



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

Code of Federal Regulations  
Title 47, Volume 5, Parts 80 to End  
Revised as of October 1, 1999  
From the U.S. Government Printing Office via GPO Access  
CITE: 47CFR101.103

### TITLE 47--TELECOMMUNICATION

#### PART 101--FIXED MICROWAVE SERVICES--Table of Contents

##### Subpart C--Technical Standards

Sec. 101.103 Frequency coordination procedures.

- (a) Assignment of frequencies will be made only in such a manner as to facilitate the rendition of communication service on an interference-free basis in each service area. Unless otherwise indicated, each frequency available for use by stations in these services will be assigned exclusively to a single applicant in any service area. All applicants for, and licensees of, stations in these services must cooperate in the selection and use of the frequencies assigned in order to minimize interference and thereby obtain the most effective use of the authorized facilities. In the event harmful interference occurs or appears likely to occur between two or more radio systems and such interference cannot be resolved between the licensees thereof, the Commission may specify a time sharing arrangement for the stations involved or may, after notice and opportunity for hearing, require the licensees to make such changes in operating techniques or equipment as it may deem necessary to avoid such interference.
- (b) (1) Operations in the bands 31,000-31,075 MHz and 31,225-31,300 MHz licensed prior to March 11, 1997, were licensed on an unprotected basis and are subject to harmful interference from similarly licensed operations in that band.
  - (i) Operations licensed in the Local Multipoint Distribution Service and those operations licensed prior to March 11, 1997, except in the Local Television Transmission Service, operating in these bands are equally protected against harmful interference from each other.
  - (ii) In the case of operations licensed prior to March 11, 1997, except in the Local Television Transmission Service, that are licensed on a point-to-radius basis, LMDS licensees shall be subject to the protection requirement established in this section in the case of existing links operated by such licensees, and in the case of links added by such licensees in the future in accordance with the terms of their point-to-radius licenses.
  - (iii) An LMDS licensee may not initiate operations within the point-to-radius area licensed to an operator (other than an operator in the Local Television Transmission Service) prior to March 11, 1997, even if such operator has not initiated operations to the fullest extent of the license. An LMDS licensee, however, may initiate



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

- operations at the border of such operator's license area without prior coordination if the LMDS licensee's operations would not cause harmful interference to the other operator's existing operations.
- (iv) In operator (other than an operator in the Local Television Transmission Service) licensed on a point-to-radius basis prior to March 11, 1997, may add additional stations within its license area. Such operator shall coordinate with any affected LMDS licensee if its new operations might cause harmful interference to the existing operations of such LMDS licensee.
  - (v) Operations licensed prior to March 11, 1997, on a point-to-point basis may not be extended or otherwise modified through the addition of point-to-point links. Such operations shall be limited to the use of frequency pairs licensed as of March 11, 1997. Operations licensed in the Local Television Transmission Service as of March 11, 1997 may continue to operate, but such operators may not expand existing operations nor initiate new operations.
- (2) Operations in the 31,075-31,225 MHz band licensed prior to March 11, 1997, shall receive no protection against harmful interference from authorized operations in the Local Multipoint Distribution Service in that band.
- (3) Non-LMDS operations in the entire 31,000-31,300 MHz band licensed after March 11, 1997, based on applications refiled no later than June 26, 1998 are unprotected with respect to each other and subject to harmful interference from each other.
- (i) Such operations and any operations licensed prior to March 11, 1997, in the band are unprotected with respect to each other and subject to harmful interference from each other.
  - (ii) Such operations are licensed on a secondary basis to LMDS operations licensed in the band, may not cause interference to LMDS operations, and are not protected from interference from LMDS operations.
  - (iii) Such operations licensed on a point-to-point basis may not be extended or otherwise modified through the addition of point-to-point links. Such operations licensed on a point-to-radius basis may add additional stations within the licensed area.
- (b) Frequency diversity transmission will not be authorized in these services in the absence of a factual showing that the required communications cannot practically be achieved by other means. Where frequency diversity is deemed to be justified on a protection channel basis, it will be limited to one protection channel for the bands 3,700-4,200, 5,925-6,425, and 6,525-6,875 MHz, and a ratio of one protection channel for three working channels for the bands 10,550-10,680 and 10,700-11,700 MHz. In the bands 3,700-4,200, 5,925-6,425, and 6,525-6,875 MHz, no frequency diversity protection channel will be authorized unless there is a minimum of three working channels, except that where a substantial showing is made that a total of three working channels will be required within three years, a protection channel may be authorized simultaneously with the first working channel. A protection channel authorized



