required to provide a reduced amount of information as compared to that currently required for a construction permit. This information may consist of a radiofrequency radiation analysis to insure public safety, directional antenna information to insure protection to other stations, etc. as set forth Appendices C and D. The information required in Appendices C and D with a one-step license application generally is the minimum necessary for the Commission to verify compliance with its rules and regulations.

It must be noted that a permittee or licensee is not required to subject itself to the new one-step license requirements if it chooses not to do so. Any permittee or licensee may, at its option, use the present two-step process of obtaining a construction permit, followed by the filing of a license application once construction is complete. However, in many instances, the new procedures will reduce the time and expense required to implement certain minor changes to broadcast stations.

Most permittees and licensees retain professional consulting engineers or legal counsel, or both in preparing construction permit applications. We do not expect this to change significantly by the adoption of the new rules and procedures. However, the time needed for the preparation of the simplified one-step applications will be reduced, translating into time and money savings for the broadcast applicant.

E. Steps Taken to Minimize Burden on Small Entities and Significant Alternatives Considered and Rejected:

¹⁰² 13 C.F.R. § 121.201 (SIC 2711).

¹⁰³ *Id.*

¹⁰⁴ U.S. Small Business Administration 1992 Economic Census Industry and Enterprise Report, Table 3, SIC Code 2711 (Bureau of the Census data adapted by the Office of Advocacy of the U.S. Small Business Administration).

¹⁰⁵ 15 U.S.C. § 632.

Pursuant to the RFA, 5 U.S.C. § 603(c), we have considered whether there is a significant economic impact on a substantial number of small entities. The action taken does not impose additional burdens on small entities. Indeed, the opposite is true. The minor change application filing fee will be eliminated for applicants which meet the criteria for eligibility for applicants which meet the criteria for eligibility in 47 CFR § 73.1690 as set forth in Appendix E. One-step license applications also require that lesser amounts of information be submitted to the Commission as compared to a construction permit application. The rule and policy changes will have a positive economic impact, as eligible entities, including small entities, will be able to increase their service or make certain modifications without prior Commission authorization and with fewer legal challenges. All entities will still be able to file informal objections against a one-step license application, just as they may do now against a construction permit application. This should address the concerns of those commenters who sought a special notice and comment period for each one-step license application.

F. Report to Congress

The Commission shall send a copy of this Final Regulatory Flexibility Analysis along with this *Report and Order* in a report to Congress pursuant to Section 251 of the Small Business Regulatory Enforcement Fairness Act of 1996, codified at 5 U.S.C. Section 801(a)(1)(A). A copy of this RFA will also be published in the *Federal Register*.

Appendix B**List of Commenters**

Initial Comments

Association of America's Public Television Stations	("APTS")
Association of Federal Communications Consulting Engineers	("AFCCE")
Communications General Corporation	("CGC")
Crawford Broadcasting Company	("Crawford")
duTreil, Lundin, and Rackley, Inc.	("DLR")
Gallagher & Associates	("Gallagher")
Graham Brock, Inc.	("GBI")
KSBJ Educational Foundation, Inc.	("KSBJ")
National Association of Broadcasters	("NAB")
Thomas Gary Osenkowsky	("Osenkowsky")
Region-20 Public Safety	("Region-20")
Sunbury Broadcasting Corporation	("Sunbury")

Reply Comments

Communications General Corporation	("CGC")
Mullaney Engineering, Inc.	("Mullaney")
Shively Labs	("Shively")

Appendix C

Supplement to FCC Form 302-FM

This supplement is intended for use with the revised procedures adopted in the Report and Order in MM Docket 96-58. You may use this supplement to determine whether the new procedures are applicable to your particular situation. This supplement and any related exhibits must be attached to the Form 302-FM license application.

This FM license application is filed to:

- cover construction permit (permit number) (the permit number starts with BPH-, BMPH-, BPED-, BMPED-)
modify license (license number) (the license number starts with BLH- , BMLH-, BLED- , BMLED)

Purpose of Application (Check applicable boxes and provide the requested information and exhibits):

1. Increase in a Commercial FM station's Effective Radiated Power (ERP). An FM commercial station (also including those noncommercial educational stations authorized to operate on Channels 221 through 300 (except Class D stations)), may increase ERP via a license application where EITHER (a), (b), or (c) BELOW ARE TRUE. [Noncommercial educational permittees or licensees operating on Channels 200 through 220, or Class D stations operating on any channel, may only increase the authorized maximum ERP after grant of a construction permit application on FCC Form 340 (but see Section 8 below).] An analysis to demonstrate compliance with the Commission's radiofrequency radiation requirements must be included with the Form 302-FM application for license to cover the increased power.

(a)(i). The commercial Class A station was authorized pursuant to MM Docket 88-375 to increase ERP in a modification of license application in one of the following Public Notices (see 47 CFR Section 73.1690(c)(5)). The ERP increase must not violate the multiple ownership provisions of 47 CFR Section 73.3555. The Form 302-FM application must include an analysis demonstrating compliance with the Commission's radiofrequency radiation requirements.

- November 3, 1989 (Reference No. 451), Page No. ***See Note
November 17, 1989 (Reference No. 640), Page No.
December 8, 1989 (Reference No. 886), Page No.
March 2, 1990 (Reference No. 2009), Page No.
February 11, 1991 (Reference No. 11615), Page No.

*** Note: Certain stations included on the November 3, 1989 Public Notice were deleted from the lists of eligible stations on the November 17, 1989 Public Notice. Applicants referring to the November 3, 1989 Public Notice should also check the November 17, 1989 Public Notice.

_____ ii) the installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.

_____ iii) The applicant must demonstrate compliance with the AM protection requirements of 47 CFR Section 73.1692 if the increase in ERP also involves replacement of an antenna on an AM antenna tower.

(b). The **commercial** FM station is fully spaced pursuant to 47 C.F.R. Section 73.207 of the Commission's rules. See 47 CFR Section 73.1690(c)(7). The ERP increase may only be implemented where ALL OF THE FOLLOWING ARE TRUE:

_____ i) A showing must be provided to demonstrate that the FM station complies with the minimum separation requirements of 47 CFR § 73.207. The FM station may not be "grandfathered" under 47 CFR Section 73.213 or authorized under the contour protection rule 47 CFR Section 73.215.

