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

MM Docket No. 96-62

In the Matter of

Amendment of Parts 73 of
the Commission's Rules to More
Effectively Resolve Broadcast
Blanketing Interference, Including
Interference to Consumer Electronics and
Other Communications Devices

NOTICE OF PROPOSED RULE MAKING

Adopted: March 21, 1996; Released: April 26, 1996

Comment Date: June 25, 1996
Reply Comment Date: July 25, 1996

By the Commission:

INTRODUCTION

1. The Commission herein proposes, on its own motion,[1] a number of rule amendments designed to facilitate the resolution of broadcast blanketing interference problems. Specifically, we propose consolidation of Sections 73.88, 73.318, and 73.685(d) to combine the blanketing interference rules into a new single rule Section 73.1630, for AM, FM, and TV services.[2] This rulemaking proceeding proposes to amend signal contour determinations in establishing AM radio and TV broadcast blanketing areas,[3] provide detailed clarification of licensee's responsibility in resolving blanketing interference, and provide a list of protected and non-protected devices. In addition, comment and information is sought on certain issues related to the practical implementation of these rules.

BACKGROUND

2. As new transmitter facilities are built in populated areas and as homes and businesses move closer to transmitter sites, blanketing interference has become an increasing nuisance for consumers of various electronic devices and a vexing challenge for broadcast licensees. For instance, a broadcast receiver is considered to be blanketed whenever a station's signal strength or signal power density is of such magnitude that it causes the receiver near the transmitting antenna to be partially or completely blocked from receiving other broadcast stations. In many cases, the signal from a nearby transmitter can be so strong that it not only desensitizes[4] radiofrequency receivers, but also interferes with and adversely affects other electronic equipment operating on a wide band of frequencies. The high signal level may also produce intermodulation products which may interfere with the reception of other stations at the receiver and obstruct or interrupt the intended operation of other electronic devices. However, the blanketing effect on receivers and various electronic components can vary from slight to severe.

3. Receivers are designed to operate in an environment consisting of desired and undesired signals. As long as the levels of the signals remain within the design specifications of the receiver, it will operate in a predictable manner. If any of the signals in the environment exceed the design specifications of the receiver, the receiver will begin to operate with unpredictable results. In addition to broadcast receivers, as mentioned above, a wide range of electronic devices can suffer blanketing interference from the signals of nearby radio and TV stations. For example, we are aware of problems with telephone equipment (including answering machines, hard-wired, cordless, and cellular telephones), hi-fi audio amplifiers, public address systems, electronic music keyboard instruments, professional studio and home recording components, and electronic medical equipment. Currently, however, protection of these devices are not the responsibility of the broadcast licensee.

4. Prior to 1985, the rules specified few requirements pertaining to blanketing interference.[5] They generally required licensees of broadcast stations to "assume full responsibility for the adjustment" or satisfy all "reasonable complaints" of blanketing interference. While the rules did define the vicinity in which AM radio licensees are responsible for alleviating blanketing interference as the geographical area within the 1 V/m signal contour, such contour areas for FM radio and television stations were not specified. The rules stated that the Commission did not have sufficiently complete information to establish specific "blanket[ing] areas" for FM radio and TV stations at that time, but simply described the vicinity for potential blanketing as "that area adjacent to the transmitter in which the reception of other stations is subject to interference due to the strong signal from" a nearby FM or TV station.

5. In light of the tremendous growth of the FM broadcast industry during the 1970's, cases of blanketing interference problems from FM stations increased. However, the rules were considered to be too ambiguous to permit proper enforcement. The difficulty centered on the lack of a definitive blanketing area and the uncertainty of the extent of a licensee's responsibility to correct it. Thus, in 1985, the Commission implemented rules, adopted in *Report and Order* in Docket No. 82-186 ("*Report and Order*"), which

[1] *See* 47 C.F.R. §1.411.
[2] We note that Section 22.353 of the Commission's rules, which concerns blanketing interference caused by stations in the Public Mobile Services, is generally patterned after the blanketing rule for FM broadcast stations. This rulemaking will not change Section 22.353, but if any substantial changes are made in the FM blanketing rule, we will consider making similar adjustments to Section 22.353 in a separate proceeding.
[3] A blanketing area is the area in the immediate vicinity of a broadcast station, where the signal of that station is so strong that it interferes with reception of other stations irrespective of the stations' frequencies.
[4] Desensitization is a reduction in receiver sensitivity caused by radiofrequency signal strength overload from a nearby transmitter. The resultant interference interrupts or prevents receivers from receiving signals of other broadcast stations or other intended communication services.
[5] *See* 47 C.F.R. §§ 73.88, 73.315(e), and 73.685(d), 1984.