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

- (c) under such exception will be subject to termination if applications for the third working channel are not filed within three years of the grant date of the applications for the first working channel. Where equipment employing digital modulation techniques with cross-polarized operation on the same frequency is used, the protection channel authorized under the above conditions may be considered to consist of both polarizations of the protection frequency where such is shown to be necessary.
- (d) Frequency coordination. For each frequency authorized under this part, the following usage coordination procedures will apply:
  - (1) General requirements. Proposed frequency usage must be prior coordinated with existing licensees, permittees and applicants in the area, and other applicants with previously filed applications, whose facilities could affect or be affected by the new proposal in terms of frequency interference on active channels, applied-for channels, or channels coordinated for future growth.

*NSMA recommendation WG3.89.018*  
**(Not Applicable to PCS)**

*The text in Section 101.103 (d) (1) requires coordination to involve "existing users in the area and other applicants with previously filed applications." Missing from this list are "parties with the previously coordinated (but not yet filed) proposals." This category is important to include since coordinated proposals are considered to have interference protection.*

*NSMA recommendation WG3.89.021*  
**(Not Applicable to PCS)**

*Coordinators generally use 125 miles as the coordination distance for microwave systems operated in bands between 2 and 11 GHz, inclusive.*

*Some cases of interference have been experienced at distances in excess of 125 miles, usually involving "boresight-to-boresight" exposures. Based on this experience, some coordinators may analyze potential interference to their systems at distances greater than 125 miles, and include these reported cases in their initial responses to coordination notifications. In such cases, initial reports of potential interference at distances greater than 125 miles should be adjusted to account for OH LOSS (losses above free space).*



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

### *NSMA recommendation WG3.90.026 (Not Applicable to PCS)*

*For distribution of prior coordination notifications, use a circular coordination contour with a larger-radius sector extending 5 degrees on either side of the antenna main beam azimuth. These radii are referred to as the circular coordination distance ( $D_c$ ) and the keyhole coordination distance ( $D_k$ ).*

*Below 15 GHz,  $D_c = 125$  miles and  $D_k = 250$  miles  
Above 15 GHz,  $D_c = 80$  miles and  $D_k = 150$  miles*

Coordination must be completed prior to filing an application for regular authorization, or a major amendment to a pending application, or any major modification to a license. In coordinating frequency usage with stations in the fixed satellite service, applicants must also comply with the requirements of Sec. 101.21(f). In engineering a system or modification thereto, the applicant must, by appropriate studies and analyses, select sites, transmitters, antennas and frequencies that will avoid interference in excess of permissible levels to other users. All applicants and licensees must cooperate fully and make reasonable efforts to resolve technical problems and conflicts that may inhibit the most effective and efficient use of the radio spectrum; however, the party being coordinated with is not obligated to suggest changes or re-engineer a proposal in cases involving conflicts. Applicants should make every reasonable effort to avoid blocking the growth of systems as prior coordinated. The applicant must identify in the application all entities with which the technical proposal was coordinated. In the event that technical problems are not resolved, an explanation must be submitted with the application. Where technical problems are resolved by an agreement or operating arrangement between the parties that would require special procedures be taken to reduce the likelihood of interference in excess of permissible levels (such as the use of artificial site shielding) or would result in a reduction of quality or capacity of either system, the details thereof may be contained in the application.

- (2) Coordination procedure guidelines are as follows:
- (i) Coordination involves two separate elements: notification and response, both or either may be oral or in written form.