_____ ii) If located in or near a radio quiet zone, radio coordination zone, or a Commission monitoring station, written approval has been secured from that radio quiet zone, radio coordination zone, or the Commission's Compliance and Information Bureau in the case of a monitoring station, PRIOR to implementation of the ERP increase. See 47 CFR Sections 73.1030 and 0.121(c). A copy of the written approval must be attached to the Form 302-FM application.

_____ iii) The station does not require international coordination since

_____ the transmitter site is not within 320 km of the Canadian or Mexican border; or

_____ if the transmitter site is in a border zone, the station's International Class _____ is equal to or greater than the station's Domestic Class _____

_____ iv) The power increase does not require the consideration of a multiple ownership showing pursuant to 47 CFR Section 73.3555.

_____ v) The vertically polarized ERP will not exceed the horizontally polarized ERP.

_____ vi) the installed height of the antenna radiation center is not increased by more than

two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.

_____ vii) The applicant must demonstrate compliance with the AM protection

requirements of 47 CFR Section 73.1692 if the increase in ERP also involves replacement of an antenna on an AM antenna tower.

_____ viii) An analysis to demonstrate compliance with the Commission's radiofrequency radiation requirements must be included with the Form 302-FM application for license to cover the increased power.

(c). The license application is filed to increase the ERP of an auxiliary facility. Complete Section 7 below.

2. **Decrease in a commercial FM station's ERP.** An FM station may decrease ERP via a license application where ALL OF THE FOLLOWING ARE TRUE. See 47 CFR Section 73.1690(c)(8).

_____ i) An exhibit must be provided to demonstrate that the station will continue to maintain the 70 dBu contour over the community of license, as required by 47 CFR § 73.315(a). The location of the contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d). Supplemental contour prediction methods may not be used to predict the location of the 70 dBu contour in a license application.

_____ ii) An exhibit must be provided to demonstrate that the station will maintain the 70 dBu contour over the main studio location, or that the main studio is located within the community of license, as required by 47 CFR Section 73.1125. The location of the contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d). Supplemental contour prediction methods may not be used to predict the location of the 70 dBu contour in a license application.

_____ iii) The station class, as defined by 47 CFR Section 73.211, may not change from the station class authorized for the station.

_____ iv) The station's vertically polarized ERP will not exceed the horizontally polarized ERP.

_____ v) The licensee or permittee must certify that the power decrease is not requested or required to establish compliance with the multiple ownership rule, 47 CFR Section 73.3555.

_____ vi) The installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.

_____ vii) The reduction in power would not cause an authorized auxiliary facility of the station to violate 47 CFR Section 73.1675. If a violation would occur:

_____ an application must be submitted *simultaneously with the license to cover the power reduction* to bring the auxiliary facility into compliance with 47 CFR Section 73.1675; or

_____ the auxiliary license is attached for cancellation.

3. **Decrease in a noncommercial educational FM station's ERP.** A decrease in a noncommercial educational station's ERP may be applied for in a license application, provided that ALL OF THE FOLLOWING ARE TRUE. See 47 CFR Section 73.1690(c)(8).

_____ i) An exhibit must be provided to demonstrate that the station continues to provide a 60 dBu contour over at least a portion of the community of license. The location of the contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d). Supplemental contour prediction methods may not be used to predict the location of the 60 dBu contour in a license application.

_____ ii) An exhibit must be provided to demonstrate that the station will continue to provide a 70 dBu contour over the main studio location, as required by 47 CFR Section 73.1125, or that the main studio is located within the community of license (see 47 CFR Section 73.1125(a)(3)). The location of the contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d). Supplemental contour prediction methods may not be used to predict the location of the 70 dBu contour in a license application.

_____ iii) The license application may not propose to eliminate the authorized horizontally polarized ERP, if a horizontally polarized ERP is currently authorized.

_____ iv) The vertically polarized ERP may not exceed the horizontally polarized ERP, unless the noncommercial educational station is located within the separations specified in Table A of 47 CFR Section 73.525 with respect to a Channel 6 television station.

_____ v) The installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.

_____ vi) The station is not presently authorized with separate horizontal and vertical antennas mounted at different heights. Use of separate horizontal and vertical antennas requires a construction permit before implementation or changes.

_____ vii) The reduction in power would not cause an authorized auxiliary facility to violate 47 CFR Section 73.1675. If a violation would occur:

_____ an application is submitted *simultaneously with this license application to reduce ERP* to bring the auxiliary facility into compliance with 47 CFR Section 73.1675; or

_____ the auxiliary license is attached for cancellation.

4. **Replacing an FM Directional Antenna With Another Directional Antenna.**

A directional antenna may be replaced with another directional antenna, and the Commission subsequently notified of the change via a license application, provided exhibits are attached to the license application to demonstrate compliance with ALL OF THE FOLLOWING ITEMS. *See* 47 CFR Section 73.1690(c)(2).

_____ i) the installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.

_____ ii) A measured directional pattern and tabulation on the manufacturer's letterhead showing both the horizontal and vertical radiation components and demonstrating that neither of the measured components exceeds the authorized composite pattern along any azimuth.

_____ iii) If the directional antenna is used for a station authorized under Section 73.215 (commercial FM contour protection), or Section 73.509 (noncommercial educational FM), the license application must demonstrate that the RMS (root mean square) of the measured composite directional pattern is 85% or more of the RMS of the authorized composite pattern. If the measured pattern does not meet this requirement, an attachment may be provided to specify reduced relative field values along multiple azimuths for the authorized composite pattern (as authorized for the previous license) so as to bring the measured and authorized directional patterns into compliance with the 85% RMS requirement. *See* 47 CFR Section 73.316(c)(9).

_____ iv) A description from the manufacturer as to the procedures used to measure the directional antenna pattern. The antenna measurements must be performed with the antenna mounted on a tower or tower section, or through use of a scale model, equivalent to that on which the antenna will be permanently mounted, and the tower or tower section must include transmission lines, ladders, conduits, other antennas, and any other installations which may affect the measured directional pattern.