set forth new procedures for addressing FM blanketing.[6] The new rules defined an area where blanketing interference could be assumed to exist, and described the conditions under which responsibility would be placed on licensees to remedy complaints of blanketing interference.[7]

6. The new rules at that time were intended to benefit both licensees and the listening public. The Commission believed that broadcast station applicants could perform cost-benefit analyses of their blanketing liabilities at proposed antenna sites before construction, and then make educated decisions on site suitability. By counting the homes within the calculated blanketing area, an applicant could determine a reasonable estimate of the expected cost of eliminating the interference. The rules were also intended to provide the listeners within that area some assurance of being able to continue reception of other existing stations in their area. Thus, the Commission believed that elimination of the ambiguity contained within the rules prior to January 1, 1985 would reduce the likelihood of arguments and litigation over disputes arising from blanketing interference.[8]

7. In the *Report and Order,* the blanketing area of an FM broadcast station was determined to be within the station's 115 dBu contour as calculated by use of the inverse distance equation, pursuant to Section 73.318(a).[9] The rules require that licensees satisfy all complaints of blanketing interference which are received by the station within a one year period, commencing with the station's program test operations, pursuant to Section 73.318(b).[10] Following the one year period of full financial obligation to satisfy blanketing complaints, the rules require licensees to provide technical information or assistance to complainants on remedies for blanketing interference, pursuant to Section 73.318(d).[11] In addition, collocated stations are required to share the responsibility of resolving interference complaints unless an individual offending station can be readily determined, and then, that station is to assume full financial responsibility, pursuant to Section 73.318(c).[12]

8. The rules also specifically note that certain interference complaints are not addressed in the rules. For instance, interference complaints resulting from malfunctioning or mistuned receivers, improperly installed antenna systems, or the use of high gain antennas or antenna booster amplifiers are not the responsibility of the licensee, pursuant to Section 73.318(b).[13] The rules also exclude interference to mobile receivers and non-RF devices, such as tape recorders or hi-fi amplifiers, also pursuant to Section 73.318(b).[14] However, in most cases involving complaints not covered under the blanketing interference rules, licensees take voluntary steps to assist in alleviating the interference to promote goodwill within the station's community.

9. The operational responsibilities of FM licensees concerning blanketing interference, as adopted in the *Report and Order,* were subsequently made applicable to AM licensees in December of 1991 as a result of a comprehensive review of AM broadcasting regulatory matters.[15] The above referenced blanketing requirements have not been explicitly made applicable to TV broadcasting licensees.

DISCUSSION

10. Because there are considerably more modifications for FM facilities than for AM or TV, and because FM broadcast antenna systems can be mounted on a simple single tower or tall building, and are thus more likely to be located closer to densely populated areas, most of the more difficult blanketing interference cases have resulted from new or modified FM broadcast facilities.[16] However, it has been the Commission's experience, since adoption of Section 73.318, that most complaints involving FM blanketing interference, as well as in the other broadcasting services, can be resolved, provided that there is full cooperation between the licensee and the complainants. Nonetheless, under the current rules, broadcast licensees sometimes have difficulty in resolving blanketing interference complaints. The main problem often centers on a difference of opinion between the licensee and the complainant as to what is expected of each party to resolve the interference. While the current rules provide the fundamental basis for the Commission's decisions in this area, the Commission finds that many licensees are misinterpreting their responsibilities under these rules. As a consequence, the Commission staff too often finds it necessary to correspond with complainants and licensees, and provide them with clarification of the obligations of parties on both sides of the issue.

11. In light of the current uncertainty and misinterpretations of the current blanketing interference regulations, the Commission now finds that the rules should be updated and restated with clarifications and emphasis placed on those requirements that are often misunderstood by broadcast licensees and the listening and viewing public. Therefore, in response to a growing number of blanketing interference problems, we initiate the instant rulemaking proceeding to provide refinements and clarity to the rules in order to facilitate resolution of broadcast blanketing interference complaints. In addition, because the same FM transmitter structural conditions also apply to the location of television broadcast installations, and similar blanketing conditions result, this proceeding proposes to explicitly apply the blanketing interference requirements to television broadcast licensees.