### *NSMA recommendation WG3.89.022*

*Section 101.103 (d) (2) (i) of the FCC Rules states that coordination notifications and responses may both be in written or verbal form.*

*When coordination notification is made verbally (i.e., via phone call), the recipient may request a written confirmation of the*



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

*coordination data for record purposes and to ensure accuracy. When so requested, initiating coordinators should provide a hard copy of the information. (In such cases and assuming there is no inconsistency in the coordination data between the verbal and written versions, the date of coordination initiation is assumed to be the earlier of (1) the date of the verbal notification, or (2) the date the written notification is received.)*

### *NSMA Recommendation WG3.91.027*

*Requests for expedited response must be clearly indicated on the cover page of the prior coordination notification. A specific response date should be provided. Providing a reason for the request is encouraged. For extremely short response periods, contact by telephone and delivery of prior coordination notifications by facsimile or electronic mail is recommended.*

To be acceptable for filing, all applications and major technical amendments must certify that coordination, including response, has been completed. The names of the licensees, permittees and applicants with coordinated proposals, applicants, permittees, and licensees with which coordination was accomplished must be specified. If such notice and/or response is oral, the party providing such notice or response must supply written documentation of the communication upon request;

(ii) Notification must include relevant technical details of the proposal. At minimum, this should include, as applicable, the following:

- Applicant's name and address.
- Transmitting station name.
- Transmitting station coordinates.
- Frequencies and polarizations to be added, changed or deleted.
- Transmitting equipment type, its stability, actual output power, emission designator, and type of modulation (loading).
- Transmitting antenna type(s), model, gain and, if required, a radiation pattern provided or certified by the manufacturer.
- Transmitting antenna center line height(s) above ground level and ground elevation above mean sea level receiving station name.
- Receiving station coordinates.
- Receiving antenna type(s), model, gain, and, if required, a radiation pattern provided or certified by the manufacturer.
- Receiving antenna center line height(s) above ground level and ground elevation above mean sea level.
- Path azimuth and distance.
- Estimated transmitter transmission line loss expressed in dB.
- Estimated receiver transmission line loss expressed in dB.



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

### *NSMA Recommendation WG3.91.027*

*Requests for expedited response must be clearly indicated on the cover page of the prior coordination notification. A specific response date should be provided. Providing a reason for the request is encouraged. For extremely short response periods, contact by telephone and delivery of prior coordination notifications by facsimile or electronic mail is recommended.*

*When so requested, initiating coordinators should provide a hard copy of the information. (In such cases and assuming there is no inconsistency in the coordination data between the verbal and written versions, the date of coordination initiation is assumed to be the earlier of (1) the data of the verbal notification, or (2) the date the written notification is received.)*

### *NSMA recommendation WG3.86.002 (Not Applicable to PCS)*

*Sections 101.103 (d) and 25.203 (c) of the FCC Rules and Regulations specify necessary coordination data for terrestrial microwave stations and satellite earth stations, respectively. In addition to the data specified in those Rules Sections, coordinators should also include the following information in their prior coordination notifications (PCNs):*

- 1. A clear explanation of the purpose of the PCN, including any information that the current PCN modifies or replaces any previously issued PCNs.*
- 2. Clear identification of the station location(s) which include the state(s) involved and the FCC station call sign(s).*

### *NSMA recommendation WG3.89.019*

*Station names in prior coordination notifications should be consistent with those used in FCC applications. The instructions for FCC applications state "If a new station is proposed, give it a name which relates the station to its location. The name of a city, town, prominent geographical feature (e.g., "Bald Mtn.", etc.) may be used."*

*When one operator has multiple stations within the same city, each stations's name should incorporate the name of the city (abbreviated*



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

*if necessary) and sufficient additional detail to allow easy identification and distinction from the other stations (e.g., DAL123MAIN). (Note that FCC applications limit station names to 11 characters.)*

### *NSMA recommendation WG3.89.020*

*Occasionally, initiating coordinators included in their prior coordination notifications (PCNs) information which is sufficient to clearly resolve cases of potential interference. Such case resolution information may include OHLOSS (losses above free space) estimates, interference shielding estimates, frequency offset adjustments, or references to clearance agreements in previous coordination correspondence.*

*When such information is provided in a PCN, it should be appropriately used by recipients in their initial analyses of potential interference. Potential interference cases which can be cleared using such information should not be reported as "unresolved" in responses to the PCN.*

