§21.925 Applications for BTA authorizations and MDS station licenses..

* * * * *

(b) Separate long-form applications must be filed for each individual MDS station license sought within the protected service area of a BTA or PSA, including:

(1) an application for each E-channel group, F-channel group, and single H, 1, and 2A channel station license sought;

(2) an application for each MDS response station hub license sought;

(3) an application for each MDS booster station that will operate with an EIRP in excess of -9 dBW (or, when subchannels or superchannels are used, the appropriately adjusted value based upon the ratio of 6 MHz to the subchannel or superchannel bandwidth); and

(4) an application for authority to operate at an MDS station in the area vacated by an MDS station incumbent that has forfeited its station license; and

(5) an application for each ITFS-channel group station license sought in accordance with §§74.990 and 74.991.

* * * * *

21. In Section 21.938, paragraph (b) would be revised to read as follows:

§21.938 BTA and PSA technical and interference provisions.

* * * * *

(b) Unless the affected parties have executed a written interference agreement in accordance with §21.937, and subject to the provisions of §§21.909, 21.913, 74.939 and 74.985 regarding the protection of response station hubs and booster stations from harmful electromagnetic interference, stations licensed to a BTA or PSA authorization holder must not cause harmful electromagnetic interference to the following:

(1) the protected service area of other authorization holders in adjoining BTAs or PSAs.

(2) the 56.33 km (35 mile) protected service areas of authorized or previously proposed MDS stations (incumbents).

(3) registered receive sites and protected service areas of authorized or previously proposed stations in the Instructional Television Fixed Service pursuant to the manner in which interference is defined in §74.903(a).

* * * * *

PART 74 - EXPERIMENTAL, AUXILIARY, AND SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTION SERVICES

22. The authority citation for Part 74 continues to read as follows:

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

23. Section 74.901 would be revised by amending the definition of an ITFS response station and by adding definitions for "Booster Service Area ", "Response Station Hub License ", "Response Station Hub" and "Sectorization" to read as follows:

§74.901 Definitions.

* * * * *

Booster Service Area. A geographic area to be designated by an applicant for a booster station, within which the booster station shall be entitled to protection against interference as set forth in this Part. The booster service area must be specified by the applicant so as to not overlap the booster service area of any other booster authorized to or proposed by the applicant. However, a booster station may provide service to receive sites outside of its booster service area, at the licensee's risk of interference. The booster station must be capable of providing substantial service within the designated booster service area.

* * * * *

ITFS response station. A fixed station operated by an ITFS licensee, the lessee of ITFS channel capacity or a subscriber of either to communicate with a response station hub or associated ITFS station. A response station under this part may share facilities with other ITFS response stations and/or one or more Multipoint Distribution Service (MDS) response stations authorized pursuant to §21.909.

* * * * *

Response Station Hub. A fixed facility licensed to an ITFS licensee and operated by an ITFS licensee or the lessee of an ITFS channel for the reception of information transmitted by one or more ITFS or MDS response stations. A response station licensed under this part may share facilities with other ITFS response station hubs, MDS response station hubs authorized pursuant to §21.909, MDS signal booster stations and/or ITFS signal booster stations.

Response Station Hub License. A blanket license authorizing the operation of a single response station hub at a specific location and the simultaneous operation of a limited number of associated response stations of one or more classes at unspecified locations within one or more regions of the response service area.

* * * * *

Sectorization. The use of an antenna system at an ITFS station, booster station and/or response station hub that is capable of simultaneously transmitting multiple signals over the same frequencies to different portions of the service area and/or simultaneously receiving multiple signals over the same frequencies from different portions of the service area.

Signal Booster Station. An ITFS station licensed for use in accordance with §74.985 that operates on one or more ITFS channels. Signal booster stations are intended to augment service as part of a distributed transmission system where signal booster stations retransmit the signal of an ITFS station and/or originate information. A signal booster station licensed under this part may share facilities with other ITFS signal booster stations, MDS signal booster stations authorized pursuant to §21.913, MDS response stations and/or ITFS response stations.

* * * * *

24. In Section 74.902, paragraphs (c) and (d) would be amended and a new paragraph (k) added to read as follows:

§74.902 Frequency assignments.

* * * * *

(c) Channels 2596-2602, 2602-2608, 2608-2614, 2614-2620, 2620-2626, 2626-2632, 2632-2638, and 2638-2644 MHz and the corresponding 125 kHz channels listed in §74.939(i) are shared with the Multipoint Distribution Service. No new Instructional Television Fixed Service applications for these channels filed after May 25, 1983 will be accepted. In those areas where Multipoint Distribution Service use of these channels is allowed pursuant to §21.902, Instructional Television Fixed Service users of these channels will continue to be afforded protection from harmful co-channel and adjacent channel interference from Multipoint Distribution Service stations.

(d) (1) A licensee is limited to the assignment of no more than four 6 MHz and four 125 kHz channels for use in a single area of operation, all of which should be selected from the same Group listed in paragraph (a) of this section unless good cause to utilize channels from multiple Groups is shown. An area of operation is defined as the area 20 miles or less from the ITFS transmitter. Applicants shall not apply for more channels than they intend to construct within a reasonable time, simply for the purpose of reserving additional channels. The number of channels authorized to an applicant will be based on the demonstration of need for the number of channels requested. The Commission will take into consideration such factors as the amount of use of any currently assigned channels and the amount of proposed use of each channel requested, the amount of, and justification for, any repetition in the schedules, and the overall demand and availability of ITFS channels in the community. For those applicant organizations formed for the purpose of serving accredited institutional or governmental organizations, evaluation of the need will only consider service to those specified receive sites which submitted supporting documentation pursuant to §74.932(a)(4).

(2) An applicant leasing excess capacity and proposing a schedule which complies in all respects with the requirements of §74.931(e) will have presumptively demonstrated need, in accordance with paragraph (d)(1) of this section, for no more than four channels. This presumption is rebuttable by demonstrating that the application does not propose to comport with our educational programming requirements, that is, to transmit some formal educational programming, as defined in §74.931(a), and to transmit the requisite minimum programming of §74.931(e) for genuinely educational purposes and to receive sites when students are there.

* * * * *

(k) The Commission shall require that an ITFS station retune to other ITFS or MDS channels in the 2500-2686 MHz band upon application filed by another ITFS or MDS licensee with facilities in the same market, where the requesting party agrees to bear the costs of the retuning of the transmission and any installed receive facilities and demonstrates that the retuned facilities will be comparable to the licensed facilities.

(1) Prior to submitting an application pursuant to paragraph (k), the applicant must provide the licensee with written notice requesting that the licensee retune to other channels in the 2.5 GHz band, agreeing to pay all costs associated with such retuning and demonstrating that comprable facilities are available.