Blanketing Interference Contours

12. Section 73.88 currently requires licensees of each AM broadcast station to satisfy all reasonable complaints of blanketing interference within the 1 V/m contour. Unlike the rules for FM, which define the method of calculating the blanketing contour, no such method is specified for

[6] *Report and Order* in BC Docket No. 82-186, FCC 84-514, released November 8, 1984, 57 RR 2d 126 (1984).
[7] *See* 47 C.F.R. §73.318.
[8] *See Report and Order, supra* at para. 9.
[9] *See* 47 C.F.R. §73.318(a).
[10] *See* 47 C.F.R. §73.318(b).
[11] *See* 47 C.F.R. §73.318(d).
[12] *See* 47 C.F.R. §73.318(c).
[13] *See* 47 C.F.R. §73.318(b).
[14] *Ibid.,* §73.318(b).
[15] *See Report and Order* in MM Docket No. 87-267, 6 FCC Rcd 6273 (1991).
[16] On average, we open one new television broadcast station case a year, and less than ten cases a year for AM stations. For FM broadcast stations, however, we open nearly thirty new cases a year. Each case may involve as many as 100 to 200 complainants.

AM. Thus, the licensee may find it convenient to determine the 1 V/m contour by field measurements. As an alternative, determining the AM blanketing contour mathematically for a single tower antenna may result in a close approximation of the measured contour. Determination of the AM blanketing contour from multi-tower directional antenna arrays, however, may need to be calculated with near-field considerations.[17]

13. Thus, in continuing to use the current AM blanketing contour, we propose that for directional antenna array systems, the determination of the 1 V/m contour along each radial direction should be by actual mathematical vector summation of the field radiated by each antenna. Since this approach may require near-field considerations, we believe that a more realistic determination of the 1 V/m contour AM blanketing area would be reflected with this method. Therefore, we propose to amend the rules for the method of calculating the blanketing interference contour for AM broadcast stations as presented under proposed Section 73.1630(a) in Appendix A.

14. Because many of the transmitting antenna signal characteristics and structural locations are the same for both FM and television broadcast stations, we are not aware of any apparent reason, at this time, not to utilize for television stations the same blanketing area contour currently used for FM stations. Therefore, for regulatory consistency, we propose to amend the rules by specifying that the TV blanketing area be defined by the 115 dBu contour, as presented under proposed Section 73.1630(b) in Appendix A.

15. When the 115 dBu contour was originally proposed for FM blanketing in BC Docket No. 82-186,[18] most of the commenters agreed with its use. Now that the industry has had much experience with this contour level, we seek information as to whether it continues to be an appropriate contour for defining FM blanketing areas, and should be extended for defining television blanketing areas. In addition, because the 1 V/m contour used for describing the AM blanketing area was established at an even earlier period than the FM blanketing contour, we seek information as to whether the 1 V/m contour continues to be an appropriate contour level in today's radiofrequency environment. Approximate calculated distances of current blanketing contours under worse case conditions can range from: a quarter of a mile for Class-IV AM stations to nearly two miles for maximum powered Class-I and -II AM stations; 0.6 mile for Class A FM stations to nearly 2.5 miles for maximum powered Class C1 and C FM stations; and approximately 2.5 miles for television stations on Channels 2 - 6, 4 miles on Channels 7 - 13, and 8 miles for average powered stations on UHF-TV channels.

Licensee's Responsibility

16. Under the current rules, which we propose to continue, the licensee is financially responsible for resolving complaints when all three of the following conditions are met: (1) the complainant's affected device is located inside the station's blanketing contour; (2) the complainant filed notice to the station within the first year of program test authority; and (3) the interference is not to electrical devices excluded from protection by Section 73.318(b). When these conditions are met, the licensee must provide effective technical assistance in determining the cause of the problem and advising on corrective measures. Resolution of such blanketing interference complaints may involve the installation of electrical or electronic filters and traps, or the replacement of the complainants' affected equipment, and these efforts are at the licensee's expense and without cost to the complainant. If an otherwise valid complaint is lodged after the one year period, the licensee is only required to provide effective technical assistance in determining the cause of the problem and advice on corrective measures; the licensee is not financially responsible for any necessary corrective equipment or measures. If a complainant is located outside of the blanketing contour area and files after the one year period or the complaint involves devices and equipment excluded from protection, the licensee has no obligation under our rules to resolve the interference problem. However, as noted earlier, many licensees take voluntary steps to assist in alleviating the interference to promote goodwill within the station's community.

