FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1, 2, 27, and 97

[GN Docket No. 96–228; FCC 97–50]

The Wireless Communications Service (''WCS'')

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: On February 19, 1997, the Federal Communications Commission (''Commission'') adopted a Report and Order establishing rules and policies for a new Wireless Communications Service (''WCS'') in the 2305–2320 and 2345–2360 MHz bands. This action is being taken pursuant to the Omnibus Consolidated Appropriations Act, 1997. The effect of this action is to make thirty megahertz of spectrum available for the provision of fixed, mobile, and radiolocation services, and satellite Digital Audio Radio Services.

EFFECTIVE DATE: March 3, 1997.

FOR FURTHER INFORMATION CONTACT: Matthew Moses or Josh Roland, Wireless Telecommunications Bureau, (202) 418–0660.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order in GN Docket No. 96–228. The complete Report and Order is available for inspection and copying during normal business hours in the FCC reference Center (Room 239), 1919 M Street, N.W., Washington, D.C., and also may be purchased from the Commission's copy contractor, International Transcription Service, (202) 857–3800, 2100 M Street, N.W., Washington, D.C. 20037. The complete Report and Order is also available on the Commission's Internet home page (http://www.fcc.gov).

Summary of the Report and Order

1. In this *Report and Order,* the Commission fulfills the Congressional mandate expressed in section 3001 of the Omnibus Consolidated Appropriations Act for 1997, Public Law 104–208, 110 Stat. 3009 (1996) (''Appropriations Act''), to reallocate and assign the use of the frequencies at 2305–2320 and 2345–2360 MHz. The Commission considers the proposals set forth in the *Notice of Proposed Rule Making* concerning amendment of the Commission's rules to establish the WCS. *See Amendment of the Commission's Rules To Establish Part 27, the Wireless Communications Service,* GN Docket No. 96–228, *Notice of Proposed Rule Making,* FCC 96–441, 61 FR 59048 (November 20, 1996) (''*NPRM*'').

A. Licensing Plan for WCS

i. Permitted Services

2. In the *NPRM,* the Commission concluded that the Appropriations Act's reallocation directive means that the Commission may allocate the 2305–2320 and 2345–2360 MHz bands to any or all radio services contained in the International Table of Frequency Allocations applicable to the United States. The Commission proposed to allocate this spectrum to the fixed, mobile, and radiolocation services on a primary basis, which are all the services authorized on a primary basis for these entire bands in the International Table. The Commission also proposed to retain the current primary audio broadcasting-satellite allocation that exists in 45 of the 50 MHz of these bands (2310–2320 and 2345–2360 MHz). The Commission did not propose to change the Amateur Radio Service secondary allocation of the 2300–2310 MHz band, nor the authorization for the 2310–2360 MHz band to be used on a secondary basis by aeronautical telemetry operations.

3. The Commission noted that in its Satellite DARS *NPRM* it had requested comment on whether it should delay issuing licenses for DARS in the 2310–2320 MHz portion of the DARS allocated spectrum due to the number and type of Canadian fixed service facilities in that band. *See Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310–2360 MHz Frequency Band,* IB Docket No. 95–91, *Notice of Proposed Rule Making,* 11 FCC Rcd 1, 60 FR 35166 (July 6, 1996) (''*Satellite DARS NPRM*''). The Commission also noted that in February 1996, it had informed DARS applicants that previously unknown additional Canadian operations existed in the 2310–2360 MHz band that particularly impacted potential use of the 2345–2360 MHz portion of the band for DARS. Accordingly, the Commission requested comment on the feasibility of satellite DARS in parts of the 2305–2320 and 2345–2360 MHz bands.