### *NSMA Recommendation WG3.94.041*

*Background: Automatic Transmit Power Control (ATPC), a feature of digital microwave radio equipment that adjusts the transmitter output power based on path fading detected at the receiver, has been in wide use for several years. NSMA has adopted technical standards for ATPC in Recommendation WG18.91.032. This document was used as the basis for the ATPC recommendations which were included in TIA Bulletin 10-F. In addition, the FCC has acknowledged the use of ATPC in Emerging Technologies Docket 92-9 by changing language in the Rules that was perceived to prohibit operation of transmitters more than 3 dB below authorized power. Recommendation WG18.91.032 and Bulletin 10-F primarily address the conditions under which an ATPC system may be coordinated at a power less than the Maximum Transmit Power. This recommendation specifies the ATPC data that should be included in coordination notices and discusses the coordination process relative to ATPC systems.*

*Recommendation: Prior Coordination Notices for ATPC paths should clearly state that ATPC is to be used. The Nominal Transmit Power, Coordinated Transmit Power, and Maximum*



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

*Transmit Power as defined in WG18.91.032 should be noted on the prior coordination path data sheet. Users claiming a Coordinated Transmit Power less than the Maximum Transmit Power should send with the PCN an ATPC Attachment which specifies the ATPC operational parameters and demonstrates that the path may be expected to meet the time percentage requirements for transmit power in excess of the Coordinated Transmit Power. An example ATPC Attachment is part of WG18.91.032 and is also included here for reference. C/I calculations into an ATPC system should assume that C is based on the Maximum Transmit Power. Interference calculations from an ATPC system should be based on the Coordinated Transmit Power. However, if insufficient justification for the assumption of Coordinated Transmit Power less than Maximum Transmit Power is provided with the PCN, the party receiving the PCN may calculate the interference from the ATPC system based on the Maximum Transmit Power. In such a case, the response to the PCN should include specific reasons or calculations as to why the ATPC coordination advantage was rejected as well as documentation of the potential interference.*

*When propagation problems, perhaps other than atmospheric multipath fading, are suspected, coordinators are expected to be conservative in selecting a Coordinated Transmit Power less than the Maximum Transmit Power. Conversely, since efficient use of the spectrum is aided by specifying as low a transmit power as possible, coordinators are charged with making an effort to choose the Coordinated Transmit Power less than the Maximum Transmit Power for ATPC systems whenever conservative engineering allows. ATPC systems must be licensed at the Maximum Transmit Power. FCC EIRP restrictions must be met at the Maximum Transmit Power.*

### *NSMA recommendation WG3.86.004 (Not Applicable to PCS)*

*Often, as a result of the coordination process, a successfully completed coordination proposal may be more limited than originally described in the prior coordination notification (PCN). In such cases, a follow-up advisory should be promptly distributed to other affected coordinators so they can suitably adjust their records and provide appropriate coordination protection only for the successfully completed portion of the proposal.*





## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

*In addition, when a coordinator drops interest in an outstanding PCN or related proposal currently being protected by other coordinators, an appropriate advisory should be promptly distributed to the other affected coordinators. Note that in many cases the six-month rule (FCC Rules Section 101.103 (d) (2) (xi) may be applied by other coordinators to cease protection for a given plan; however, the six month rules does not apply to all cases and the prompt distribution of follow-up advisories permits other coordinators to maintain more up-to-date and accurate records.*

### *NSMA recommendations WG3.91.028 (Not Applicable to PCS)*

*For paths shorter than two miles, prior coordination notifications should provide footnotes with accurate path azimuths. Extra care should be taken in determining accurate site coordinates for short paths or where other microwave sites are nearby.*

Note: The position location of antenna sites shall be determined to an accuracy of no less than <plus-minus>1 second in the horizontal dimensions (latitude and longitude) and <plus-minus>1 meter in the vertical dimension (ground elevation) with respect to the National Spatial Reference System.