17. The resolution of most blanketing interference problems relies on the cooperation of both the licensee and the complainants. Complainants who do not respond to station inquiries, which are necessary to determine the appropriate remedy to their interference, or who do not allow a station's technical representative in their homes to address their blanketing interference, are impeding the resolution of that interference. In such cases, the station's obligation is considered fulfilled.

18. To give broadcast licensees further detailed guidance in resolving blanketing interference problems, we propose to publish in the rules an outlined summary of the station's responsibilities. We propose that the licensee responsibility will vary depending on (1) whether or not the complaint was filed within the first year of operation, (2) whether the complainant is located inside or outside the blanketing contour, and (3) whether the device experiencing interference is covered under the blanketing rule.[19]

19. Additionally, we note that in today's highly transitory society, neighborhoods may have many residents move in after the initial one year period specified in the rules. Further, the proliferation of new communications services and technology may bring into established neighborhoods many new devices subject to blanketing interference. Therefore, we seek comment on whether the Commission's rules should be modified for situations when blanketing interference occurs after the one year period. Further, we seek comment on whether locations of temporary lodging or transient residences, *e.g.*, hotels, university student dormitories, and rental properties should be subject to the blanketing rules beyond the one year limit. In other words, we seek comment on whether a station's obligation ends with that initial group of complainants that files within one year, or whether the station's obligation should extend to

[17] The near field is the electromagnetic field that exists within a distance of one wavelength from a transmitting antenna.

[18] *See Notice of Proposed Rule Making* in BC Docket No. 82-186 (47 Fed. Reg. 18936, May 3, 1982) adopted April 1, 1982.

[19] We note that these licensee responsibilities are currently established in Section 73.318, as discussed and adopted in *Report and Order* in BC Docket No. 82-186, *supra* at paras. 15, 17, and 20. The provisions of the current Section 73.318 are included in this proceeding under proposed Section 73.1630, which also includes a proposed list of devices covered and not covered by the blanketing interference rules.

subsequent residents. Further, we seek comment on whether these types of cases should be considered on a case-by-case basis.

Effective Technical Assistance

20. Section 73.1630(d) of the proposed rules states, "[f]ollowing the one year period of full financial obligation to satisfy blanketing complaints, licensees shall provide technical information or assistance to complainants on remedies for blanketing interference." The rule requires that a licensee provide information and assistance sufficiently specific to enable the complainant to eliminate all blanketing interference and not simply that the station attempt to correct the problems.[20] Effective technical assistance entails providing specific details about proper corrective measures to resolve the blanketing interference. For example, licensees may provide complainants with diagrams and descriptions which explain how and where to use radiofrequency chokes, ferrite cores, filters, and/or shielded cable. In addition, effective technical assistance also includes the recommendation on replacement equipment that would work better in the high radiofrequency fields. We note that the licensee may authorize a consultant or service company to provide this information or assistance. However, effective technical assistance is not rendered merely by referring the complainant to the equipment manufacturer.

High Gain Antennas

21. Section 73.318(b) specifies the conditions under which licensees and permittees must satisfy complaints of blanketing interference. It states, in pertinent part, that "[t]hese requirements specifically do not include interference complaints resulting from malfunctioning or mistuned receivers, improperly installed antenna systems, or the use of high gain antennas or antenna booster amplifiers." It has been our experience that high gain antennas have not been a factor in blanketing interference problems. Therefore, we propose to delete reference to high gain antennas from our blanketing rules and seek comment accordingly.

Telephone Interference

22. A great number of blanketing interference complaints are submitted because of interference to telephones. The Commission's blanketing rules, however, do not currently require broadcasters to resolve telephone interference. Hard-wired telephones are considered non-RF devices under the current blanketing interference rules and thus, are excluded from protection per Section 73.318(b). Cordless telephones are covered by Part 15 of the Commission's rules and thus, Section 15.5(b) states, in pertinent part, that cordless telephones may not cause harmful interference and that interference to cordless telephones caused by the operation of an authorized radio station must be accepted. Portable and mobile cellular telephones are RF devices licensed under Part 22, Subpart K, and are considered as mobile receivers, and thus, not protected by the current blanketing interference rules. Because cell sites are fixed locations, however, they would be protected from blanketing interference by the Commission's rules.