(2) Service of the notice provided for in subparagraph (1) shall commence a period during which the parties can negotiate voluntary arrangements for retuning. At any time more than thirty (30) days after service of the notice, either party may terminate negotiations. If the negotiations lead to a voluntary agreement, the licensee shall then file an application with the Commission proposing to voluntarily change to other channels, which application will be treated like any other major modification application. If the negotiations are terminated without an agreement being reached, the proponent of the retuning proposal can then refer it to the Commission for resolution by submitting an application in the name of the licensee proposing a change in channels along with any other contingent applications necessary to effectuate the returning (such as a proposal by another licensee to retune its channels to make channels available for the proposed mandatory retuning). Notwithstanding any other provisions of this Part, applications filed in connection with a voluntary or Commission-coordinated retuning should be accepted at any time and cut-off from competing applications as of the close of business on the day of filing. However, in order to afford the Commission an opportunity to determine whether comparable facilities are available before a request for a Commission-coordinated retuning can be granted, applications filed by the proponent of retuning without the licensee's consent should not be eligible for processing pursuant to [citation to provisions for automatic or expedited processing of applications].

(3) For purposes of this paragraph (k), comparable facilities will be deemed available where it is possible for the existing facility to retune to other channels in the 2500-2686 MHz band while still receiving at least a 45 dB desired-to-undesired ("D/U") signal ratio from co-channel operations and a 0 dB D/U signal ratio from adjacent channel operations at registered ITFS receive sites and any protected service area. In those cases where the existing facility receives a lower D/U signal ratio at one or more locations, comparable facilities shall be deemed available where it is possible

for the retuned facility to provide no lesser D/U signal ratio at those locations. In determining whether comparable facilities can be achieved, the requesting party may propose receive antenna upgrades and the replacement of pre-May 26, 1983 downconverters pursuant to §74.903(a).

* * * * *

25. In Section 74.903, paragraph (a)(3) would be amended and paragraph (b)(6) would be added to read as follows:

§74.903 Interference.

(a) * * *

(3) For purposes of this section and except as set forth in §74.939 regarding the protection of response station hubs, all interference calculations involving receive antenna performance shall use the reference antenna characteristics shown in Figure 1, §74.937(a) or, in the alternative, utilize the actual pattern characteristics of the antenna in use at the receive site under study. If the actual receive antenna pattern is utilized, the applicant must submit complete details including manufacturer, model number(s), co-polar and cross-polar gain patterns, and other pertinent data.

* * * * *

(b) * * *

(6) Special rules relating to response service areas and booster service areas are set forth in §§21.909, 21.913, 74.939 and 74.985. To the extent those special rules are inconsistent with any rules set forth above, those special rules shall control.

* * * * *

26. In Section 74.911, paragraph (a)(1) would be amended and a new paragraph (e) would be added to read as follows:

§74.911 Processing of ITFS station applications.

(a) * * *

(1) In the first group are applications for new stations or major changes in the facilities of authorized stations. These applications are subject to the provisions of paragraph (c) of this section. A major change for an ITFS station will be any proposal to add new channels, change from one channel (or channel group) to another, change polarization, increase the EIRP in any direction by more than 1.5 dB, increase the transmitting antenna height by 25 feet or more, or relocate a facility's transmitter site by 10 miles or more. Applications submitted pursuant to §§74.939 and 74.985 shall not be considered major change applications. However, the Commission may, within 15 days after the acceptance of an application, or 15 days after the acceptance of any other application for

modification of facilities, advise the applicant that such application is considered to be one for a major change, and subject to the provisions of paragraph (c) of this section.

* * * * *

(e) Notwithstanding any other provisions of this Part 74, effective as of [date of adoption of new rules], there shall be one one-week window at such time as the Commission shall announce by public notice for the filing of applications for booster stations and response station hub licenses, during which all applications shall be deemed to have been filed as of the same day for purposes of §§74.939 and 74.985. Following the publication of a public notice announcing the tendering for filing of applications submitted during that window, applicants shall have a period of sixty (60) days to amend their applications, provided such amendments do not result in any increase in interference to any previously proposed or authorized station (including facilities proposed during the window) absent consent of the applicant for or licensee of the station that would receive such additional interference. At the conclusion of that sixty (60) day period, the Commission shall publish a public notice announcing the acceptance for filing of all applications submitted during the initial window, as amended during the sixty (60) day period. All petitions to deny such applications must be filed within sixty (60) days of such second public notice.

27. In Section 74.912, paragraph (a) would be revised to read as follows:

§74.912 Petitions to deny.

(a) Any party in interest may file with the Commission a petition to deny any application for new facilities or major changes in the facilities of authorized stations, provided such petitions are filed by the date established pursuant to the cut-off provisions of §74.911(c). In the case of all other applications, except those excluded under Section 309(c) of the Communications Act of 1934, as amended, and except as provided in §§74.939 and 74.985, petitions to deny must be filed not later than 30 days after issuance of a public notice of the acceptance for filing of the applications. In the case of applications for renewal of license, petitions to deny may be filed after the issuance of a public notice of acceptance for filing of the applications and up until the first day of the last full calendar month of the expiring license term. Any party in interest may file with the Commission a petition to deny any notification regarding ITFS booster stations within the 60 day period provided for in §74.985(e).

* * * * *

28. In Section 74.931, paragraphs (a)(1), (b) and (e) would be revised to read as follows:

§74.931 Purpose and permissible service.

(a)(1) Instructional television fixed stations are intended primarily to provide a formal educational and cultural development in aural and visual form, to students enrolled in accredited public and private schools, colleges and universities. Authorized instructional television fixed station channels must be used to transmit formal educational programming offered for credit to enrolled students of

accredited schools or for response channels employed in connection with formal educational courses offered for credit to enrolled students of accredited schools, with limited exceptions as set forth in paragraph (e)(9) of this section and §§74.990 through 74.992 of this part.

(2) * * *

(b) Such stations may also be used for the additional purpose of transmitting other visual and aural educational, instructional and cultural material to selected receiving locations, including in-service training and instruction in special skills and safety programs, extension of professional training, informing persons and groups engaged in professional and technical activities of current developments in their particular fields, and other similar endeavors, and for transmitting associated information from ITFS response stations to response station hubs.

* * * * *

(e) A licensee may use excess capacity on each channel to transmit material other than the ITFS subject matter specified in paragraphs (a), (b), (c), and (d) of this section subject to the following conditions:

(1) * * *

(2) If the time or capacity leased is to be used for "wireless cable" operations (the provision of video, voice and/or data services to subscribers), before leasing excess capacity on any one channel, the licensee must provide at least 20 hours per week of ITFS programming on that channel, except as provided in paragraph (e)(3) of this section. All hours not used for ITFS programming may be leased to a "wireless cable" operator. An additional 20 hours per week per channel must be reserved for recapture by the ITFS licensee for its ITFS programming, subject to one year's advance, written notification by the ITFS licensee to its "wireless cable" lessee. These hours of recapture are not restricted as to time of day or day of the week, but may be established by negotiations between the ITFS licensee and the "wireless cable" lessee.

* * * * *

(9) A licensee may shift its requisite ITFS programming onto fewer than its authorized number of channels, via channel mapping technology or channel loading, so that it can lease full-time channel capacity on its ITFS station, associated ITFS booster stations or on ITFS response stations and associated response station hubs to a wireless cable operator, subject to the condition that it provide a total average of at least 20 hours per channel per week of ITFS programming either on its authorized channels or on channels not authorized to it, but which are included in the wireless system of which it is a part. The use of channel mapping or channel loading in accordance with the preceding sentence shall not be considered adversely to the ITFS licensee in seeking a license renewal or otherwise. The licensee also retains the unbridgeable right to recapture, subject to six months' written notification to the wireless cable operator, an average of an additional 20 hours per channel per week for simultaneous programming on the number of channels for which it is

authorized. The licensee may agree to the transmission of this recapture time on channels not authorized to it, but which are included in the wireless system of which it is a part.