4. The Commission concludes that under the totality of circumstances presented, the 2310–2320 and 2345–2360 MHz bands will be allocated on a primary basis for fixed, mobile, radiolocation, and broadcasting-satellite (sound) services without further designations. The 2305–2310 MHz band will be allocated on a primary basis for fixed, mobile except aeronautical mobile, and radiolocation services. WCS licensees themselves will determine the specific services they will provide within their assigned spectrum and geographic areas. The services that can be provided, however, will be subject to specific technical rules we adopt *infra* to prevent interference to other services. The Commission emphasizes that with the current state of technology there is a substantial risk that these rules will severely limit, if not preclude, most mobile and mobile radiolocation uses. Fixed uses will be less severely affected, but still will require equipment that will meet technical standards higher than those used for similar purposes on comparable bands, and therefore may be more costly.

5. The Commission believes that in this instance a flexible use allocation serves the public interest. Permitting a broad range of services to be provided on this spectrum will permit the development and deployment of new telecommunications services and products to consumers. Moreover, WCS licensees will not be constrained to a single use of this spectrum and, therefore, may offer a mix of services and technologies to their customers.

6. The Commission recognizes the concerns raised by commenters about the general application of flexible allocations, and it is our intent to address those concerns fully in future proceedings. In this regard, the Commission emphasizes that its decision in this instance to adopt a broadly defined service for this spectrum should not be interpreted as a finding on the merits of flexibility as general allocation policy or prejudging the merits of flexibility in any other proceeding before us. Rather, the Commission's decision here is based on the totality of the circumstances and facts particular to this proceeding, not the least of which is the short time mandated by Congress to bring this spectrum to auction. Importantly, in this particular instance the record does not convincingly demonstrate how this spectrum should be distributed among particular uses in a manner that would provide maximum benefit to the public. Specific services advocated by commenters span a wide range of potential uses, including interactive, high-speed, broadband data services, such as wireless Internet access; return links for interactive cable and broadcasting service; mobile data; satellite DARS; fixed terrestrial use; new and innovative services; radiolocation; educational applications; and wireless local loop. While individual commenters advocate specific allocations for one or more of these uses, the Commission has no clear basis in the current record to prefer some uses

over others. Thus, limiting the use as some have suggested would risk precluding potentially beneficial services.

7. The Commission finds that allocating this spectrum for fixed, mobile, radiolocation, and audio broadcasting-satellite services is consistent with the international agreements governing this spectrum, the Appropriations Act, the Communications Act, and Commission precedent. The Commission notes that the Appropriations Act specifically directs the Commission to reallocate the WCS frequencies to ''wireless services that are consistent with international agreements concerning spectrum allocations.'' *See* Appropriations Act, section 3001(a)(1). Nothing in this provision or its legislative history restricts the Commission's authority to assign or allocate this spectrum to more than one permissible use. Additionally, the Commission's allocation to more than one service is consistent with the Commission's obligations under the Communications Act. Section 303 of the Communications Act does not restrict the Commission's discretion to prescribe the nature of the service to be rendered over radio frequencies or its authority to allocate frequencies to the various classes of stations or assign spectrum to stations for more than one permissible use. With respect to allocation decisions, the courts have accorded ''substantial deference'' to Commission determinations.

8. Commission precedent also supports the permissibility of allocating spectrum in a manner that allows for a broad range of uses. The Commission noted in the *NPRM* that the Commission took this approach in establishing GWCS in August of 1995, where it concluded that authorizing a wide variety of services bounded only by international allocations comported with its statutory authority and served the public interest by fostering the provision of a mix of services. Because GWCS licenses have yet to be auctioned, the evidence regarding the benefits of having allocated that spectrum to all uses permitted by the Commission's international obligations is inconclusive.

9. The Commission continues to believe that such broad allocations are permitted under the Communications Act, and the Commission notes that it also recently permitted CMRS licensees to provide fixed and mobile services. *See Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services,* WT Docket No. 96–6, *First Report and Order,* 11 FCC Rcd 8965, 61 FR 43721 (August 26, 1996). The action the Commission takes here is consistent with this precedent. The Commission notes also that its service designation decision is not so broad as to allow use of the WCS frequencies for any purpose whatsoever. For example, the international allocation for part of this spectrum is for audio broadcast satellite services, and therefore satellite services will be limited to this type of satellite services.