23. Telephone interference, however, is one of the fastest growing interference concerns in the country. The Commission receives approximately 25,000 complaints per year from individuals who are unable to use their telephones because of some type of nearby radio interference. The Commission has conducted a study to obtain information about such telephone interference.[21] While the Commission found that most of the interference resulted from transmissions by citizens band and amateur radio operators, nearly 20% of the complainants received interference from AM stations, and another 10% received interference from FM stations. In conducting the survey, the Commission found a large portion of the residential telephones appeared to be susceptible to interference from nearby radio transmitting stations.[22] However, the Commission concluded from the survey that manufacturers apparently can design telephones to be interference free. Further, the Commission has recently authorized the use of the personal communications service (PCS) in a 7 billion dollar auction and therefore, we seek comment on the effects of blanketing interference on PCS.

24. We are concerned about interference to all telephones and wireless devices, including interference that may develop in future PCS and specialized mobile radio (SMR) systems. Therefore, we seek specific comment on the following questions:

a. Should the Commission require broadcasters to resolve interference to telephones, either hard-wired or wireless?

b. If so, to what extent should broadcast licensees be responsible for resolving the interference? The Commission found, while conducting the telephone interference survey, that filters are not always reliable in eliminating residential telephone interference. Thus, if such filtering devices are ineffective and licensees are not required to furnish them, to what extent should licensees provide other technical information and assistance?

c. Should the Commission rely on industry voluntary efforts to implement interference free design standards for telephones, or should the Commission initiate a separate rulemaking proceeding to consider imposing higher interference immunity standards for residential telephones?

d. If voluntary standards for interference immunity are developed, should there be any blanketing requirements for telephones that do not meet the voluntary standards for interference free telephones?

Licensee's Response Time

25. There is currently no criteria for speed of service for correcting blanketing interference caused by new or modified station operation. Based on case history, many stations

[20] *See* Calvary Educational Broadcasting Network, Inc., 7 FCC Rcd 4037 (1992).

[21] *See* FCC NEWS release No. 42874, May 4, 1994 announcing the "Telephone Interference Survey," May 2, 1994, prepared by Field Operations Bureau.

[22] While these were complaints of radio broadcast interference, the complainants were not necessarily within the blanketing interference contour areas as currently defined for broadcast stations.

have been slow to respond, *i.e.,* months before a complaint was acted upon, and often even further delay before the interference was finally corrected. There is also no specific requirement to maintain records of name, location, type of complaint, etc. The public inspection file requirements, however, do specify that license application engineering related matters need not be retained longer than three years in the local public inspection file.[23] Accordingly, in that blanketing interference is of engineering related circumstances, the Commission expects broadcast licensees to maintain all letters of such complaints that are timely filed with the station per the proposed Section 73.1630. However, in order to establish a station's definitive efforts to solve blanketing interference, should we require stations to maintain a specific log for some period of time, such as two years after new construction or transmitter modification which would include name, location, phone number, date complaint filed, date complaint resolved, type of complaint, list of affected equipment (manufacturer's name and model number), and what action it took to resolve the complaint? And finally, should we require licensees to respond to complaints within a specified period such as 10 working days and to resolve the complaints within an additional period of time such as 30 calendar days?

Radiofrequency Radiation

26. Because their broadcast receivers and other various electronic components are adversely affected by blanketing interference, some complainants assume that their personal safety might be at risk, expressing concern about the possible biological effects of radiofrequency radiation on their health. However, based on application of FCC Office of Science and Technology (OST) Bulletin No. 65, entitled "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation," broadcast applicants must demonstrate that they comply with FCC specified radiation guidelines. The OST Bulletin incorporates the American National Standards Institute (ANSI) standards (C95.1-1982) for use in evaluating human exposure to radiofrequency radiation.[24] Furthermore, the facilities for each pending construction permit and license are studied prior to grant to confirm compliance with the current RF radiation guidelines used by the Commission. Therefore, we do not propose to consider radiofrequency radiation as a broadcasting blanketing interference issue.