* * * * *

29. In Section 74.935, paragraphs (a) and (b) would be revised as follows:

§74.935 Power limitations.

(a) The maximum equivalent isotropically radiated power (EIRP) of a primary or booster station in this service shall not exceed 2000 watts (33 dBW) except as provided in paragraph (b) of this section.

(b) If a primary or booster station sectorizes or otherwise uses one or more transmitting antennas with a non-omnidirectional horizontal plane radiation pattern, the maximum equivalent isotropically radiated power (EIRP) in dBW in a given direction shall be determined by the following formula:

EIRP = 33 dBW + 10 log (360/beamwidth) [where 10 log (360/beamwidth) < 6 dB]

Beamwidth is the total horizontal plane beamwidth of the individual transmitting antenna for the station or any sector measured at the half-power points.

* * * * *

30. Sections 74.936 would be revised in its entirety to read as follows:

§74.936 Emissions and bandwidth.

(a) An instructional television fixed station shall normally employ amplitude modulation (C3F) for the transmission of the visual signal and frequency modulation (F3E) or (G3E) for the transmission of the aural signal when transmitting a standard analog television signal. Quadrature amplitude modulation, digital vestigial sideband modulation, quadrature phase shift key modulation and code division multiple access may also be employed, subject to compliance with the policies set forth in the *Declaratory Ruling and Order*, 11 FCC Rcd 18839 (1996).

(b) On or after November 1, 1991, the maximum out-of-band power of a transmitter or of a booster transmitting on a single channel with an effective isotropic radiated power in excess of -9 dBW employing analog modulation shall be attenuated at the channel edges by at least 38 dB relative to the peak visual carrier, then linearly sloping from that level to at least 60 dB of attenuation at 1 MHz below the lower band edge and 0.5 MHz above the upper band edge, and attenuated at least 60 dB at all other frequencies. The maximum out-of-band power of a transmitter or of a booster transmitting on a single channel or a portion thereof with an effective isotropic radiated power in excess of -9 dBW employing digital modulation shall be attenuated at the licensed channel edges

at least 25 dB relative to the licensed average power level (or, when subchannels are used, the appropriately adjusted value based upon the ratio of the channel-to- subchannel bandwidths), then attenuated along a linear slope from that level to at least 40 dB at 250 kHz above or below the nearest channel edge, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the lower licensed channel edges, and attenuated at least 60 dB at all other frequencies. Notwithstanding the foregoing, in situations where a booster station transmits, or where adjacent channel licensees jointly transmit, a single signal over more than one contiguous channel utilizing digital modulation with an effective isotropic radiated power in excess of -9 dBW (or, when subchannels or superchannels are used, the appropriately adjusted value based upon the ratio of 6 MHz to the subchannel or superchannel bandwidth), the maximum out-of-band power shall be attenuated at the channel edges of those combined channels at least 25 dB relative to the power level of each channel, then attenuated along a linear slope from that level to at least 40 dB at 250 kHz above or below the channel edges of those combined channels, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the lower edges of those combined channels, and attenuated at least 60 dB attenuation at all other frequencies. However, should harmful interference occur as a result of emissions outside the assigned channel, additional attenuation may be required. A transmitter licensed prior to November 1, 1991, that remains at the station site initially licensed, and does not comply with this subsection, may continue to be used for its life if it does not cause harmful interference to the operation of any other licensee. Any non-conforming transmitter replaced after November 1, 1991, must be replaced by a transmitter meeting the requirements of this subsection.

(c) A booster transmitting on multiple contiguous or non-contiguous channels carrying separate signals (a "broadband" booster) with an effective isotropic radiated power in excess of -9 dBW per 6 MHz channel and employing analog, digital or a combination of these modulations shall have the following characteristics:

(1) For boosters operating in the frequency range of 2.150-2.160/2 GHz, the maximum out-of-band power shall be attenuated at the upper and lower channel edges forming the band edges by at least 25 dB relative to the licensed analog peak visual carrier or digital average power level (or, when subchannels are used, the appropriately adjusted value based on upon the ratio of the channel-to-subchannel bandwidths), then linearly sloping from that level to at least 40 dB of attenuation at 0.25 MHz above and below the band edges, then linearly sloping from that level to at least 60 dB of attenuation at 3.0 MHz above and below the band edges, and attenuated at least 60 dB at all other frequencies.

(2) For boosters operating in the frequency range of 2.500-2.690 GHz, the maximum out-of-band power shall be attenuated at the upper and lower channel edges forming the band edges by at least 25 dB relative to the licensed analog peak visual carrier or digital average power level (or, when subchannels are used, the appropriately adjusted value based on upon the ratio of the channel-to-subchannel bandwidths), then linearly sloping from that level to at least 40 dB of attenuation at 0.25 MHz above and below the band edges, then linearly sloping from that level to at least 50 dB of attenuation at 3.0 MHz above and below the band edges, then linearly sloping from that level to at least 60 dB of attenuation at 20 MHz above and below the band edges, and attenuated at least 60 dB at all other frequencies.

(3) Within unoccupied channels in the frequency range of 2.500-2.690 GHz, the maximum out-of-band power shall be attenuated at the upper and lower channel edges of the unoccupied channel by at least 25 dB relative to the licensed analog peak visual carrier or digital average power level (or, when subchannels are used, the appropriately adjusted value based on upon the ratio of the channel-to-subchannel bandwidths), then linearly sloping from that level to at least 40 dB of attenuation at 0.25 MHz above and below the channel edges, then linearly sloping from that level to at least 50 dB of attenuation at 3.0 MHz above and below the channel edges, and attenuated at least 50 dB at all other unoccupied frequencies.

(d) The maximum out-of-band power of a response station using all or part of a 6 MHz channel and employing digital modulation shall be attenuated at the 6 MHz channel edges at least 38 dB relative to the maximum authorized power level of the response station, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the lower channel edge, and attenuated at least 60 dB at all other frequencies. Notwithstanding the foregoing, in situations where response stations transmit over more than one contiguous 6 MHz channel utilizing digital modulation, the maximum out-of-band power shall be attenuated at the channel edges of those combined channels at least 38 dB relative to the maximum authorized power level of the response station, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the lower edges of those combined channels, and attenuated at least 60 dB attenuation at all other frequencies. Notwithstanding any provision hereof, should harmful interference occur as a result of emissions outside the assigned channel, additional attenuation may be required.

(e) The requirements of §73.687(c)(2) will be considered to be satisfied insofar as measurements of operating power are concerned if the transmitter is equipped with instruments for determining the combined visual and aural operating power. However, licensees are expected to maintain the operating powers within the limits specified in §74.935. Measurements of the separate visual and aural operating powers must be made at sufficiently frequent intervals to insure compliance with the rules, and in no event less than once a month. However, the provisions of §73.687(c)(2) and of this subsection shall not be applicable to ITFS response stations or to low power ITFS booster stations authorized pursuant to §74.985(e).