_____ v) A certification from a licensed surveyor that the antenna has been oriented to the proper azimuth must be provided.

_____ vi) A certification from a qualified engineer who oversaw installation of the directional antenna that the directional antenna was installed pursuant to the manufacturer's instructions must be provided.

_____ vii) The applicant must demonstrate compliance with the AM protection requirements of 47 CFR Section 73.1692 if the installation would occur on an AM antenna structure.

5. **Deletion of Contour Protection Status Under 47 CFR § 73.215 for a Commercial FM Station.**

See 47 CFR § 73.1690(c)(6). A permittee or licensee may apply to delete the contour protection station

designation pursuant to 47 CFR Section 73.215 where a showing is provided to demonstrate that the FM station is fully spaced in accordance with the minimum separation requirements of 47 CFR Section 73.207.

As specified in the *Report and Order* in MM Docket 96-58, this license application will be considered on a first come / first served basis with respect to any conflicting minor change or license application, and that a prior filed conflicting application, if granted, may necessitate the dismissal of the license application and the resumption of operations with the contour-protected facilities specified on the current station authorization. Deletion of the contour protection designation will only occur upon grant of the license application.

6. **Change Licensing Status from Commercial FM to Noncommercial Educational FM, or vice versa.** See 47 CFR Section 73.1690(c)(9). A permittee or licensee proposing to change from commercial to noncommercial educational status *must attach completed Sections II and IV of FCC Form 340 to the license application.* Conversely, a permittee or licensee on Channels 221 to 300 proposing to change from noncommercial educational to commercial may do so in a license application without additional exhibits, provided that the channel is not specially reserved for noncommercial educational use in the Table of Allotments (47 CFR Section 73.202(b)). In either case, the change will become effective upon grant of the license application.

7. **Formerly Licensed FM Main Facilities as Auxiliary Facilities, or Change in ERP of an Authorized FM Auxiliary Facility.** See 47 CFR Section 73.1675. The following information must be provided to obtain authorization to use a formerly licensed main facility as an auxiliary facility, or to change the ERP of an authorized FM auxiliary facility:

_____ i) The License Number of the formerly authorized main facility is _____
(the License No. starts with BLH- , BLED-, BMLH-, BMLED-)

_____ ii) An exhibit must be provided to demonstrate that the location of the auxiliary facility's 1 mV/m (60 dBu) contour lies within the licensed main facility's 1 mV/m (60 dBu) contour. The analysis should use a sufficient number of radials to accurately locate both the main and auxiliary contours. The location of the 1 mV/m (60 dBu) contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d).

_____ iii) The installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.

_____ iv) If the application proposes to increase the ERP of the auxiliary facility, the application must provide an analysis to demonstrate compliance with the Commission's radiofrequency radiation requirements.

_____ v) If the auxiliary facility requires the installation of a new antenna on an AM antenna tower, the license application must demonstrate compliance with 47 CFR Section 73.1692.

8. **Change in the Vertically Polarized ERP for FM Commercial Stations and Certain Noncommercial Educational FM Stations.** See 47 CFR Section 73.1690(c)(4). Those FM stations for

which ALL OF THE FOLLOWING APPLY may increase or decrease the vertically polarized ERP in a modification of license application:

_____ i) If the station is a noncommercial educational FM station and the distance from the FM station to any Channel 6 television station exceeds the minimum distance separation specified in Table A of 47 CFR Section 73.525, an increase or decrease in the vertically polarized ERP may be made, not to exceed the authorized horizontally polarized ERP. [If the station is authorized for vertically polarized only operation, a construction permit is required before making the change.]

_____ ii) If the noncommercial educational station is *within* the minimum separations specified in Table A with respect to a Channel 6 television station, the station may file a license application procedure to reduce (but not increase) the vertical ERP from the authorized value, and may also decrease (but not increase) the horizontal ERP, provided that any presently authorized horizontal ERP is not eliminated entirely. An exhibit must be provided to demonstrate that the 60 dBu contour will continue to cover at least a portion of the community of license. The location of the contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d). Supplemental contour prediction methods may not be used to predict the location of the 70 dBu contour in a license application.

_____ iii) If the application proposes to increase the vertically polarized ERP of the presently authorized facility, the application must provide an analysis to demonstrate compliance with the Commission's radiofrequency radiation requirements.

_____ iv) the installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.

_____ v) If the new antenna is mounted on an AM antenna tower, the license application must demonstrate compliance with 47 CFR Section 73.1692.

Certifications for Supplement to FCC Form 302-FM

In addition to the certifications in Section I, FCC Form 302-FM, I certify that the statements and exhibits in this supplement to the application are true, complete, and correct to the best of my knowledge and belief and are made in good faith.

I understand that, pursuant to 47 CFR Section 73.1620, the Commission may require a reduction in the station's operating power or other changes, or the cessation of program test operations, or the filing of a construction permit application (with appropriate filing fee) for failure to comply with the terms of the construction permit or previous license, Commission rule, or to eliminate interference.

Printed Name of Preparer

Signature

Printed Name of Applicant
(see instructions to Item 6, Section I, Form 302-FM)

Signature

Title

Date

*** END TO FCC FORM 302-FM SUPPLEMENT ***

Appendix D

Supplement to FCC Form 302-TV

This supplement is intended for use with the revised procedures adopted in the *Report and Order* in MM Docket 96-58. You may use this supplement to determine whether the new procedures are applicable to your particular situation. This supplement and any related exhibits must be attached to the Form 302-TV license application.

This TV license application is filed to:

- cover construction permit (permit number) _____
(the permit number starts with BPCT- , BMPCT-, BPET-, BMPET-)
- modify license (license number) _____
(the license number starts with BLCT- , BMLCT-, BLET- , BMLET)

Purpose of Application (Check applicable boxes and provide the requested information and exhibits):

1. **Replacement of one TV Directional Antenna With Another.** See 47 CFR Section 73.1690(c)(3). Television stations may replace a directional antenna and commence program test operations without prior authority, and then file a license application on FCC Form 302-TV, PROVIDED THAT ITEMS i), ii), AND iii) iv) ALL APPLY:

_____ i) Either 1, 2 or 3 below is applicable:

_____ 1. the television station operates Channels 2 through 13 or Channels 22 through Channel 68; OR

_____ 2. the TV station operates on or between Channels 15 through 21 and is located in excess of 341 km from a cochannel land mobile operation or in excess of 225 km from a first-adjacent channel land mobile operation (*see* Part 74, Section 74.709(a) and (b) for tables of urban areas and corresponding reference coordinates of potentially affected land mobile operations). [A TV station on Channels 14 or 69, or on Channels 15 through 21 which does not meet these separations to cochannel or first adjacent channel land mobile operations, must obtain a construction permit before changing a directional antenna.]