Visual Pollution Complaints

27. Some complainants have also submitted claims of blanketing interference, when in reality they objected to the actual construction or visibility of an antenna tower in their area, often referred to as "visual pollution." With regard to complaints concerning visual pollution caused by a licensee's broadcast tower, however, local authorities generally have the legal jurisdiction, and because of their location, experience and awareness of local values, are best situated to resolve local land use and related aesthetic questions.[25] Thus, the Commission generally accords deference to local authorities' rulings and views in these matters,[26] and does not propose to implement any "visual pollution" regulations in this proceeding. In any case, this question is not involved in blanketing interference considerations. However, we remind licensees that they are expected to follow the Commission's environmental rules.[27]

CONCLUSION

28. In light of the proliferation of electronic equipment available to consumers, the increase in the number of broadcast stations, and our concern about the effects of blanketing interference on future wireless communication systems, we believe that it is time to revisit the subject of broadcast blanketing interference. In addition to proposing amendments to refine the Commission's rules and regulations in this area for broadcast licensees, this proceeding may stimulate various related industry manufacturers to begin to meet the challenge of producing components that are less susceptible to blanketing interference.[28] We are proposing specific rule amendments in the broadcast services that primarily clarify our current requirements. Additionally, we seek specific comment on the questions raised, especially those regarding telephone interference, and the specific rule amendments proposed in Appendix A.

ADMINISTRATIVE MATTERS

Ex Parte Rules -- Non-Restricted Proceeding

29. This is a non-restricted notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in Commission rules. *See generally* 47 C.F.R. §§1.1202, 1.1203 and 1.1206(a).

Initial Paperwork Reduction Act of 1995 Analysis

30. This NPRM contains either a proposed or modified information collection. As part of its continuing effort to reduce paperwork burdens, we invite the general public and the Office if Management and Budget (OMB) to take this opportunity to comment on the information collections contained in this NPRM, as required by the Paperwork Reduction Act of 1995, Pub. L. No 104-13. Public and agency comments are due at the same time as other comments on this NPRM; OMB comments are due 60 days from date of publication of this NPRM in the Federal Register. Comments should address: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission,

[23] See 47 C.F.R. §73.3526(e)(2)(i)&(ii) and §73.3527(e)(2)(i)&(ii).

[24] In *Notice of Proposed Rule Making* in ET Docket No. 93-62 (58 Fed. Reg. 19393, April 14, 1993) adopted March 11, 1993, the Commission currently has a pending rulemaking proceeding to update the guidelines and methods used for evaluating the environmental effects of radiofrequency radiation from FCC regulated facilities.

[25] *See* GTE Spacenet Corporation, FCC 86-120, (released March 18, 1986), Blair Broadcasting of California Inc., 55 RR 2d 619 (1984).

[26] *See Implementation of National Environmental Policy Act (NEPA),* 49 FCC 2d 1313, 1329 (1974); but see In re Preemption of Local Zoning or Other Regulations of Receive-Only Satellite Earth Stations, 60 Fed. Reg. 28077 (adopted May 30, 1995) in which the Commission proposes to revise preemption rules applicable to local zoning regulation of satellite earth stations.

[27] *See* 47 C.F.R. §1.1301 et seq.

[28] The Telecommunications Industries Association and Electronic Industries Association have developed a voluntary standard, "Telecommunications Telephone Terminal Equipment: Radio Frequency Immunity Requirements for Equipment having an Acoustical Output" (TIA/EIS PN-3210).

including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

Comment Information

31. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§1.415 and 1.419, interested parties may file comments on or before **June 25, 1996** and reply comments on or before **July 25, 1996**. To file formally in this proceeding, you must file an original plus five copies of all comments, reply comments, and supporting comments. If you want each Commissioner to receive a personal copy of your comments, you must file an original plus nine copies. You should send comments and reply comments to Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center (Room 239), 1919 M Street, N.W., Washington, D.C. 20554.

32. Written comments by the public on the proposed and/or modified information collections are due **June 25, 1996**. Written comments must be submitted by the Office of Management and Budget (OMB) on the proposed and/or modified information collections on or before [insert date 60 days after date of publication in the Federal Register]. In addition to filing comments with Secretary, a copy of any comments on the information collections contained herein should be submitted to Dorothy Conway, Federal Communications Commission, Room 234, 1919 M Street, N.W., Washington, DC 20554, or via the Internet to dconway@fcc.gov and to Timothy Fain, OMB Desk Officer, 10236 NEOB, 725 - 17th Street, N.W., Washington, DC 20503 or via the Internet to fain_t@al.eop.gov.

Regulatory Flexibility Act

33. An Initial Regulatory Flexibility Analysis is contained in Appendix B of this Notice of Proposed Rule Making.

Additional Information

34. For additional information on this proceeding, contact Bernard Gorden (202) 418-2190, or Robert Greenberg (202) 418-2720, Mass Media Bureau.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton
Acting Secretary

APPENDIX A

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

PART 73 - RADIO BROADCAST SERVICES

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

AUTHORITY: 47 U.S.C. 154, 303, 334.