Note 1: Compliance with the out-of-band emissions limitations shall be established in accordance with Note 1 to Section 21.908.

31. In Section 74.937, paragraphs (a) and (b) would be revised to read as follows:

§74.937 Antennas.

(a) In order to minimize the hazard of harmful interference from other stations, directive receiving antennas should be used at all receiving locations other than response station hubs. The choice of receiving antennas is left to the discretion of the licensee. However, for the purpose of interference calculations, except as set forth in §74.939, the general characteristics of the reference receiving antenna shown in Figure 1 of this section (i.e., a 0.6 meter (2 foot) parabolic reflector antenna) are

assumed to be used in accordance with the provisions of §74.903(a)(3) unless pertinent data is submitted of the actual antenna in use at the receive site. Licensees may install receiving antennas with general characteristics superior to those of the reference receive antenna. Nevertheless, should interference occur and it can be demonstrated by an applicant that the existing antenna at the receive site is inappropriate, a more suitable yet practical receiving antenna should be installed. In such cases, the modification of the receive site will be in the discretion, and will be the responsibility, of the licensee serving the site.

(b) Except as set forth in §74.931(e)(7), directive transmitting antennas shall be used whenever feasible so as to minimize interference to other licensees. The radiation pattern shall be designed to minimize radiation in directions where no reception is intended. When an ITFS station is used for point-to-point service, an appropriate directional antenna must be used.

* * * * *

32. Section 74.938 would be revised to read as follows:

§74.938 Transmission Standards.

The width of an ITFS channel is 6 MHz. However, the licensee may subchannelize its authorized bandwidth, provided that digital modulation is employed and the aggregate power does not exceed the authorized power for the channel, and may utilize all or a portion of its authorized bandwidth for ITFS response stations authorized pursuant to §74.939. The licensee may also, jointly with affected adjacent channel licensees, transmit utilizing bandwidth in excess of its authorized bandwidth, provided that digital modulation is employed, all power spectral density requirements set forth in this Part are met and the out-of-band emissions restrictions set forth in §74.936 are met at the edges of the channels employed. ITFS transmitters must be type certified by the Commission for the particular signals that will be employed in actual operation. Either the manufacturer or the licensee must obtain transmitter certification for the transmitter by filing an application for certification with appropriate information concerning the signal waveforms and measurements.

* * * * *

33. Section 74.939 would be revised in its entirety to read as follows:

§74.939 Special rules governing ITFS response stations.

(a) An ITFS response station is authorized to provide communication by voice, video and/or data signals with its associated ITFS response station hub. An ITFS response station may be operated only by the licensee of an instructional television fixed station and only at an authorized receiving location of the instructional television fixed station, by any lessee of excess capacity, or by a subscriber of any lessee of excess capacity. The specific frequency channel may be subdivided to provide a distinct operating frequency for each of more than one response station, provided that digital modulation is employed and the aggregate power does not exceed the authorized power for the channel. An ITFS response station may also transmit utilizing bandwidth in excess of that

authorized to the licensee jointly with effective adjacent channel licensees, provided that digital modulation is employed, all power spectral density requirements set fort in this Part are met and the out-of-band emission restrictions set forth in §74.936 are complied with.

(b) ITFS response stations that utilize the bands 2500-2650 MHz, 2656-2662 MHz, 2668-2674 MHz and/or 2680-2686 MHz or the 125 KHz channels identified in §74.939(f) may be installed and operated without an individual license to communicate with a response station hub authorized to an ITFS licensee under a response station hub license, provided that the conditions set forth in §74.939(f) are complied with and that ITFS response stations operating in the bands 2500-2650 MHz, 2656-2662 MHz, 2668-2674 MHz and/or 2680-2686 MHz only employ digital modulation.

(c) An application for a response station hub license shall be filed with the Commission in Washington, D.C., on FCC Form 330. Section VI of that form shall supply the following information for each response station hub:

(1) The geographic coordinates, street address, and the height of the center line of the reception antenna(s) above mean sea level for the response station hub; and

(2) A specification of:

(i) The response service area in which the applicant or its lessee proposes to install ITFS response stations to communicate with the response station hub, any regions into which the response service area will be subdivided for purposes of interference analysis, and any regional classes of response station characteristics which will be used to define the operating parameters of groups of response stations within each region for purposes of interference analysis, including:

(A) the maximum height above ground level of the transmission antenna that will be employed by any response station in the regional class and that will be used in interference analyses without the receipt of additional, site- specific authorization; and

(B) the maximum equivalent isotropic radiated power (EIRP) that will be employed by any response station in the regional class and that will be used in interference analyses; and

(C) any sectorization that will be employed, including the polarization to be employed by response stations in each sector and the geographic orientation of the sector boundaries, and that will be used in interference analyses; and

(D) the combined worst-case outer envelope plot of the patterns of all models of response station transmission antennas that will be employed by any response station in the regional class to be used in interference analyses; and

(E) the maximum number of response stations that will be operated simultaneously in each region using the characteristics of each regional class applicable to each region.

(ii) The channel plan (including any guardbands at the edges of the channel) to be used by ITFS response stations in communicating with the response station hub, including a statement as to whether the applicant will employ the same frequencies on which response stations will transmit to also transmit on a point-to-multipoint basis from an MDS station or MDS booster station; and

(3) A demonstration that:

(i) The proposed response station hub is within the protected service area of the ITFS station whose channels will be used for communications to the response station hub (for purposes of this rule, an ITFS station that is not engaged in leasing of excess capacity will be deemed to have a 35 mile radius protected service area centered at its transmitter site) or, in the case of an application for response stations to utilize one or more of the 125 kHz response channels, the response station hub is within the protected service area of the station authorized to utilize the associated channel; and

(ii) The entire proposed response service area is within the protected service area of the ITFS station whose channels will be used for communications to the response station hub, (for purposes of this rule, an ITFS station that is not engaged in leasing of excess capacity will be deemed to have a 35 mile radius protected service area centered at its transmitter site) or, in the alternative, the applicant may demonstrate that the licensee of any protected service area which is overlapped by the proposed response service area has consented to such overlap. In the case of an application for response stations to utilize one or more of the 125 kHz response channels, such demonstration shall establish that the response service area is entirely within the protected service area of the station authorized to utilize the associated 125 kHz channel, or, in the alternative, that the licensee entitled to any cochannel protected service area which is overlapped by the proposed response service area has consented to such overlap; and

(iii) The combined signals of all ITFS response stations within all response service areas and oriented to transmit towards their respective response station hubs and all cochannel ITFS stations and booster stations licensed to or applied for by the applicant will not generate a power flux density in excess of -73 dBW/m^2 (or the pro rata power spectral density equivalent based on the bandwidth actually employed in those cases where less than a 6 MHz channel is to be employed (e.g., -89.8 dBW/m^2 for 125 kHz channels or subchannels)) outside the boundaries of the applicant's protected service area, except to the extent that consents have been granted pursuant to §74.931(b)(1)(B)(ii) to an extension of the response service area beyond the boundaries of the protected service area; and