10. The Commission disagrees specifically with those commenters who assert that allocating these frequencies for fixed, mobile, radiolocation and audio broadcasting-satellite services is an impermissible allocation by auction or otherwise inconsistent with Section 309(j). The allocation decision the Commission makes in this proceeding is based on the Commission's finding that under the circumstances presented, including the statutory deadline and the lack of a record that supports a specific allocation, this allocation to fixed, mobile, radiolocation, and audio broadcasting-satellite services comports with the public interest and with the Commission's statutory authority. Thus, the Commission's decision to allocate this spectrum in this manner is unrelated to its decision to award WCS licenses through competitive bidding.

11. In addition, the Commission disagrees with those commenters' arguments that by adopting its proposal the Commission is impermissibly delegating its authority to allocate spectrum and set technical rules to other parties. The allocation the Commission makes here is not entirely open-ended, and auction winners will be subject to strict technical rules that are necessary to prevent interference to other services and which also will likely limit the actual services they may be able to offer. As discussed *infra,* these technical rules are necessary to prevent interference. Therefore, the Commission has not delegated to private parties its responsibility to allocate spectrum and adopt appropriate technical standards.

12. The Commission also agrees with commenters such as Lucent, Motorola, Nortel and CTIA who argue that economies of scale in equipment supply are important and recognize that our decision to adopt a flexible allocation may make achieving those economies of scale more difficult. However, the Commission has taken several steps that it hopes will assist licensees in achieving economies of scale. For example, the Commission has established relatively large geographic service areas and spectrum block sizes. The Commission also is adopting licensing and auction rules designed to facilitate geographic area and spectrum aggregations that may foster economies of scale and, in developing their bidding and aggregation strategies, bidders can consider the benefits of such economies. The Commission believes that the allocation and service rules adopted herein comply with all legal requirements and, considering the totality of the circumstances, serve the public interest.

13. The Commission does not believe that the public interest will be served by prohibiting use of this spectrum for CMRS. It has been the Commission's consistent policy to actively seek to increase competition in telecommunications markets, and its decision here is consistent with that policy. Indeed, in the Omnibus Budget Reconciliation Act of 1993, Public Law 103–66, Congress ordered the transfer of a large amount of government spectrum to the Commission's jurisdiction for nongovernmental use. CMRS licensees have no reasonable basis to expect that the Commission would limit the possibility of further entry by withholding spectrum or by unnecessarily restricting the permissible uses of newly allocated spectrum. However, the Commission notes that, given the out-of-band emission limits it adopt for WCS, technology will likely severely limit, if not preclude, most mobile services on this spectrum, at least in the near term.

14. Some commenters express concern with difficulties in controlling interference. The Commission is responding to this concern by setting specific limits on field strength at the geographic boundaries between licensees and on emissions outside the assigned spectrum blocks. While the Commission recognizes that different system designs have different sensitivities to interference and cause different types and degrees of interference, the Commission believes that these limits provide a reasonable degree of predictability as to the magnitude of interfering signals one can expect from adjacent areas and spectrum blocks. However, the Commission recognizes that these out-of-band and out-of-area power limits do not by themselves ensure interference-free operation. They control primary factors that determine the amount of interference a licensee can expect from neighboring areas and blocks, but there are many other factors that affect interference that they do not control and that are not under the receiver owner's direct control. For example, the level of interference caused to a licensee's receivers from transmitters in an adjacent spectrum block may also

depend on the number of such transmitters, their location relative to the receivers, their antenna directivity and polarization, their duty cycle, and other factors. Since these factors are not regulated by the Commission, they create uncertainty about the amount of interference a licensee may receive. Licensees can reduce this uncertainty by coordinating with their neighbors, and the Commission encourages them to do so. They also can reduce the risk of interference by properly designing and engineering their receiving systems and by using technologies that reduce their receivers' susceptibility to unwanted signals. Also, bidders can reduce their exposure to interfering signals from neighboring spectrum blocks or areas by aggregating adjoining licenses in the auction or through post-auction transactions. But again the Commission emphasizes that interference-free operation is not assured by the Commission's limits. Each WCS licensee must ultimately assume responsibility for protecting its own receiving system from interference from transmitters in adjoining blocks and areas that meet the Commission's limits, and applicants should understand this before they bid for these licenses.