_____ ii) the installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.

_____ iii) the license application contains all of the data required by 47 CFR Section 73.685(f).

_____ iv) If the TV directional antenna is mounted on an AM antenna tower, the license application must demonstrate compliance with 47 CFR Section 73.1692.

2. **Changes to the Vertically Polarized ERP for TV Stations.** An authorized television station may increase its vertically polarized ERP up to the authorized value for the horizontally polarized ERP, without prior authority, and commence program test operations and file a license application on FCC Form 302-TV, PROVIDED THAT ITEMS i), ii), AND iii) ALL APPLY. An analysis to demonstrate compliance with the Commission's radiofrequency radiation requirements must be included with the Form 302-TV application for license to cover the increased power.

_____ i) Either 1 or 2 below is applicable:

_____ 1. the television station operated on Channels 2 through 13 or Channels 22 through 68; OR

_____ 2. the TV station operates on or between Channels 15 through 21 and is located in excess of 341 km from a cochannel land mobile operation or in excess of 225 km from a first-adjacent channel land mobile operation (*see* Part 74, Section 74.709(a) and (b) for tables of urban areas and corresponding reference coordinates of potentially affected land mobile operations). [A TV station on Channels 14 or 69, or on Channels 15 through 21 which does not meet these separations to cochannel or first adjacent channel land mobile operations, must obtain a construction permit before changing a directional antenna.]

_____ ii) the installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.

_____ iv) If the new TV antenna is mounted on an AM antenna tower, the license application must demonstrate compliance with 47 CFR Section 73.1692.

3. **Use of Formerly Licensed Main TV Facilities as Auxiliary Facilities.** *See* 47 CFR Section 73.1675. The following information must be provided to obtain authorization to use a formerly licensed main TV facility as an auxiliary facility:

_____ i) The License No. of the formerly authorized main facility is _____ (the License No. starts with BLCT , BLET-, BMLCT-, BMLET-).

_____ ii) A showing that the location of the auxiliary facility's Grade B coverage contour lies within the licensed main facility's Grade B coverage contour. *See* 47 CFR Section 73.1675(a)(3). The location of the Grade B contours must be predicted using the standard contour prediction method in 47 CFR Section 73.684(b), (c), (d), and (g). The analysis should use a sufficient number of radials to accurately locate both the main and auxiliary contours.

_____ iii) If the application proposes to increase the ERP of the TV auxiliary facility, the

application must provide an analysis to demonstrate compliance with the Commission's radiofrequency radiation requirements.

_____ iv) the installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.

_____ v) If the TV auxiliary facility is mounted on an AM antenna tower, the license application must demonstrate compliance with 47 CFR Section 73.1692.

4. **Commercial Stations Changing to Noncommercial Educational Status, or vice versa.** See 47 CFR Section 73.1690(c)(9). The applicant proposing to change from commercial to noncommercial educational status must attach *completed Sections II and IV of FCC Form 340 to the license application*. An applicant proposing to change from noncommercial educational to commercial may do so in a license application without additional exhibits, provided that the channel is not specially reserved for noncommercial educational use in the Table of Allotments (47 CFR Section 73.606(b)). In either case, the change will become effective upon grant of the license application.

Certifications for Supplement to FCC Form 302-TV

In addition to the certifications in Section I, FCC Form 302-TV, I certify that the statements and exhibits in this supplement to the application are true, complete, and correct to the best of my knowledge and belief and are made in good faith.

I understand that, pursuant to 47 CFR Section 73.1620, the Commission may require a reduction in the station's operating power or other changes, or the cessation of program test operations, or the filing of a construction permit application (with appropriate filing fee) for failure to comply with the terms of the construction permit or previous license, Commission rule, or to eliminate interference.

Printed Name of Preparer

Signature

Printed Name of Applicant
(see instructions to Item 6, Section I, Form 302-TV)

Signature

Title

Date

*** END OF SUPPLEMENT TO FCC FORM 302-TV ***

Appendix E

NEW AND REVISED RULES

Part 1 of Title 47 of the U.S. Code of Federal Regulations is amended to read as follows:

A new Section 1.1104(1)(b)(1) is added:

§ 1.1104 (1) (b) (1) Main Studio Request.....
159 & Corres.....690.....MPT.....Federal Communications Commission, Mass Media Services, P.O.
Box 358165, Pittsburgh, PA 15251-5165

A new Section 1.1104(2)(b)(1) is added:

§ 1.1104 (2) (b) (1) Main Studio Request
159 & Corres.....690.....MPT.....Federal Communications Commission, Mass Media Services, P.O.
Box 358190, Pittsburgh, PA 15251-5190

A new Section 1.1104(3)(b)(1) is added:

§ 1.1104 (3) (b) (1) Main Studio Request.....
159 & Corres.....690.....MPT.....Federal Communications Commission, Mass Media Services, P.O.
Box 358195, Pittsburgh, PA 15251-5195

Part 73 of Title 47 of the U.S. Code of Federal Regulations is amended to read as follows:

Section 73.14 is modified by the insertion of the following definition inserted immediately after the definition of *Antenna Resistance*:

§ 73.14 *Auxiliary facility*. An auxiliary facility is an AM antenna tower(s) separate from the main facility's antenna tower(s), permanently installed at the same site or at a different location, from which an AM station may broadcast for short periods without prior Commission authorization or notice to the Commission while the main facility is not in operation (*e.g.*, where tower work necessitates turning off the main antenna or where lightning has caused damage to the main antenna or transmission system) (*See* § 73.1675).