2. Sections 73.88 is removed.

3. Section 73.318 is removed.

4. Section 73.685 is amended by revising paragraph (d) to read as follows:

§73.685 Transmitter location and antenna system.

* * * * *

(d) (See Section 73.1630 concerning blanketing interference)

* * * * *

5. A new Section 73.1630 is added to Subpart H to read as follows:

§73.1630 Blanketing interference.

(a) Calculation of the Blanketing Interference Contour for **AM** Stations. Areas adjacent to the transmitting antenna that receive a signal with a strength of 1 V/m or greater will be assumed to be blanketed. The determination of the location of the 1 V/m contour along a radial shall be by actual field strength measurement or by iterative vector summation of the field radiated by each antenna until the 1 V/m contour is located. The distance from each tower to the point at which the fields are being summed, shall be calculated using the Cosine Law with the distance from the tower to the array reference point being one side, the distance to the point of summation from the reference point being the second side and the angle between the two sides being the included angle. The field radiated by each tower is attenuated using only inverse distance attenuation and the phase of the field component from each tower shall be taken as the phase of the current at the tower's current loop minus the space phase from the tower to the point of summation.
Note to paragraph (a): *If d_n is the distance from the reference point to the point of summation, s_n the distance from the reference point to the tower n, and Φ_n the included angle, the distance D_n from tower n, is given by $D_n = (d_n^2 + s_n^2 - 2d_n s_n \cos(\Phi))^{1/2}$. The Field*

$\mathfrak{E}$, a vector quantity, is given by $\mathfrak{E} = \Sigma\, \mathfrak{E}_n/D_n$ where $\mathfrak{E}_n$ is the field radiated by tower n and D_n is the distance from tower n.

(b) Calculation of the Blanketing Interference Contour for **FM** and **TV** Stations. Areas adjacent to the transmitting antenna that receive a signal with a strength of 115 dBu (562 mV/m) or greater will be assumed to be blanketed. In determining the blanketed area, the 115 dBu contour is determined by calculating the inverse distance field using the effective radiated power of the maximum radiated lobe of the antenna without considering its vertical radiation pattern or height. For directional antennas, the effective radiated power in the pertinent bearing shall be used.

The distance to the 115 dBu contour is determined using the following equation:

D (in kilometers) = $0.394\sqrt{P}$
D (in miles) = $0.245\sqrt{P}$

Where P is the maximum effective radiated power (ERP), measured in kilowatts, of the maximum radiated lobe.

(c) After January 1, 1997, permittees or licensees who either commence program tests, replace their antennas, or request facilities modifications and are issued a new construction permit must satisfy all complaints of blanketing interference which are received by the station during a one year period. The period begins with the commencement of program test, or commencement of programming utilizing the new antenna. Resolution of complaints shall be at no cost to the complainant. These requirements specifically do not include interference complaints resulting from malfunctioning or mistuned receivers, improperly installed antenna systems, or the use of antenna booster amplifiers. Mobile receivers and non-RF devices such as tape recorders or hi-fi amplifiers (phonographs) are also excluded. (See Table A for covered devices and non-covered devices.)

(d) A permittee collocating with one or more existing stations and beginning program tests on or after January 1, 1997, must assume full financial responsibility for remedying new complaints of blanketing interference for a period of one year. Two or more permittees that concurrently collocate on or after January 1, 1997, shall assume shared responsibility for remedying blanketing complaints within the blanketing area unless an offending station can be readily determined and then that station shall assume full financial responsibility.

(e) Following the one year period of full financial obligation to satisfy blanketing complaints, licensees shall provide technical information or assistance to complainants on remedies for blanketing interference.

(f) A summary of the station's responsibilities are as follows:

1. **COMPLAINANT WITHIN THE BLANKETING CONTOUR**
   (i) **Complaint Received Within First Year of Operation** - Paragraph (c) of this section
      (A) DEVICES COVERED UNDER Section 73.1630 - Licensee/permittee is

financially responsible for resolving interference complaints. See FM Broadcast Station Blanketing Interference, FCC 84-514, 49 FR 45142 (1984) at paragraph 15.

(B) DEVICES NOT COVERED UNDER Section 73.1630 - Licensee/permittee is not financially responsible for resolving interference complaints.