15. Finally, in the *NPRM*, the Commission proposed to permit amateurs to continue to use the 2305–2310 MHz band on a secondary basis. The Commission also proposed to permit continued flight test and vehicle launch use of the 2310–2320 and 2345–2360 MHz bands on a secondary basis. The Commission is adopting these proposals. The effect of this action is that amateurs and aeronautical telemetry operations will be able to continue to use these bands so long as these operations do not interfere with WCS service. In addition, the Commission updates and clarifies the frequency sharing requirements for amateur use of the 2300–2310 MHz and adjacent bands. The Commission also clarifies that footnotes US276 and US339 permit the use of various frequencies for telemetering and associated telecommand operations of launch vehicles ''on a co-equal basis by Government and non-Government stations.'' With respect to Primosphere's request that all flight test operations be precluded from the WCS bands, the Commission finds no basis for precluding such operations on a secondary basis. The Commission makes clear that if secondary flight test operations cause harmful interference to WCS operations, they must immediately either correct the problem or cease operations. If such operations prove to be a problem, however, the Commission may re-evaluate this issue in the future.

ii. Spectrum for Each License

16. In the *NPRM*, the Commission requested comment on the appropriate amount of spectrum to be provided for each WCS license at 2.3 GHz. The Commission specifically requested comment on whether 5, 10, 15 or 30 MHz is the most suitable amount. The Commission noted that 5 MHz bandwidths would be sufficient for paging, radiolocation, dispatch, or point-to-point backbone operations. The Commission also observed that larger bandwidths, such as 10 to 15 MHz, would allow more direct competition with existing fixed and mobile service providers and may also better support some multi-channel satellite DARS. The Commission also asked for comment on whether a single 30 MHz license would offer the most effective approach for providing new two-way fixed or point-to-multipoint uses, such as interconnection with the Internet and other digital network services. Finally, the Commission requested comment on what size spectrum block could best support, in part or fully, the provision of fixed local loop services.

17. The Commission also sought comment on whether the WCS spectrum should be assigned on a paired or unpaired basis. Alternatively, the Commission requested comment on an approach where spectrum bandwidths or pairing of the spectrum are determined through the competitive bidding process. The Commission noted that the 30 MHz of spectrum could be divided into 5 MHz blocks and the amount of spectrum and the location of the spectrum (*i.e.*, contiguous or paired) for each WCS licensee could be determined through the auction process. The Commission further invited commenting parties to suggest additional alternatives for both the amount of spectrum and the size of service areas for WCS licensees. The Commission noted that the Appropriations Act requires that we conclude initial licensing of this spectrum and the collection of all bidding proceeds no later than September 30, 1997. The Commission stated its belief that licensing the WCS spectrum for service to large areas, with relatively few licenses to be awarded, would speed the WCS licensing process and the collection of bidding proceeds, consistent with the requirements of the Appropriations Act. Whatever initial licensing approach is chosen for WCS, the Commission proposed to permit spectrum and service area aggregation through the auction process, *e.g.*, the Commission would permit parties to bid for more than one license in each geographic area and for multiple areas.