Section 73.310(a) is modified by the insertion of the following definition inserted immediately after the definition of *Antenna Power Gain*:

§ 73.310 (a) *Auxiliary facility*. An auxiliary facility is an antenna separate from the main facility's antenna, permanently installed on the same tower or at a different location, from which a station

may broadcast for short periods without prior Commission authorization or notice to the Commission while the main facility is not in operation (*e.g.*, where tower work necessitates turning off the main antenna or where lightning has caused damage to the main antenna or transmission system) (*See* § 73.1675).

Also, Section 73.310(a) is modified by the insertion of the following definition inserted immediately after the definition of *Composite Base Band Signal*:

§ 73.310 (a) *Composite antenna pattern.* The composite antenna pattern is a relative field horizontal plane pattern for 360 degrees of azimuth, for which the value at a particular azimuth is the greater of the horizontally polarized or vertically polarized component relative field values. The composite antenna pattern is normalized to a maximum of unity (1.000) relative field.

A new Section 73.316(c)(9) is added, as follows:

§ 73.316 (c) (9) In the case of an application for license upon completion of antenna construction for a station authorized pursuant to § 73.215 or § 73.509, a showing that the root mean square (RMS) of the measured composite antenna pattern (encompassing both the horizontally and vertically polarized radiation components (in relative field)) is at least 85% of the RMS of the authorized composite directional antenna pattern (in relative field). The RMS values, for a composite antenna pattern specified in relative field values, may be determined from the following formula:

RMS = the square root of:

$$\frac{[(\text{relative field value } 1)^2 + (\text{relative field value } 2)^2 + \dots + (\text{last relative field value})^2]}{\text{number of relative field values summed}}$$

where the relative field values are taken from at least 36 evenly spaced radials for the entire 360° of azimuth. The application for license must also demonstrate that coverage of the community of license by the 70 dBu contour is maintained for stations authorized pursuant to § 73.215 on Channels 221 through 300, as required by § 73.315(a), while noncommercial educational stations operating on Channels 201 through 220 must show that the 60 dBu contour covers at least a portion of the community of license.

Section 73.316(e) is replaced with the following:

§ 73.316 (e) Where an FM licensee or permittee proposes to mount its antenna on an AM antenna tower, or locate within 3.2 km of an AM antenna tower, the FM licensee or permittee must comply with § 73.1692.

Sections 73.316 (f), (g), (h), and (i) are deleted.

Section 73.525(e)(1)(vii) is added, as follows:

§ 73.525 (e) (1) (vii) In cases where the predicted interference area to Channel 6 television from a noncommercial educational FM station will be located within the 90 dBu F(50,50) contour of the television Channel 6 station, the location of the FM interfering contour must be determined using the assumption that the Channel 6 field strength remains constant at 90 dBu everywhere within the 90 dBu TV contour. The FM to Channel 6 U/D signal strength ratio specified in § 73.599 corresponding to the Channel 6 TV field strength of 90 dBu shall be used.

Section 73.681 is modified by the insertion of the following definition inserted immediately after the definition of *Aural Transmitter*:

§ 73.681 *Auxiliary facility.* An auxiliary facility is an antenna separate from the main facility's antenna, permanently installed on the same tower or at a different location, from which a station may broadcast for short periods without prior Commission authorization or notice to the Commission while the main facility is not in operation (*e.g.*, where tower work necessitates turning off the main antenna or where lightning has caused damage to the main antenna or transmission system) (*See* § 73.1675).

Section 73.685 (h) is replaced with the following:

§ 73.685 (h) Where a TV licensee or permittee proposes to mount an antenna on an AM antenna tower, or locate within 3.2 km of an AM antenna tower, the TV licensee or permittee must comply with § 73.1692.

Section 73.1125 (b)(2) is replaced with the following:

§ 73.1125 (b) (2) Written authority to locate a main studio outside a station's principal community contour for the first time must be obtained from the Audio Services Division, Mass Media Bureau for AM and FM stations, or the Television Branch, Video Services Division, Mass Media Bureau for television stations before the studio may be moved to that location. Where the main studio is already authorized at a location outside the station's principal community contour, and the licensee or permittee desires to specify a new location also located outside the station's principal community contour, written authority must also be received from the Commission prior to the relocation of the main studio. Authority for these changes may be requested by filing a letter with an explanation of the proposed changes with the appropriate division. Licensees or permittees should be aware that the filing of a letter request for written authority to locate the main studio outside the principal community contour does not imply approval of the relocation request, because each request is addressed on a case-by-case basis. A filing fee is required for commercial AM, FM, or TV licensees or permittees filing a letter request under this section (*see* § 1.1104).

Section 73.1620 (a) (2) is replaced with the following:

§ 73.1620 (a) (2) The permittee of an FM station with a directional antenna system must file an application for license on FCC Form 302-FM requesting authority to commence program test operations at full power with the FCC in Washington, D.C. This license application must be filed at least 10 days prior to the date on which full power operations are desired to commence. The application for license must contain any exhibits called for by conditions on the construction permit. The staff will review the license application and the request for program test authority and issue a letter notifying the applicant whether full power operation has been approved. Upon filing of the license application and related exhibits, and while awaiting approval of full power operation, the FM permittee may operate the directional antenna at one half (50%) of the authorized effective radiated power. Alternatively, the permittee may continue operation with its existing licensed facilities pending the issuance of program test authority at the full effective radiated power by the staff.

A new Section 73.1620(a)(3) is added as follows:

§ 73.1620 (a) (3) FM licensees replacing a directional antenna pursuant to § 73.1690 (c)(2) without changes which require a construction permit (*see* § 73.1690(b)) may immediately commence program test operations with the new antenna at one half (50%) of the authorized ERP upon installation. If the directional antenna replacement is an EXACT duplicate of the antenna being replaced (i.e., same manufacturer, antenna model number, AND measured composite pattern), program tests may commence with the new antenna at the full authorized power upon installation. The licensee must file a modification of license application on FCC Form 302-FM within 10 days of commencing operations with the newly installed antenna, and the license application must contain all of the exhibits required by § 73.1690(c)(2). After review of the modification-of-license application to cover the antenna change, the Commission will issue a letter notifying the applicant whether program test operation at the full authorized power has been approved for the replacement directional antenna.