- (iii) For transmitters employing digital modulation techniques, the notification should clearly identify the type of modulation. Upon request, additional details of the operating characteristics of the equipment must also be furnished;
- (iv) Response to notification should be made as quickly as possible, even if no technical problems are anticipated. Any response to notification indicating potential interference must specify the technical details and must be provided to the applicant, in writing, within the 30-day notification period. Every reasonable effort should be made by all applicants, permittees and licensees to eliminate all problems and conflicts. If no response to notification is received within 30 days, the applicant will be deemed to have made reasonable efforts to coordinate and may file its application without a response;

### *NSMA recommendation WG3.91.029*

*Frequency protectors should provide complete technical details of direct interference cases in response to prior coordination notifications. The attached sample formats provide the desired level of technical detail for terrestrial and earth station cases. The A/B/C/D/ box structure showing the paths/stations causing and receiving the interference and the table showing antenna discriminations and interference margins for each polarization*



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

*combination define the standard reporting format. Presentation of the remaining data within this structure is subject to individual preference.*

- (v) The 30-day notification period is calculated from the date of receipt by the applicant, permittee, or licensee being notified. If notification is by mail, this date may be ascertained by:
  - (A) The return receipt on certified mail;
  - (B) The enclosure of a card to be dated and returned by the recipient; or
  - (C) A conservative estimate of the time required for the mail to reach its destination. In the last case, the estimated date when the 30-day period would expire should be stated in the notification.
- (vi) An expedited prior coordination period (less than 30 days) may be requested when deemed necessary by a notifying party. The coordination notice should be identified as "expedited" and the requested response date should be clearly indicated. However, circumstances preventing a timely response from the receiving party should be accommodated accordingly. It is the responsibility of the notifying party to receive written concurrence (or verbal, with written to follow) from affected parties or their coordination representatives.
- (vii) All technical problems that come to light during coordination must be resolved unless a statement is included with the application to the effect that the applicant is unable or unwilling to resolve the conflict and briefly the reason therefor;
- (viii) Where a number of technical changes become necessary for a system during the course of coordination, an attempt should be made to minimize the number of separate notifications for these changes. Where the changes are incorporated into a completely revised notice, the items that were changed from the previous notice should be identified. When changes are not numerous or complex, the party receiving the changed notification should make an effort to respond in less than 30 days. When the notifying party believes a shorter response time is reasonable and appropriate, it may be helpful for that party to so indicate in the notice and perhaps suggest a response date;
- (ix) If, after coordination is successfully completed, it is determined that a subsequent change could have no impact on some parties receiving the original notification, these parties must be notified of the change and of the coordinator's opinion that no response is required;
- (x) Applicants, permittees and licensees should supply to all other applicants, permittees and licensees within their areas of operations, the name, address and telephone number of their coordination representatives. Upon request from coordinating applicants, permittees and licensees, data and information concerning existing or proposed facilities and future growth plans in the area of interest should be furnished unless such request is unreasonable or would impose a significant burden in compilation;



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

- (xi) Parties should keep other parties with whom they are coordinating advised of changes in plans for facilities previously coordinated. If applications have not been filed 6 months after coordination was initiated, parties may assume that such frequency use is no longer desired unless a second notification has been received within 10 days of the end of the 6 month period. Renewal notifications are to be sent to all originally notified parties, even if coordination has not been successfully completed with those parties; and

*NSMA recommendation WG3.86.003  
(Not Applicable to PCS)*

*Section 101.103 (d) (xi) of the FCC Rules requires coordinators to distribute six-month renewal notices in order to assure continued coordination protection in cases in which no related FCC application has been filed. The Rules also state, in Section 101.103 (d), that "Applicants should make every reasonable effort to avoid blocking the growth of systems that are likely to need additional capacity in the foreseeable future." (Note that the limit on the protection of future plans is generally considered to be 10 years). To avoid any confusion, we believe that six-month renewals are necessary for continuing protection of all future construction plans, including new stations, new uses of frequency bands, new directions of transmission, and any equipment or service modifications which might have an effect on the interference/coordination environment.*

*One exception to this guideline may be made, and regular six-month renewals would not be necessary under the following conditions:*

- 1. The coordination protection requested involves additional (growth) channels in an existing system;*
- 2. The growth channel parameters, with the obvious exception of channel frequency, are identical to at least one channel licensed and operating on the same path;*
- 3. Absent reasonable justification for doing otherwise, each growth channel should be associated with a specific channel loading. (Note that if there are several licensed channels with multiple loadings, growth channels with different individual loadings may be protected, providing they are each assigned a particular loading.);*
- 4. The coordinator desiring continuing protection (without regular six-month renewals) must have included the specific growth channels in at least one previous PCN:*