18. The Commission observes that the commenting parties generally support either 5 MHz unpaired channel blocks or 10 MHz paired channel blocks, with the vast majority finding that at least 10 MHz is needed to provide certain WCS services in an efficient and competitive manner. The Commission notes, however, that the potential uses of the WCS spectrum will be greatly affected by the out-of-band emission limits, discussed in Section III.D.7 *infra*, needed to protect satellite DARS reception in the 2320–2345 MHz band. In particular, these limits will have the greatest impact on the portion of the WCS spectrum immediately adjacent to the satellite DARS band, namely, the WCS spectrum at 2315–2320 MHz and 2345–2350 MHz. In order to account for this effect in light of the overall record of this proceeding, and to minimize its impact on WCS operations generally, the Commission finds that WCS should be licensed initially as two 10 MHz channel blocks (with 5 MHz of this spectrum from the lower band paired with 5 MHz from the upper band) plus two 5 MHz blocks (those immediately adjacent to the satellite DARS spectrum). The Commission believes that this channelization will permit WCS licensees to offer a wide variety of services. For example, the record suggests that the 10 MHz channel blocks represent the minimum amount of spectrum needed to support certain data and wireless local loop services, including wireless Internet access. In addition, the Commission believes that providing for 10 MHz of spectrum on a paired basis would allow for the introduction of both one-way and two-way services and would facilitate the implementation of a variety of technologies. In the spectrum adjacent to the satellite DARS band, however, the Commission believes that WCS mobile operations may be prohibitively expensive and technologically infeasible for a substantial period of time. Also, the narrow (*i.e.*, 30 MHz) transmit and receive separation between the 2315–2320 MHz and 2345–2350 MHz bands would substantially increase the cost of equipment employing traditional frequency division duplex technology if pairing of these blocks were required. By making this spectrum available initially to WCS licensees as two 5 MHz unpaired channel blocks, the spectrum may have increased utility for satellite DARS and a variety of WCS fixed operations, especially those employing time division duplex technology. Also,

the Commission will not preclude WCS licensees from pairing this spectrum on their own initiative, whether through submission of winning bids for each block at auction or through spectrum aggregation in the aftermarket. Another advantage of this overall initial licensing approach is that the offering of only four licenses in each service area will allow the WCS auction to be completed within the timetable contemplated by the Appropriations Act. In this respect, the Commission believes that this licensing plan is superior to other options suggested by the commenters that would involve greater licensing complexity and probably greater delay. The initial channel blocks the Commission has selected are shown in the Table below.

Channel block	Frequency range
A	2305–2310 and 2350–2355 MHz.
B	2310–2315 and 2355–2360 MHz.
C	2315–2320 MHz.
D	2345–2350 MHz

19. As discussed, *infra*, the Commission also is allowing for spectrum aggregation and disaggregation, without restriction, so that parties, for example, desiring to employ technology that requires unpaired spectrum or asymmetrically paired spectrum can either disaggregate the channels initially offered or purchase additional needed amounts of spectrum in the after-market. In addition, applicants may bid on all four channel blocks in a service area and, if successful, render the type of services addressed by those commenters supporting the licensing of WCS spectrum in a single 30 MHz block. Thus, the initial offering of WCS spectrum in 5 MHz or 10 MHz blocks does not preclude the offering of services which might require a greater amount of spectrum. Further, the disaggregation flexibility afforded licensees potentially allows provision of WCS services which require less spectrum than contained in the initial blocks. In sum, initially licensing the WCS spectrum according to the channel block plan identified above and allowing for spectrum aggregation and disaggregation will permit a wide variety of applicants to provide services and satisfy the requirements of the Appropriations Act. The Commission also believes that providing for four blocks, along with our spectrum disaggregation rules, will promote the objectives of Section 309(j)(4)(C) of the Communications Act by providing for distribution of licenses and services among geographic areas and providing greater opportunity for a wide variety of applicants, including small businesses and other designated entities, than would be possible under a single 30 MHz block plan.