A new Section 73.1620(a)(4) is added as follows:

§ 73.1620 (a) (4) The permittee of an AM station with a directional antenna system must file an application for license on FCC Form 302-AM requesting program test authority with the FCC in Washington, DC at least ten (10) days prior to the date on which it desires to commence program test operations. The application must provide an AM directional antenna proof of performance, containing the exhibits required by § 73.186. After review of the application to cover the construction permit, the Commission will issue a letter notifying the applicant whether program test operations may commence. Program test operations may not commence prior to issuance of staff approval.

Section 73.1620(b) is replaced as follows:

§ 73.1620 (b) The Commission reserves the right to revoke, suspend, or modify program tests by any station without right of hearing for failure to comply adequately with all terms of the construction permit or the provisions of § 73.1690(c) for a modification of license application, or in order to resolve instances of interference. The Commission may, at its discretion, also require the filing of a construction permit application to bring the station into compliance the Commission's rules and policies.

Section 73.1675 is revised as follows:**§ 73.1675 Auxiliary Facilities**

(a) *

(b) *

(c) (1) Where an FM or TV licensee proposes to use a formerly licensed main facility as an auxiliary facility, or proposes to modify a presently authorized auxiliary facility, and no changes in the height of the antenna radiation center are required in excess of the limits in § 73.1690(c)(1), the FM or TV licensee may apply for the proposed auxiliary facility by filing a modification of license application. The modified auxiliary facility must operate on the same channel as the licensed main facility.

An exhibit must be provided with this license application to demonstrate compliance with § 73.1675(a). All FM and TV licensees may request a decrease from the authorized facility's ERP in the license application. An FM or TV licensee may also increase the ERP of the auxiliary facility in a license modification application, provided the application contains an analysis demonstrating compliance with the Commission's radiofrequency radiation guidelines, and an analysis showing that the auxiliary facility will comply with § 73.1675(a). Auxiliary facilities mounted on an AM antenna tower must also demonstrate compliance with § 73.1692 in the license application.

(c) (2) Where an AM licensee proposes to use a former licensed main facility as an auxiliary facility with an ERP less than or equal to the ERP specified on the former main license, the AM station may apply to license the proposed auxiliary facility by filing a modification of license application on Form 302-AM. The proposed auxiliary facilities must have been previously licensed on the same frequency as the present main facility. The license application must contain an exhibit to demonstrate compliance with § 73.1675(a).

Section 73.1690 is revised as follows:

- (a) *
- (b) The following changes may be made only after the grant of a construction permit application on FCC Form 301 for commercial stations or Form 340 for noncommercial educational stations:
- (1) Any construction of a new tower structure for broadcast purposes, except for replacement of an existing tower with a new tower of identical height and geographic coordinates.
 - (2) Any change in station geographic coordinates, including coordinate corrections. FM and TV directional stations must also file a construction permit application for any move of the antenna to another tower structure located at the same coordinates.
 - (3) Any change which would require an increase along any azimuth in the composite directional antenna pattern of an FM station from the composite directional antenna pattern authorized (*see* § 73.316), or any increase from the authorized directional antenna pattern for a TV station (*see* § 73.685).
 - (4) Any change in the directional radiation characteristics of an AM directional antenna system. *See* § 73.45 and § 73.150.
 - (5) Any decrease in the authorized power of an AM station or the ERP of a TV station, or any decrease or increase in the ERP of an FM commercial station, which is intended for compliance with the multiple ownership rules in § 73.3555.
 - (6) For FM noncommercial educational stations, any of the following:
 - (i) Any increase in the authorized maximum ERP, whether horizontally or vertically polarized, for a noncommercial educational FM station operating on Channels 201 through 220, or a Class D FM station operating on Channel 200..
 - (ii) For those FM noncommercial educational stations on Channels 201 to 220, or a Class D FM station operating on Channel 200, which are within the separation distances specified in Table A of § 73.525 with respect to a Channel 6 television station, any increase in the horizontally or vertically polarized ERP from the presently authorized ERP.
 - (iii) For those FM noncommercial educational stations on Channels 201 through 220 which are located within the separation distances in § 73.525 with respect to a Channel 6 television station, or a Class D FM station operating on Channel 200, any decrease in the presently authorized horizontal effective radiated power which would eliminate the horizontal ERP to result in use of vertical ERP only.

(iv) For those FM noncommercial educational stations which employ separate antennas for the horizontal ERP and the vertical ERP, mounted at different heights, the station may not increase or decrease either the horizontal ERP or the vertical ERP without a construction permit.

(7) Any increase in the authorized ERP of a television station, FM commercial station, or noncommercial educational FM station, except as provided for in §§ 73.1690(c)(4), (c)(5), or (c)(7), or § 73.1675(c)(1) in the case of auxiliary facilities.

(8) A commercial TV or noncommercial educational TV station operating on Channels 14 or Channel 69 may increase its horizontally or vertically polarized ERP only after the grant of a construction permit. A television station on Channels 15 through 21 within 341 km of a cochannel land mobile operation, or 225 km of a first-adjacent channel land mobile operation, must also obtain a construction permit before increasing the horizontally or vertically polarized ERP (*see* Part 74, § 74.709(a) and (b) for tables of urban areas and corresponding reference coordinates of potentially affected land mobile operations).

(c) The following FM and TV station modifications may be made without prior authorization from the Commission. A modification of license application must be submitted to the Commission within 10 days of commencing program test operations pursuant to § 73.1620. With the exception of applications filed solely pursuant to Sections (c)(6), (c)(9), or (c)(10), the modification of license application must contain an exhibit demonstrating compliance with the Commission's radiofrequency radiation guidelines. In addition, except for applications solely filed pursuant to Sections (c)(6) or (c)(9), where the installation is located within 3.2 km of an AM tower or is located on an AM tower, an exhibit demonstrating compliance with § 73.1692 is also required.

(1) Replacement of an omnidirectional antenna with one of the same or different number of antenna bays, provided that the height of the antenna radiation center is not more than 2 meters above or 4 meters below the authorized values. Any concurrent change in ERP must comply with § 73.1675(c)(1), 73.1690(4), (c)(5), or (c)(7). Program test operations at the full authorized ERP may commence immediately upon installation pursuant to § 73.1620(a)(1).