(iv) The combined signals of all ITFS response stations within all response service areas and oriented to transmit towards their respective response station hub and all cochannel ITFS stations and booster stations licensed to or applied for by the applicant will result in a desired to undesired signal ratio of at least 45 dB (or the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths)

(A) within the protected service area of any authorized or previously proposed cochannel MDS or ITFS station with center coordinates located within 160.94 km (100 miles) of the proposed response station hub,

(B) within the booster service area of any cochannel booster station entitled to such protection pursuant to §§21.913(f) or 74.985(f), or

(C) at any cochannel response station hub entitled to such protection pursuant to §§21.909(h) or 74.939(g), or, in the alternative, that the licensee of or applicant for such cochannel station or hub consents to such application; and

(v) The combined signals of all ITFS response stations within all response service areas and oriented to transmit towards their respective response station hub and all cochannel ITFS stations and booster stations licensed to or applied for by the applicant will result in a desired to undesired signal ratio of at least 0 dB (or the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths) (i) within the protected service area of any authorized or previously proposed adjacent channel MDS or ITFS station with center coordinates located within 160.94 km (100 miles) of the proposed response station hub, (ii) within the booster service area of any adjacent channel booster station entitled to such protection pursuant to §§21.913(f) or 74.985(f), or (iii) at any adjacent channel response station hub entitled to such protection pursuant to §§21.909(h) or 74.939(g), or, in the alternative, that the licensee of or applicant for such adjacent channel station or hub consents to such application; and

(vi) The combined signals of all ITFS response stations within all response service areas and oriented to transmit towards their respective response station hub and all cochannel ITFS stations and booster stations licensed to or applied for by the applicant will result in a desired to undesired signal ratio of at least 45 dB (or the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths) at any registered receive site of any authorized or previously-proposed cochannel ITFS station located within 113 km (70 miles) of the proposed response station hub, or, in the alternative, that the licensee of or applicant for such cochannel station or hub consents to such application; and

(vii) The combined signals of all ITFS response stations within all response service areas and oriented to transmit towards their respective response station hub and all cochannel ITFS stations and booster stations licensed to or applied for by the applicant will result in a desired to undesired signal ratio of at least 0 dB (or the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths) at any registered receive site of any authorized or previously-proposed adjacent channel ITFS station located within 113 km (70 miles) of the proposed response station hub, or, in the alternative, that the licensee of or applicant for such adjacent channel station or hub consents to such application.

(4) A certification that the application has been served upon

(i) the licensee of any station (including any booster station or response station hub) with a protected service area which is overlapped by the proposed response service area;

(ii) the holder of any authorization (including any booster station or response station hub license) with a protected service area that adjoins the applicant s protected service area;

(iii) every licensee of or applicant for

(A) any authorized or previously proposed incumbent MDS or ITFS station with a 56.33 km (35 miles) protected service area with center coordinates located within 160.94 km (100 miles) of the proposed response station hub, or

(B) any associated booster station or response station hub authorized to the holder of a license for a facility described in (A); and

(iv) every licensee of or applicant for any authorized or previously proposed ITFS station (including any booster station or response station hub) located within 113 km (70 miles) of the proposed response station hub

(d) Applications for response station hub licenses meeting the requirements of §74.939(c) shall be deemed minor change applications and shall cut-off applications that are filed on a subsequent day for facilities that would cause harmful electromagnetic interference to the proposed response station hubs. A response station hub shall not be entitled to protection from interference caused by facilities proposed on or prior to the day the application for the response station hub license is filed. Response stations shall not be required to protect from interference facilities proposed on or after the day the application for the response station hub license is filed.

(e) Notwithstanding the provisions of §74.912 and except as provided by §74.911(e), any petition to deny an application for a response station hub license shall be filed no later than the sixtieth (60th) day after the date of public notice announcing the filing of such application or major amendment thereto.

(f) An ITFS response station hub license establishing a response service area shall be conditioned upon compliance with the following:

(1) No ITFS response station shall be located beyond the response service area of the response station hub with which it communicates; and

(2) No ITFS response station shall operate with a transmitter output power in excess of 2 watts; and

(3) No ITFS response station shall operate with an EIRP in excess of that specified in the application for the response station hub pursuant to §74.939(c)(2)(i)(B) for the particular regional class of characteristics with which the response station is associated, and such response station shall not operate at an excess of 33 dBW EIRP (or, when subchannels or superchannels are used, the appropriately adjusted value based upon the ratio of 6 MHz to the subchannel or superchannel bandwidth) without a demonstration that no interference shall occur from that facility operating at a higher power level; and

(4) Each ITFS response station shall employ a transmission antenna oriented towards the response station hub with which the ITFS response station communicates, and such antenna shall be no less directional than the worst case outer envelope pattern specified in the application for the response station hub pursuant to §74.939(c)(2)(i)(D) for the regional class of characteristics with which the response station is associated; and

(5) The combined out-of-band emissions of all response stations using all or part of one or multiple contiguous 6 MHz channels and employing digital modulation shall comply with §74.936(c). The combined out-of-band emissions of all response stations using all or part of one or multiple contiguous 125 kHz channels shall comply with §74.939(i). However, should harmful interference occur as a result of emissions outside the assigned channel, additional attenuation may be required; and

(6) The response stations transmitting simultaneously at any time within any given region of the response service area utilized for purposes of analyzing the potential for interference by response stations shall conform to the numerical limits for each class of response station proposed in the application for the response station hub license; Notwithstanding the foregoing, the licensee of a response station hub license may alter the number of response stations of any class operating simultaneously in a given region without prior Commission authorization, provided the licensee first notifies the Commission of the altered number of response stations of such class(es) to be operated simultaneously in such region, provides the Commission with an analysis establishing that such alteration will not result in any increase in electrical interference to any existing or proposed MDS or ITFS station, booster station or response station hub or to any MDS Basic Trading Area or Partitioned Service Area authorization holder entitled to protection pursuant to §74.939(c)(3), or that the applicant or licensee of such facility has consented to such interference, and serves a copy of such notification and analysis upon each party entitled to be served pursuant to §74.939(c)(4).

(7) In the event any MDS or ITFS receive site suffers interference due to block downconverter overload, the licensee of each response service area within five miles of such receive site shall cooperate in good faith to expeditiously identify the source of the interference. Each licensee of a response station contributing to such interference shall bear the joint and several obligation to promptly remedy all interference resulting from block downconverter overload at any ITFS receive site registered prior to the submission of the application for the response station hub license or at any receive site within an MDS or ITFS protected service area applied for prior to the submission of the application for the response station hub license, regardless of whether the receive site suffering the interference was constructed prior to or after the construction of the response station(s) causing the downconverter overload; provided, however, that the licensee of the registered ITFS receive site or the MDS or ITFS protected service area must cooperate fully and in good faith with efforts by the response station hub licensee to prevent interference before constructing response stations and/or to remedy interference that may occur. In the event that more than one signal booster and/or response station hub licensee contributes to block downconverter interference at a MDS or ITFS receive site, the licensees of the contributing signal booster and/or response stations shall cooperate in good faith to promptly remedy the interference; provided, however, that any licensee satisfying its joint and several obligation to remedy all such interference shall be entitled to financial contribution from the other(s) in proportion to their contribution to the interference.