iii. Licensed Service Areas

20. In deciding on the appropriate service areas size for WCS licenses, the Commission must balance several factors. The Commission wishes to encourage the rapid deployment of new telecommunications technologies and services on WCS spectrum; thus, the Commission must assess the use or uses to which this spectrum is likely to be put and determine the geographic scope that would best facilitate rapid deployment thereof. In addition, the Commission believes that because this spectrum has not heretofore been used to provide commercial services and no equipment has yet been developed for use in this band, consumers would benefit if the WCS band plan enables equipment manufacturers to realize economies of scale that will translate to lower equipment costs to service providers. The Commission also recognizes that the Appropriations Act directed it to ''assign the use of (WCS) frequencies by competitive bidding pursuant to section 309(j).'' Appropriations Act, section 3001(a)(2). Section 309(j) of the Communications Act includes as objectives for competitive bidding the avoidance of excessive concentration of licenses and the dissemination of licenses among a wide variety of applicants. *See* 47 U.S.C. 309(j)(3)(B). In addition, the Commission is mindful of our statutory obligation to conduct the auction for WCS licenses to ensure that all proceeds are deposited by September 30, 1997, and of our experience in previous auctions, which has shown that simultaneous, multiple round auctions for a larger number of licenses are more complex and take longer to complete than similar auctions involving fewer licenses. Finally, the Commission notes that aggregation of both spectrum and service areas through the auction process has proven to be an effective method of allowing bidders to acquire the right amount of spectrum for their business needs.

21. Balancing the various factors noted above, the Commission concludes that WCS will be licensed in two ways. First, with respect to the C and D blocks, WCS will be licensed on the basis of regional areas similar to those used in our narrowband PCS rules. In WCS, however, the Commission will define the regions by aggregating EAs in the continental United States into 6 larger groupings. The Commission will refer to these service areas as Regional Economic Area Groupings (REAGs). In addition, consistent with the Commission's approach in other services, the Commission will create separate REAGs covering the five U.S. possessions, as follows: Guam and the Northern Mariana Islands (REAG # 9), Puerto Rico and the U.S. Virgin Islands (REAG # 10) and American Samoa (REAG # 11), as well as separate service areas for Alaska (REAG # 7) and Hawaii (REAG # 8). As discussed more fully *infra*, the Commission also will create a service area in the Gulf of Mexico (REAG # 12). Second, the A and B blocks will be licensed in smaller areas, by aggregating EAs into 46 areas (to be called Major Economic Areas, or MEAs) in the continental United States and an additional 6 areas covering Alaska (MEA # 47); Hawaii (MEA # 48); Guam and the Northern Mariana Islands (MEA # 49); Puerto Rico and the U.S. Virgin Islands (MEA # 50); American Samoa (MEA # 51); and the Gulf of Mexico (MEA # 52). The Commission believes that this licensing scheme satisfies the various and often conflicting positions raised by the commenters and will best accommodate our objectives under 309(j) of the Communications Act.

22. Specifically, the larger WCS license areas that the Commission will provide for in the C and D blocks will accommodate those commenters who argue that large areas will (1) encourage the rapid development and deployment of innovative service; (2) facilitate interoperability and the setting of standards; (3) allow for economies of scale that will encourage the development of low cost equipment; and (4) facilitate provision of satellite DARS services. Many commenters in this proceeding point out that WCS spectrum can be used effectively to provide wireless local loop, broadband data services and DARS services. At least with respect to these services, there may be significant economic efficiencies that could be realized—to the ultimate benefit of consumers—if these services were to be provided with nationwide scope. Licensing the C and D blocks in WCS on a REAG basis may facilitate aggregation of service areas and speed implementation of these new services.

23. In addition, a number of commenters point out that ensuring technical coordination and minimizing interference across geographic areas is very difficult when the exact nature of the services to be provided is unknown and the spectrum may be used to provide a variety of service offerings. The larger service areas in the C and D

blocks will speed and simplify the process of interference coordination along geographic boundaries, as well as minimize transaction costs and disputes arising from interference, and facilitate implementation of services that would require roaming capabilities and easy interoperability. In addition, because equipment currently is not available for use in this band, the larger service areas in the C and D blocks also should enable manufacturers to achieve greater economies of scale in production of equipment, thus reducing its per-unit cost and allowing more rapid deployment of services to the ultimate benefit of consumers.