(ii) **Complaint Received After First Year of Operation** - Paragraph (e) of this section

(A) DEVICES COVERED UNDER Section 73.1630 - Licensee/permittee is not financially responsible for resolving interference complaints. Licensee/permittee is required to provide technical assistance to complainants. This entails the providing of information on the cause of the interference and also providing information on proper corrective measures. See FM Broadcast Station Blanketing Interference, FCC 84-514, 49 FR 45142 (1984) at paragraph 20.

(B) DEVICES NOT COVERED UNDER Section 73.1630 - Same as paragraph (f)(1)(i)(B) of this section.

2. **COMPLAINANT OUTSIDE THE BLANKETING CONTOUR**

(i) **Complaint Received Within First Year of Operation** - Paragraph (c) of this section

(A) DEVICES COVERED UNDER Section 73.1630 - Licensee/permittee is not financially responsible for resolving interference complaints. However, the licensee/permittee is expected to cooperate with complainants by providing technical assistance in determining the cause of the problem and providing advice on corrective measures. See FM Broadcast Station Blanketing Interference, FCC 84-514, 49 FR 45142 (1984) at paragraph 17.

(B) DEVICES NOT COVERED UNDER Section 73.1630 - Same as paragraph (f)(1)(i)(B) of this section.

(ii) **Complaint Received After First Year of Operation** - Paragraph (e) of this section

(A) DEVICES COVERED UNDER Section 73.1630 - Same as paragraph (f)(1)(i)(B) of this section.

(B) DEVICES NOT COVERED UNDER Section 73.1630 - Same as paragraph (f)(1)(i)(B) of this section.

Table
Covered and Non-covered Devices

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DEVICES COVERED UNDER 47 CFR §73.1630

Receivers, Tuners, and RF Amplifiers
- Radio (stationary or portable)
- TV (stationary or portable)
- Satellite TV
- VCR
- Cable TV head-end
- Fixed radio sites for cellular systems, private radio services, SMR and PCS systems.

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DEVICES NOT COVERED UNDER 47 CFR §73.1630

- Malfunctioning or mistuned receivers
- Improperly installed antenna systems
- Antenna booster amplifiers

Mobile receivers and non-RF devices such as:
- Mobile receivers (i.e. Walkman or Watchman)
- Car radios
- Musical instrument amplifiers
- All Telephones (including hard-wired, cordless, mobile or pocket cellular or PCS units)
- Answering machines
- Digital or Analog tape recorders
- CD players
- Phonographs
- Computers

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DEFINITIONS

Mobile Receivers - Devices that do not remain in one fixed location. These devices are excluded due to their inherently transient nature. See FM Broadcast Station Blanketing Interference, FCC 84-514, 49 FR 45142 (1984) at paragraph 25.

Portable Receivers - Capable of being carried, whether operating by electric cord or batteries.

NOTE: Not all portable receivers are operated in the mobile mode.

APPENDIX B

INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by Section 603 of the Regulatory Flexibility Act, the Commission has prepared the following Initial Regulatory Flexibility Analysis (IRFA) of the expected impact on small entities of the proposals suggested in this document. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments on the rest of the Notice, but they must have a separate and distinct heading designating them as responses to the Initial Regulatory Flexibility Analysis. The Secretary shall send a copy of this Notice of Proposed Rule Making, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with paragraph 603(a) of the Regulatory Flexibility Act (Pub. L. No. 96-354, 94 Stat. 1164, 5 U.S.C. §601 et seq. (1981)).

Reason for Action

This action is taken in order to clarify to what extent broadcast licensees are responsible for eliminating blanketing interference cause by their individual stations. In addition, this action is taken to refine and specify methods for determining the geographical blanketing area.

Objectives

In many cases, the licensee's responsibility in eliminating blanketing interference is misunderstood by listeners and broadcaster alike. Thus, the objectives of this action is intended to remove confusion and facilitate the resolution of broadcast blanketing interference problems.

Legal Basis

Authority for the actions proposed in this Notice may be found in Sections 4 and 303 of the Communications Act of 1934, as amended, 47 U.S.C. §§154 and 303.

Reporting, Recordkeeping, and Other Compliance Requirements

None.

Federal Rules which Overlap, Duplicate, or Conflict with the Proposed Rule

None.

Description, Potential Impact and Number of Small Entities Involved

(To be developed by Audio and Video Services)

Any Significant Alternatives Minimizing the Impact on Small Entities and Consistent with the Stated Objectives

There are none apparent.