(g) See Part 17 of this chapter concerning notification to the Federal Aviation Administration of proposed antenna construction or alteration. The provisions of §§74.967 and 74.981(a)(5) of this subpart, concerning antenna painting and lighting requirements, apply to ITFS response stations as well as main ITFS stations.

(h) (1) An applicant for any new or modified MDS or ITFS station (including any booster station or response station hub) shall be required to demonstrate interference protection to a response station hub within the radio horizon of the proposed facilities. In lieu of the interference protection requirements set forth in §§21.902, 21.938(b)(2) and 74.903, such demonstration shall establish that the proposed facility will not increase the predicted power flux density of the undesired signals generated by the proposed facility and any associated primary stations, booster stations or response stations at the response station hub receiver for any sector. In lieu of the foregoing, an applicant for a new MDS or ITFS primary station license or for a new or modified response station hub or booster license may demonstrate that the new facility will not increase the noise floor at a reception antenna of the response station hub by more than 1 dB, provided that the entity submitting the application may only invoke this alternative once per response station hub reception antenna.

(2) Commencing upon the filing of an application for an MDS response station hub license and until such time as the application is dismissed or denied or, if the application is granted, a certificate of completion of construction is filed, the incumbent MDS station whose channels are being utilized shall be entitled both to interference protection pursuant to §§21.902(b)(3) and (4) and 21.938(b)(2) and to protection of the response station hub pursuant to the preceding subparagraph. Unless the application for the response station hub license specifies that the same frequencies also will be employed for digital and/or analog point-to-multipoint transmissions by MDS stations and/or MDS booster stations, upon the filing of a certificate of completion of construction for an MDS response station hub where the channels of an incumbent MDS station are being utilized as response station transmit frequencies, the incumbent MDS station whose channels are being utilized for response station transmissions shall no longer be entitled to interference protection pursuant to §§21.902(b)(3) and (4) and 21.938(b)(2) within the response service area with regard to any portion of any 6 MHz channel employed solely for response station communications. Upon the certification of completion of construction of an MDS response station hub where the channels of an incumbent MDS station are being utilized and the application for the response station hub license specifies that the same frequencies will be employed for point-to-multipoint transmissions, the incumbent MDS station whose channels are being utilized shall be entitled both to interference protection pursuant to §§21.902(b)(3) and (4) and 21.938(b)(2) and to protection of the response station hub pursuant to the preceding provisions of this subsection.

(i) ITFS response stations may operate on either all or part of a 6 MHz channel assigned a licensee, on any 125 kHz channel assigned a licensee, or on adjacent frequencies authorized to multiple licensees where such stations are operated jointly. The 125 kHz channels listed in the following table shall be assigned to the licensees of MDS and ITFS stations for use as response stations or for licensing for point-to-multipoint transmissions, in accordance with the table. The specified 125 kHz frequency channel may be subdivided to provide a distinct operating frequency for each of more than one station, may be combined with adjacent channels, or may be exchanged with the licensee of another MDS or ITFS station for use of another 125 kHz channel assigned to the other licensee.

Frequency (MHz)	Primary Channel Designation	125 kHz Channel Designation
2686.0625	A1	H4a
2686.1875	B1	H4b
2686.3125	C1	H4c
2686.4375	D1	H4d
2686.5625	E1	H4e
2686.6875	F1	H4f
2686.8125	G1	H4g
2686.9375	H1	H4h
2687.0625	A2	H4i
2687.1875	B2	H4j
2687.3125	C2	H4k
2687.4375	D2	H4l
2687.5625	E2	H4m
2687.6875	F2	H4n
2687.8125	G2	H4o
2687.9375	H2	H4p
2688.0625	A3	H4q
2688.1875	B3	H4r
2688.3125	C3	H4s
2688.4375	D3	H4t
2688.5625	E3	H4u
2688.6875	F3	H4v
2688.8125	G3	H4w
2688.9375	H3	H4x
2689.0625	A4	H4y
2689.1875	B4	H4z
2689.3125	C4	H4aa
2689.4375	D4	H4bb
2689.5625	E4	H4cc
2689.6875	F4	H4dd
2689.8125	G4	H4ee

(j) An 125 kHz wide ITFS response channel is 125 kHz wide and is centered at the assigned frequency. If amplitude modulation is used, the carrier shall not be modulated in excess of 100%. If frequency modulation is used, the deviation shall not exceed ± 25 kHz. Any emissions outside the channel shall be attenuated at the channel edges at least 60 dB 35 dB below peak output power when analog modulation is employed or 35 dB below average output power when digital modulation is employed (or, when subchannels are used, the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths). Any emissions more than 125 kHz from either channel edge, including harmonics, shall be attenuated at least 60 dB below peak output power when analog modulation is employed, or at least 60 dB below average output power when digital modulation is employed (or, when subchannels are used, the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths). Notwithstanding the foregoing, in situations where adjacent channel licensees jointly transmit over more than one channel utilizing digital modulation, the maximum out-of-band power shall be attenuated at the edges of those combined channels at least 35 dB relative to the licensed average power level of each channel. Emissions more than 125 kHz from either edge of the combined channels, including harmonics, shall be attenuated at least 60 dB below peak analog power or average digital power of each channel, as appropriate. Different types of emissions may be authorized for use on 125 kHz wide channels if the applicant describes fully

the modulation and bandwidth desired, and demonstrates that the modulation selected will cause no more interference than is permitted under this subsection. Greater attenuation may be required if interference is caused by out-of-channel emissions.

(k) The transmitter of an ITFS response station may be operated unattended. The overall performance of the ITFS response station transmitter shall be checked as often as necessary to ensure that it is functioning in accordance with the requirements of the Commission's rules. The licensee of an ITFS response station hub is responsible for the proper operation of the transmitters of associated response stations at all times. The transmitters shall be installed and protected in such manner as to prevent tampering or operation by unauthorized persons.

(l) The transmitting apparatus employed at ITFS response stations shall have received type certification in accordance with §74.952.

(m) An ITFS response station shall be operated only when engaged in communication with its associated ITFS response station hub or ITFS station, or for necessary equipment or system tests and adjustments. Radiation of an unmodulated carrier and other unnecessary transmissions are forbidden.

Note 1: For purposes of subsections (c)(3)(i), (ii), and (iii), an ITFS station that is not engaged in leasing of excess capacity will be deemed to have a 35 mile radius protected service area centered at its transmitter site.

Note 2: Calculations required under this rule shall be performed in accordance with Method For Predicting Accumulated Signal Power From a Multiplicity of Statistically-located Transmitters as published as Attachment _ to the [cite to the Report and Order adopting proposed rules].

Note 3: Compliance with the out-of-band emissions limitations shall be established in accordance with Note 1 to Section 21.908.

34. In Section 74.950, current paragraphs (a) through (e) would be deleted in their entirety and current paragraph (f) would be redesignated as paragraph (a).