24. While the Commission is mindful of the desire of some parties to have large licenses, the Commission also agrees with commenters that contend that smaller businesses will have more difficulty competing in the WCS auction for licenses in the large regions. In this regard, the Commission believes that the creation of smaller MEAs in the A and B blocks (along with the large bidding credits provided for small businesses, *see infra*), will provide greater opportunities for smaller businesses to compete in an auction and participate in the provision of WCS services. The Commission further notes that, consistent with views of some commenters, these smaller service areas will: (1) Enable a larger number of entities to participate in the provision of services and result in increased competition; (2) encourage a more diverse group of service providers due to the lower costs of participating in the auction; and (3) result in broader flexibility in service offerings by WCS licensees. The Commission also believes that these smaller service areas will encourage efficiencies by making it easy for a bidder to acquire licenses for only as much area as required for its prospective service.

25. The Commission notes that some commenters support even smaller BTAs and MSAs/RSAs to facilitate participation in the WCS service by small businesses. The Commission finds that service areas based on such smaller areas might compromise its ability to complete the WCS auction within the statutorily mandated time frame. In any event, the Commission notes that in addition to the large bidding credits offered to small businesses, our provisions for partitioning and disaggregation (*see infra*) should work to provide significant opportunities to smaller businesses to participate in the provision of WCS services.

26. As noted above, two commenters, SOSCO and PetroCom, advocate licensing the Gulf of Mexico as a separate service area to help meet the growing communications needs of petroleum and natural gas providers in the area. In light of those requests, the Commission designates a separate REAG and MEA covering the Gulf of Mexico. The Commission determines that land-based license regions abutting the Gulf of Mexico will extend to the limit of the territorial waters of the United States in the Gulf, which is the maritime zone that extends approximately twelve nautical miles from the U.S. baseline. Beyond that line of demarcation, the Commission will create the Gulf of Mexico REAG and MEA, which will extend from that line outward to the broadest geographic limits consistent with international agreements (*see* maps at Appendices C and D of the *Report and Order*). The limits and coordination of signal strengths at the boundaries of the service areas meeting in the Gulf region will be the same as those that will apply for all service areas.

27. Finally, the Commission notes that several commenters argue that their suggested WCS licensed service area sizes will increase auction revenues. The Commission wishes to make clear that, consistent with section 309(j)(7)(A) of the Communications Act, the Commission has considered the communications needs of potential service providers and the American public in developing these service areas. The Commission has not considered anticipated auction revenue.

B. Use of Competitive Bidding

28. The Commission will adopt rules providing for the assignment of these frequencies through the use of competitive bidding pursuant to section 309(j). As the Commission noted in the *NPRM*, the Appropriations Act directs the Commission to assign licenses to use the 2305–2320 and 2345–2360 MHz bands through competitive bidding pursuant to Section 309(j) of the Communications Act. Section 309(j) provides that auctions may be used to award licenses among mutually exclusive applicants where the principal use of such spectrum will involve, or is reasonably likely to involve, a subscription-based service. *See* 47 U.S.C. 309(j)(1), (2). The Commission continues to believe that it is reasonable to conclude that the principal use of WCS spectrum will involve, or is reasonably likely to involve, the transmission or reception of communications signals to subscribers for compensation. While the Commission has decided to permit WCS licensees to provide a range of services, the uses of this spectrum most mentioned by commenters appear to involve services that would be provided on a subscription basis. Fixed (and radiolocation) services that could be provided include services similar to the Multichannel Multipoint Distribution Service (''MMDS''), the Location and Monitoring Service (''LMS''), Digital Termination Systems (''DTS''), Digital Electronic Messaging Service (''DEMS''), wireless local loop, and certain of the services provided by Local Multipoint Distribution Service (''LMDS''). Although it may be technologically infeasible to provide mobile services as a WCS offering in the near future due to the necessity for strict technical standards (*see infra*), services that may ultimately be provided include those similar to PCS, cellular, Specialized Mobile Radio (''SMR'') and paging. All of these services currently are provided to subscribers for compensation and the Commission believes that it is reasonable to expect that WCS offerings will be provided on a similar basis. In this regard, even if a WCS licensee chooses to offer a satellite DARS service on that portion of the spectrum available for such use, the Commission believes it is likely that such service also will be offered on a subscription basis.