(2) Replacement of a directional FM antenna, where the measured composite directional antenna pattern does not exceed the licensed composite directional pattern at any azimuth, where no change in effective radiated power will result, and where compliance with the principal coverage requirements of § 73.315(a) will be maintained by the measured directional pattern. The antenna must be mounted not more than 2 meters above or 4 meters below the authorized values. The modification of license application on Form 302-FM to cover the antenna replacement must contain all of the data in the following sections (i) through (v). Program test operations at one half (50%) power may commence immediately upon installation pursuant to § 73.1620(a)(3). However, if the replacement directional antenna is an exact replacement (i.e., no change in manufacturer, antenna model number, AND measured composite antenna pattern), program test operations may commence immediately upon installation at the full authorized power.

(i) A measured directional antenna pattern and tabulation on the antenna

manufacturer's letterhead showing both the horizontally and vertically polarized radiation components and demonstrating that neither of the components exceeds the authorized composite antenna pattern along any azimuth.

(ii) Contour protection stations authorized pursuant to § 73.215 or § 73.509 must attach a showing that the RMS (root mean square) of the composite measured directional antenna pattern is 85% or more of the RMS of the authorized composite antenna pattern. *See* § 73.316(c)(9). If this requirement cannot be met, the licensee may include new relative field values with the license application to reduce the authorized composite antenna pattern so as to bring the measured composite antenna pattern into compliance with the 85% requirement.

(iii) A description from the manufacturer as to the procedures used to measure the directional antenna pattern. The antenna measurements must be performed with the antenna mounted on a tower, tower section, or scale model equivalent to that on which the antenna will be permanently mounted, and the tower or tower section must include transmission lines, ladders, conduits, other antennas, and any other installations which may affect the measured directional pattern.

(iv) A certification from a licensed surveyor that the antenna has been oriented to the proper azimuth.

(v) A certification from a qualified engineer who oversaw installation of the directional antenna that the antenna was installed pursuant to the manufacturer's instructions.

(3) A directional TV station on Channels 2 through 13 or 22 through 68, or a directional TV station on Channels 15 through 21 which is in excess of 341 km (212 miles) from a cochannel land mobile operation or in excess of 225 km (140 miles) from a first-adjacent channel land mobile operation (*see* Part 74, § 74.709(a) and (b) for tables of urban areas and reference coordinates of potentially affected land mobile operations), may replace a directional TV antenna by a license modification application, if the proposed horizontal theoretical directional antenna pattern does not exceed the licensed horizontal directional antenna pattern at any azimuth and where no change in effective radiated power will result. The modification of license application on Form 302-TV must contain all of the data set forth in § 73.685(f).

(4) Commercial and noncommercial educational FM stations operating on Channels 221 through 300 (except Class D), NTSC TV stations operating on Channels 2 through 13 and 22 through 68, and TV stations operating on Channels 15 through 21 that are in excess of 341 km (212 miles) from a cochannel land mobile operation or in excess of 225 km (140 miles) from a first-adjacent channel land mobile operation [*see* Part 74, § 74.709(a) and (b) for tables of urban areas and reference coordinates of potentially affected land mobile operations], which operate omnidirectionally, may increase the vertically polarized effective radiated power up to the authorized horizontally polarized effective radiated power in a license modification application. Noncommercial educational FM licensees and permittees on Channels 201 through 220, that do not use separate antennas mounted at different heights for the horizontally polarized ERP and the vertically polarized ERP, and are located in excess of the separations from a Channel 6 television station listed in Table A of § 73.525(a)(1), may also increase the vertical ERP, up to

(but not exceeding) the authorized horizontally polarized ERP via a license modification application. Program test operations may commence at full power pursuant to § 73.1620(a)(1).

(5) Those Class A FM commercial stations which were permitted to increase ERP pursuant to MM Docket No. 88-375 by a modification of license application remain eligible to do so, provided that the station meets the requirements of § 73.1690 (c)(1) and is listed on one of the Public Notices as authorized to increase ERP, or by a letter from the Commission's staff authorizing the change. These Public Notices were released on November 3, 1989; November 17, 1989; December 8, 1989; March 2, 1990; and February 11, 1991. The increased ERP must comply with the multiple ownership requirements of § 73.3555. Program test operations may commence at full power pursuant to § 73.1620(a)(1).

(6) FM contour protection stations authorized pursuant to § 73.215 which have become fully spaced under § 73.207 may file a modification of license application to delete the § 73.215 contour protection designation with an exhibit to demonstrate that the station is fully spaced in accordance with § 73.207. The contour protection designation will be removed upon grant of the license application. Applications filed under this rule section will be processed on a first come / first served basis with respect to conflicting FM commercial minor change applications and modification of license applications (including those filed pursuant to § 73.1690 (b) and (c)(6) and (c)(7)).

(7) FM omnidirectional commercial stations, and omnidirectional noncommercial educational FM stations operating on Channels 221 through 300 (except Class D), which are not designated as contour protection stations pursuant to 47 C.F.R. § 73.215 and which meet the spacing requirements of § 73.207, may file a license modification application to increase ERP to the maximum permitted for the station class, provided that any change in the height of the antenna radiation center remains in accordance with § 73.1690(c)(1). Program test operations may commence at full power pursuant to § 73.1620(a)(1). All of the following conditions also must be met before a station may apply pursuant to this section:

(i) The station may not be a "grandfathered" short-spaced station authorized pursuant to § 73.213 or short-spaced by a granted waiver of § 73.207;

(ii) If the station is located in or near a radio quiet zone, radio coordination zone, or a Commission monitoring station (*see* § 73.1030 and § 0.121(c)), the licensee or permittee must have secured written concurrence from the affected radio quiet zone, radio coordination zone, or the Commission's Compliance and Information Bureau in the case of a monitoring station, to increase effective radiated power PRIOR to implementation. A copy of that concurrence must be submitted with the license application to document that concurrence has been received;

(iii) The station does not require international coordination as the station does not lie within the border zones, or clearance has been obtained from Canada or Mexico for the higher power operation within the station's specified domestic class and the station complies with § 73.207(b)(2) and (3) with respect to foreign allotments and allocations;

(iv) The increased ERP will not cause the station to violate the multiple ownership requirements of § 73.3555.