35. In Section 74.951, paragraph (b) would be revised to read as follows:

§74.951 Modification of transmission systems.

* * * * *

(b) Any change in the antenna system affecting the direction of radiation, directive radiation pattern, antenna gain, or radiated power; provided, however, that a licensee may install a sectorized antenna system without prior consent if such system does not change polarization or result in an increase in radiated power by more than one dB in any direction and notice of such installation is provided to the Commission on FCC Form 330 within ten (10) days of installation.

* * * * *

36. In Section 74.961, paragraph (a) would be revised to read as follows:

§74.961 Frequency tolerance.

(a) The frequency of the visual carrier for any ITFS station or ITFS booster station authorized pursuant to §74.985(b) shall be maintained within ±1 kHz of the assigned frequency at all times when the station is in operation. ITFS booster stations authorized pursuant to §74.985(e) and ITFS response stations authorized pursuant to §74.939 shall employ transmitters with sufficient frequency stability to ensure that the emission stays within the authorized frequency block. A transmitter licensed prior to November 1, 1991, that remains at the station site initially licensed and does not comply with this paragraph may continue to be used for its life if it does not cause harmful interference to the operation of any other licensee. Any non-conforming transmitter replaced after November 1, 1991, must be replaced by a transmitter meeting the requirements of this paragraph.

* * * * *

37. Section 74.965 would be revised to read as follows.

§74.965 Posting of station license.

(a) The instrument of authorization, a clearly legible photocopy thereof, or the name, address and telephone number of the custodian of the instrument of authorization shall be available at each station and response station hub. Each authorized operator of an ITFS booster station shall post at the booster station the name, address and telephone number of the custodian of the notification filed pursuant to §74.985 if such notification is not maintained at the booster station.

(b) If an ITFS station, an ITFS booster station or an ITFS response station hub is operated unattended, the call sign and name of the licensee shall be displayed such that it may be read within the vicinity of the transmitter enclosure or antenna structure.

38. Section 74.982 would be deleted in its entirety.

39. Section 74.985 would be revised in its entirety to read as follows:

§ 74.985 Signal booster stations.

(a) Authorizations for Instructional Television Fixed Service (ITFS) booster stations may be granted to an ITFS licensee, or to a third party with a fully-executed lease agreement with an ITFS applicant or licensee in the case of booster stations authorized pursuant to §74.985(e). The eligibility requirements of §74.932 will not apply to such third-party booster station applicants. An ITFS booster station may reuse channels to repeat the signals of ITFS stations or for the origination of signals on ITFS channels except as provided for in §74.985(e), but no booster station may be authorized for the reuse of channels authorized to an ITFS station without the written consent of the

licensee of the station whose channels are reused, and such consent must be included with the booster station application. The aggregate power flux density generated by an ITFS station and all associated signal booster stations and all co-channel response stations licensed to or applied for by the applicant may not exceed -73 dBW/m² (or, when subchannels are used, the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths) at or beyond the boundaries of the protected service area of the ITFS station whose channel is being reused, as measured at locations for which there is an unobstructed signal path. For purposes of the preceding sentence and §§74.985(b)(1) and (2) and (c)(5) and (6), an ITFS station will be deemed to have a protected service area pursuant to §21.902(d) regardless of whether it is leasing excess capacity.

(b) Any ITFS licensee may secure an authorization for an ITFS signal booster that has a maximum power level in excess of -9 dBW EIRP (or, when subchannels or superchannels are used, the appropriately adjusted value based upon the ratio of 6 MHz to the subchannel or superchannel bandwidth) by submitting an application on FCC Form 330 and including, in addition to the requirements of that form:

(1) A demonstration that the proposed signal booster station site is within the protected service area, as defined in §§21.902(d) of this chapter, of the ITFS station whose channels are to be reused; and

(2) A demonstration that the booster service area is entirely within the protected service area of the ITFS station whose channels are being reused, or in the alternative, that the licensee entitled to any cochannel protected service area which is overlapped by the proposed booster service area has consented to such overlap; and

(3) A demonstration that the booster service area can be substantially served by the proposed booster without interference; and

(4) A demonstration that the aggregate power flux density of the ITFS station and all associated booster stations and co-channel response stations licensed to or applied for by the applicant does not exceed -73.0 dBW/m² (or, when subchannels are used, the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths) at or beyond the edge of the protected service area for the primary ITFS transmitter station, as defined by §21.902(d) of this chapter, whose channels are to be reused; and.

(5) In lieu of the requirements of §74.903, a demonstration that the proposed signal booster station will cause no harmful interference to co-channel or adjacent-channel, authorized or previously-proposed ITFS, MDS, or MMDS stations with protected service area center coordinates as specified in §21.902(d) or, in the case of ITFS stations without protected service areas, transmitters within 160.94 kilometers (100 miles) of the proposed booster station's transmitter site, or any ITFS or MDS response station hubs or booster stations within 160.94 kilometers (100 miles) of the proposed booster station's transmitter site. Such study shall consider the undesired signal levels generated by the proposed signal booster station, the primary station, all other licensed or previously proposed associated booster stations, and all cochannel response stations licensed to or applied for by the applicant. In the alternative, a statement from the MDS or ITFS licensee or

conditional licensee stating that it does not object to operation of the ITFS signal booster station may be submitted; and

(6) A description of the booster service area; and

(7) A demonstration that the booster service area is entirely within the protected service area of the station whose channels are being reused and can be served by the proposed booster without interference; and

(8) A certification that copies of the materials set forth in §94.985(b) have been served upon the licensee, conditional licensee or permittee of each station (including each response station hub and booster station) required to be studied pursuant to §74.985(b)(3).

(c) Notwithstanding the provisions of §74.911(c)(1), applications for booster station authorizations may be filed at any time. Notwithstanding any other provision of Part 74, applications for booster authorizations meeting the requirements of §74.985(b) shall cut-off applications that are filed on a subsequent day for facilities that would cause harmful electromagnetic interference to the proposed booster stations. A booster station shall not be entitled to protection from interference caused by facilities proposed on or prior to the day the application for the booster station authorization is filed. Booster stations shall not be required to protect from interference facilities proposed on or after the day the application for the response station hub license is filed.

(d) Notwithstanding the provisions of §74.912 and except as provided in §74.911(e), any petition to deny an application for a response station hub license shall be filed no later than the sixtieth (60th) day after the date of public notice announcing the filing of such application or major amendment thereto.