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

*5. Within six months prior to filing an FCC application to activate a growth channel, and advisory notification should be sent to all other affected coordinators; and*

*6. If a coordinator drops interest in a growth channel, an advisory notice should be promptly distributed to other affected coordinator.*

- (xii) Any frequency reserved by a licensee for future use in the bands subject to this part must be released for use by another licensee, permittee or applicant upon a showing by the latter that it requires an additional frequency and cannot coordinate one that is not reserved for future use.
- (e) Where frequency conflicts arise between co-pending applications in the Private Operational fixed Point-to-Point Microwave, Common Carrier Fixed Point-to-Point Microwave and Local Television Transmission Services, it is the obligation of the later filing applicant to amend his application to remove the conflict, unless it can make a showing that the conflict cannot be reasonably eliminated. Where a frequency conflict is not resolved and no showing is submitted as to why the conflict cannot be resolved, the Commission may grant the first filed application and dismiss the later filed application(s) after giving the later filing applicant(s) 30 days to respond to the proposed action.
- (f) When the proposed facilities are to be operated in the band 12,500-12,700 MHz, applications must also follow the procedures in Sec. 101.21 and the technical standards and requirements of part 25 of this chapter as regards licensees in the Communication- Satellite Service.
- (g) Licensees operating in Basic Trading Areas authorized in the Local Multipoint Distribution Service.
- (1) When the transmitting facilities in a Basic Trading Area (BTA) are to be operated in the bands 27,500-28,350 MHz; 29,100-29,250 MHz; and 31,000-31,300 MHz and the facilities are located within 20 kilometers of the boundaries of a BTA, each licensee must complete the frequency coordination process of paragraph (d)(2) of this section with respect to neighboring BTA licensees that may be affected by its operations prior to initiating service. In addition, all licensed transmitting facilities operating in the bands 31,000-31,075 MHz and 31,225-31,300 MHz and located within 20 kilometers of neighboring facilities must complete the frequency coordination process of paragraph (d)(2) of this section with respect to such authorized operations before initiating service.
- (2) Response to notification should be made as quickly as possible, even if no technical problems are anticipated. Any response to notification indicating potential interference must specify the technical details and must be provided to the applicant, either electronically or in writing, within the 30-day notification period. Every reasonable effort should be made by all licensees to eliminate all problems and conflicts. If no response to notification is received within 30 days, the licensee will be deemed to have made reasonable efforts to coordinate and commence operation without a response. The



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

beginning of the 30-day period is determined pursuant to paragraph (d)(2)(v) of this section.

- (h) Special requirements for operations in the band 29,100-29,250 MHz.
  - (1) (i) Local Multipoint Distribution Service (LMDS) receive stations operating on frequencies in the 29,100-29,250 MHz band within a radius of 75 nautical miles of the geographic coordinates provided by a non-GSO-MSS licensee pursuant to Sec. 101.113(c)(2) or (c)(3)(i) (the "feeder link earth station complex protection zone") shall accept any interference caused to them by such earth station complexes and shall not claim protection from such earth station complexes.
  - (ii) LMDS licensees operating on frequencies in the 29,100-29,250 MHz band outside a feeder link earth station complex protection zone shall cooperate fully and make reasonable efforts to resolve technical problems with the non-GSO MSS licensee to the extent that transmissions from the non-GSO MSS operator's feeder link earth station complex interfere with an LMDS receive station.
- (2) No more than 15 days after the release of a public notice announcing the commencement of LMDS auctions, feeder link earth station complexes to be licensed pursuant to Sec. 25.257 of this chapter shall be specified by a set of geographic coordinates in accordance with the following requirements: no feeder link earth station complex may be located in the top eight (8) metropolitan statistical areas (MSAs), ranked by population, as defined by the Office of Management and Budget as of June 1993, using estimated populations as of December 1992; two (2) complexes may be located in MSAs 9 through 25, one of which must be Phoenix, AZ (for a complex at Chandler, AZ); two (2) complexes may be located in MSAs 26 to 50; three (3) complexes may be located in MSAs 51 to 100, one of which must be Honolulu, Hawaii (for a complex at Waimea); and the three (3) remaining complexes must be located at least 75 nautical miles from the borders of the 100 largest MSAs or in any MSA not included in the 100 largest MSAs. Any location allotted for one range of MSAs may be taken from an MSA below that range.
- (3) (i) Any non-GSO MSS licensee may at any time specify sets of geographic coordinates for feeder link earth station complexes with each earth station contained therein to be located at least 75 nautical miles from the border of the 100 largest MSAs.
- (ii) For purposes of paragraph (h)(3)(i) of this section, non-GSO MSS feeder link earth station complexes shall be entitled to accommodation only if the affected non-GSO MSS licensee preapplies to the Commission for a feeder link earth station complex or certifies to the Commission within sixty days of receiving a copy of an LMDS application that it intends to file an application for a feeder link earth station complex within six months of the date of receipt of the LMDS application.
- (iv) If said non-GSO MSS licensee application is filed later than six months after certification of the Commission, the LMDS and non-GSO MSS entities shall still cooperate fully and make reasonable efforts to resolve technical problems, but the
- (v)