(8) FM commercial stations and FM noncommercial educational stations may decrease ERP on a modification of license application provided that exhibits are included to demonstrate that all six of the following requirements are met:

(i) Commercial FM stations must continue to provide a 70 dBu principal community contour over the community of license, as required by § 73.315(a). Noncommercial educational FM stations must continue to provide a 60 dBu contour over at least a portion of the community of license. The 60 and 70 dBu contours must be predicted by use of the standard contour prediction method in § 73.313(b), (c), and (d).

(ii) For both commercial FM and noncommercial educational FM stations, the location of the main studio remains within the 70 dBu principal community contour, as required by § 73.1125, or otherwise complies with that rule. The 70 dBu contour must be predicted by use of the standard contour prediction method in § 73.313(b), (c), and (d).

(iii) For commercial FM stations only, there is no change in the authorized station class as defined in § 73.211.

(iv) For commercial FM stations only, the power decrease is not necessary to achieve compliance with the multiple ownership rule, § 73.3555.

(v) Commercial FM stations, noncommercial educational FM stations on Channels 221 through 300, and noncommercial educational FM stations on Channels 200 through 220 which are located in excess of the distances in Table A of § 73.525 with respect to a Channel 6 TV station, may not use this rule to decrease the horizontally polarized ERP below the value of the vertically polarized ERP.

(vi) Noncommercial educational FM stations on Channels 201 through 220 which are within the Table A distance separations of § 73.525, or Class D stations on Channel 200, may not use the license modification process to eliminate an authorized horizontally polarized component in favor of vertically polarized-only operation. In addition, noncommercial educational stations operating on Channels 201 through 220, or Class D stations on Channel 200, which employ separate horizontally and vertically polarized antennas mounted at different heights, may not use the license modification process to increase or decrease either the horizontal ERP or vertical ERP without a construction permit.

(9) The licensee of an AM, FM, or TV commercial station may propose to change from commercial to noncommercial educational on a modification of license application, provided that the application contains completed Sections II and IV of FCC Form 340. In addition, a noncommercial educational AM licensee, a TV licensee on a channel not reserved for noncommercial educational use, or an

FM licensee on Channels 221 to 300 (except Class D FM) on a channel not reserved for noncommercial educational use, may apply to change from educational to commercial via a modification of license application, and no exhibits are required with the application. The change will become effective upon grant of the license application.

(10) Replacement of a transmission line with one of a different type or length which changes the transmitter operating power (TPO) from the authorized value, but not the ERP, must be reported in a license modification application to the Commission.

(d) *

(e) *

A new Section 73.1692 is added, as follows:

§ 73.1692 Broadcast Station Construction Near or Installation On an AM Broadcast Tower. Where a broadcast licensee or permittee proposes to mount a broadcast antenna on an AM station tower, or where construction is proposed within 0.8 km of an AM nondirectional tower or within 3.2 km of an AM directional station, the broadcast licensee or permittee is responsible for ensuring that the construction does not adversely affect the AM station, as follows:

(a) *Installations on an AM Nondirectional Tower.* During installation of the broadcast antenna and related equipment, the AM station shall determine operating power by the indirect method (*see* § 73.51). Upon the completion of the installation, antenna impedance measurements on the AM antenna shall be made, and, prior to or simultaneously with the filing of the license application covering the broadcast station installation, an application on FCC Form 302-AM (including a tower sketch of the installation) shall be filed with the Commission for the AM station to return to direct power measurement.

(b) *Installations on an AM Directional Array.* Prior to commencing construction, the broadcast permittee or licensee shall notify the AM station so that, if necessary, the AM station may determine operating power by the indirect method (*see* § 73.51) and request special temporary authority pursuant to § 73.1635 to operate with parameters at variance in order to maintain monitoring point field strengths within authorized limits. Both prior to the commencement of construction and upon completion of construction, a partial proof of performance (as defined by § 73.154) shall be conducted to establish that the AM array has not been adversely affected. Prior to or simultaneously with filing of the license application to cover the broadcast station construction, the results of the partial proof of performance shall be filed with the Commission on Form 302-AM.

(c) *Tower Erections or Modifications Within 0.8 km of an AM Nondirectional Tower.* Prior to commencing the construction of tower modifications, or the erection of a new tower, within 0.8 km of an AM nondirectional tower, the broadcast permittee or licensee is required to notify the AM station so that the AM station may commence determining operating power by the indirect method (*see*

§ 73.3537 See § 73.1675, "Auxiliary Facility".

Section 73.3538 is revised to read as follows:

§ 73.3538 Where prior authority is required from the FCC to make changes in an existing station, the following procedures shall be used to request that authority:

(a) An application for construction permit using the forms listed in § 73.3533 must be filed for authority to:

- (1) Make any of the changes listed in § 73.1690(b).
- (2) Change the hours of operation of an AM station, where the hours of operation are specified on the license or permit.
- (3) Install a transmitter which has not been approved (type accepted) by the FCC for use by licensed broadcast stations.

Sections 73.3538 (a) (5), (6) and (7) are deleted in their entirety.

A new Section 73.3538(b)(3) is added as follows:

§ 73.3538 (b) (3) Relocation of a main studio outside the principal community contour may require the filing and approval of a letter request for authority to make this change prior to implementation.
See § 73.1125.

Section 73.3544(a) is revised as follows:

§ 73.3544 (a) The changes specified in § 73.1690(c) may be made by the filing of a license application using the forms listed in § 73.3536(b)(1).

Part 74 of Title 47 of the U.S. Code of Federal Regulations is amended to read as follows:

Section 74.780 is modified under the reference to Part 73, to insert a reference to the proposed rule section 73.1692, as follows:

§ 74.780 Section 73.1692 --- Construction Near or Installation On an AM Broadcast Tower

Section 74.1235(h) is modified to read as follows:

§ 74.1235 (h) All applications must comply with § 73.316, paragraphs (d) and (e).

A new Section 74.1237(e) is added as follows:

§ 74.1237 (e) A translator or booster station to be located on an AM antenna tower or located within 3.2 km of an AM antenna tower must comply with § 73.1692.

** End Appendix E **