(e) A signal booster station that has a maximum power level of -9 dBW EIRP (or, when subchannels or superchannels are used, the appropriately adjusted value based upon the ratio of 6 MHz to the subchannel or superchannel bandwidth) may be installed and operated by an ITFS conditional licensee or licensee for the purpose of retransmitting the signals of the ITFS station or for originating signals. A signal booster station that has a maximum power level of -9 dBW EIRP (or, when subchannels or superchannels are used, the appropriately adjusted value based upon the ratio of 6 MHz to the subchannel or superchannel bandwidth) may be installed and operated by a third party with a fully-executed lease or consent agreement with an ITFS conditional licensee or licensee for the purpose of retransmitting the signals of the ITFS station. In either case, such installation and operation shall be subject to the condition that for sixty (60) days after installation, no objection or petition to deny is filed by an authorized co-channel or adjacent-channel ITFS or MDS station with a transmitter within 8.0 kilometers (5 miles) of the coordinates of the signal booster. An eligible party seeking to install a signal booster under this rule must, within 48 hours after installation, submit

(1) a description of the signal booster technical specifications (including an antenna envelope plot or, if the envelope plot is on file with the Commission, the make and model of the antenna,

antenna gain and azimuth), the coordinates of the booster, the height of the center of radiation above mean sea level, the street address of the signal booster, and a description of the booster service area,

(2) a demonstration that the booster service area is entirely within the protected service area of the station whose channels are being reused, or, in the alternative, that the licensee entitled to any protected service area which is overlapped by the proposed booster service area has consented to such overlap,

(3) either a certification that no Federal Aviation Administration determination of No Hazard to Air Navigation is required under Part 17 of this chapter or, if such determination is required, either:

(i) a statement of the FCC Antenna Structure Registration Number; or

(ii) if an FCC Antenna Structure Registration Number has not been assigned for the antenna structure, the filer must indicate the date the application by the antenna structure owner to registered the antenna structure was filed with the FCC in accordance with Part 17 of this chapter; (iv) a demonstration that the proposed booster service area can be substantially served by the proposed booster without interference, and (v) a certification that:

(A) The maximum power level of the signal booster transmitter does not exceed -9 dBW EIRP (or, when subchannels or superchannels are used, the appropriately adjusted value based upon the ratio of 6 MHz to the subchannel or superchannel bandwidth); and

(B) No registered receiver of an ITFS E or F channel station, constructed prior to May 26, 1983, is located within a 1 mile (1.61 km) radius of the coordinates of the booster, or in the alternative, that a consent statement has been obtained from the affected ITFS licensee; and

(C) No environmental assessment location as defined at §1.1307 of this chapter is affected by installation and/or operation of the signal booster; and

(D) Each MDS and/or ITFS station licensee (including the licensees of booster stations and response station hubs) with protected service areas or registered receivers within a 8 km (5 mile) radius of the coordinates of the booster has been given notice of its installation; and

(E) The signal booster site is within the protected service area of the ITFS MDS station whose channels are to be reused, if the signal of an MDS station is repeated; and

(F) The aggregate power flux density at or beyond the boundary edge of the protected service area of the ITFS station whose channels are to be reused and associated booster stations and co-channel response stations does not exceed -73.0 dBW/m^2 (or, when subchannels are used, the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths) at locations for which there is an unobstructed signal path and

(G) The antenna structure will extend less than 6.10 meters (20 feet) above the ground or natural formation or less than 6.10 meters (20 feet) above an existing manmade structure (other than an antenna structure); and

(H) The ITFS licensee understands and agrees that in the event harmful interference is claimed by the filing of an objection or petition to deny, the licensee must terminate operation within two (2) hours of written notification by the Commission, and must not recommence operation until receipt of written authorization to do so by the Commission.

(f) An applicant for any new or modified MDS or ITFS station (including any response station hub license or booster station) shall demonstrate compliance with the protected service area protection requirements set forth in §§21.902, 21.938 and 74.903 with respect to any previously proposed or authorized booster service area using the transmission parameters of the ITFS booster station (including EIRP, polarization(s) and antenna height). Upon the filing of a certificate of completion of construction of an ITFS booster station filed pursuant to §74.985(b) or upon the filing of an ITFS booster station notification pursuant to §74.985(e), each incumbent ITFS station whose channels are being reused by the ITFS signal booster shall no longer be entitled to interference protection pursuant to §§21.902(b)(3) and (4), 21.938(b)(2) and (3) and 74.903 within the booster service area based on the transmission parameters of the ITFS station whose channels are being reused. A booster station shall not be entitled to protection from interference caused by facilities proposed on or prior to the day the application or notification for the booster station is filed. Booster stations shall not be required to protect from interference facilities proposed on or after the day the application or notification for the response booster is filed.

(g) In the event any MDS or ITFS receive site suffers interference due to block downconverter overload, the licensee of each signal booster station operating with a power level in excess of -9 dBW EIRP (or, when subchannels or superchannels are used, the appropriately adjusted value based upon the ratio of 6 MHz to the subchannel or superchannel bandwidth) within five miles of such receive site shall cooperate in good faith to expeditiously identify the source of the interference. Each licensee of a signal booster station contributing to such interference shall bear the joint and several obligation to promptly remedy all interference resulting from block downconverter overload at any ITFS receive site registered prior to the submission of the application for the response station hub license or at any receive site within an MDS or ITFS protected service area applied for prior to the submission of the application for the response station hub license, regardless of whether the receive site suffering the interference was constructed prior to or after the construction of the response station(s) causing the downconverter overload; provided, however, that the licensee of the registered ITFS receive site or the MDS or ITFS protected service area must cooperate fully and in good faith with efforts by the signal booster station licensee to prevent interference before constructing the signal booster station and/or to remedy interference that may occur. In the event that more than one signal booster station and/or response station hub licensee contributes to block downconverter interference at a MDS or ITFS receive site, the licensees of the contributing signal booster and/or response stations shall cooperate in good faith to promptly remedy the interference; provided, however, that any licensee satisfying its joint and several obligation to remedy all such interference shall be entitled to financial contribution from the other(s) in proportion to their contribution to the interference.

APPENDIX C

Parts 1, 21 and 74 of Title 47 of the Code of Federal Regulations are proposed to be amended as follows:

PART 1 - PRACTICE AND PROCEDURE

1. Section 1.1307 would be amended by adding the following language directly following the reference to MDS stations:

MDS licensees are required to attach a label to subscriber transceiver or transverter antennas that (1) provides adequate notice regarding potential radio frequency safety hazards, *e.g.*, information regarding the safe minimum separation distance required between users and transceiver antennas; and (2) references the applicable FCC-adopted limits for radio frequency exposure specified in §1.1310 of this chapter.

1a. Section 1.1307 likewise would be amended by adding the following language directly following the reference to Part 74, Subpart I stations:

ITFS licensees are required to attach a label to subscriber transceiver or transverter antennas that (1) provides adequate notice regarding potential radio frequency safety hazards, *e.g.*, information regarding the safe minimum separation distance required between users and transceiver antennas; and (2) references the applicable FCC-adopted limits for radio frequency exposure specified in §1.1310 of this chapter.

PART 21 - DOMESTIC PUBLIC FIXED RADIO SERVICES

2. The authority citation for Part 21 continues to read as follows:

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

3. Section 21.2 would be amended by revising the definitions of "Multipoint distribution service," "Multipoint distribution service response station" and "Signal Booster Station" and by adding ~~a definition for~~ definitions for "Booster Service Area ", "Response Station Hub License ", "Response Station Hub" and "Sectorization" to read as follows:

§21.2 Definitions.

* * * * *

Booster Service Area. A geographic area to be designated by an applicant for a booster station, within which the booster station shall be entitled to protection against interference as set forth in this Part. The booster service area must be specified by the applicant so as to not overlap the booster service area of any other booster authorized to or proposed by the applicant. However, a booster