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

- (vi) LMDS licensee shall not be obligated to re-engineer its proposal or make changes to its system.
- (4) LMDS licensees or applicants proposing to operate hub stations on frequencies in the 29,100-29,250 MHz band at locations outside of the 100 largest MSAs or within a distance of 150 nautical miles from a set of geographic coordinates specified under paragraphs (h)(2) or (h)(3)(i) of this section shall serve copies of their applications on all non-GSO MSS applicants, permittees or licensees meeting the criteria specified in Sec. 25.257(a). Non-GSO MSS licensees or applicants shall serve copies of their feeder link earth station applications, after the LMDS auction, on any LMDS applicant or licensee within a distance of 150 nautical miles from the geographic coordinates that it specified under Sec. 101.113(c)(2) or (c)(3)(i). Any necessary coordination shall commence upon notification by the party receiving an application to the party who filed the application. The results of any such coordination shall be reported to the Commission within sixty days. The non-GSO MSS earth station licensee shall also provide all such LMDS licensees with a copy of its channel plan.
- (1) When the licensed facilities are to be operated in the band 38,600 MHz to 40,000 MHz and the facilities are located within 16 kilometers of the boundaries of an Economic Area, each licensee must complete the frequency coordination process of subsection 101.103(d) with respect to neighboring EA licensees and existing licensees within its EA service area that may be affected by its operation prior to initiating service. In addition to the technical parameters listed in subsection 101.103(d), the coordinating licensee must also provide potentially affected parties technical information related to its subchannelization plan and system geometry.
- (2) Response to notification should be made as quickly as possible, even if no technical problems are anticipated. Any response to notification indicating potential interference must specify the technical details and must be provided to the licensee, either electronically or in writing, within 10 days of notification. Every reasonable effort should be made by all licensees to eliminate all problems and conflicts. If no response to notification is received within 10 days, the licensee will be deemed to have made reasonable efforts to coordinate and may commence operation without a response. The beginning of the 10-day period is determined pursuant to Sec. 101.103(d)(v).

[61 FR 26677, May 28, 1996, as amended at 62 FR 23165, Apr. 29, 1997; 63 FR 6105, Feb. 6, 1998; 63 FR 9448, Feb. 25, 1998; 63 FR 14039, Mar. 24, 1998; 63 FR 68983, Dec. 14, 1998; 64 FR 45893, Aug. 23, 1999]

Effective Date Note: At 64 FR 45893, Aug. 23, 1999, Sec. 101.103 was amended by revising paragraph (i)(1), effective Oct. 22, 1999. For the convenience of the user, the superseded text is set forth as follows:

Sec. 101.103 Frequency coordination procedures.



## PART 101 AND NSMA FREQUENCY COORDINATION PROCEDURES

- (1) When the licensed facilities are to be operated in the band 38,600 MHz to 40,000 MHz and the facilities are located within 16 kilometers of the boundaries of a Basic Trading Area, each licensee must complete the frequency coordination process of Sec. 101.103(d) with respect to neighboring BTA licensees and existing licensees within its BTA service area that may be affected by its operation prior to initiating service. In addition to the technical parameters listed in Sec. 101.103(d), the coordinating licensee must also provide potentially affected parties technical information related to its subchannelization plan and system geometry.