29. The Commission's decision today also advances the objectives contained in section 309(j) of the Communications Act. Section 309(j)(3)(A) directs the Commission to seek to promote the development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in rural areas, without administrative or judicial delays. In this regard, the Commission believes that its service and licensing rules, in conjunction with its allocation plan, will allow for and foster the development of a range of new services and technologies. These policies also will advance the objective, expressed in section 309(j)(3)(B), of promoting economic opportunity and competition and ensuring that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telcos, and businesses owned by members of minority groups and women.

30. The Appropriations Act states that in making these frequencies available for competitive bidding, the Commission shall seek to promote the most efficient use of the spectrum. *See* Appropriations Act, section 3001(b)(1). As the Commission stated in the *NPRM*, the Commission believes that its competitive bidding rules will ensure

that spectrum is made available to those who value it most highly and therefore are most likely to put it to its most economically efficient use. This outcome will be further assured by the Commission's use of a simultaneous, multiple round auction that will allow applicants to aggregate spectrum and service areas into parcels of efficient size and to realize economies of scale and scope without the need for costly and time consuming post-auction transactions. In addition, as indicated above, the Commission has decided to permit the WCS licensee to provide fixed, mobile, radiolocation or satellite DARS services. The Commission believes there are significant competitive alternatives for each of these types of services that will ensure that WCS licensees have incentives to operate in an efficient and effective manner. The Commission therefore believes that there will be sufficient market incentives to promote the most efficient use of the 2305–2320 and 2345–2360 MHz bands, as required by the Appropriations Act and section 309(j)(3)(D) of the Communications Act.

C. Consideration of Public Safety Needs

31. As the Commission discussed in the *NPRM,* the Appropriations Act instructs it to take into account the needs of public safety radio services in making the WCS spectrum available through competitive bidding. Recognizing that the Appropriations Act marks the first time that Congress has specifically directed the Commission to consider the needs of public safety radio services in connection with licensing a particular spectrum band, the Commission sought comment generally on how it can best effectuate Congressional intent with regard to public safety needs as related to this spectrum. In addition, the Commission noted that in a post-enactment letter, the Chairman and Ranking Member of the House Committee on Commerce suggest that the Commission, consistent with its obligation to promote the public interest, pay particular attention to how the needs of public safety as well as commercial applicants may best be met in determining how to design this auction. The Commission referred to the recommendations made by the Public Safety Wireless Advisory Committee in its final report, and asked interested parties how our WCS rules should be fashioned so as to benefit the public safety community consistent with those recommendations. Finally, the Commission invited commenters to address a broad array of options, including making an allocation of some portion of the WCS spectrum for public safety entities, assigning the WCS spectrum with an obligation to contribute toward needs identified by the public safety community, and taking steps to encourage the use of WCS spectrum for services useful to public safety entities.

32. The Appropriations Act requires that the Commission take into account the needs of public safety radio services. Therefore, the Commission must consider the communications needs of the public safety community in assigning WCS frequencies. The record compiled in this proceeding and in the Commission's public safety proceeding demonstrates that spectrum currently allocated to public safety spectrum is inadequate to meet the public safety community's voice and data needs. In addition, this record suggests that currently allocated spectrum will not permit deployment by public safety agencies of needed advanced data and video systems. The Appropriations Act requires, however, that the use of 30 MHz of spectrum in the 2.3 GHz band be assigned by competitive bidding pursuant to section 309(j) of the Communications Act. The Commission therefore concludes that allocating a portion of the 2.3 GHz spectrum for public safety appears to be inconsistent with the Appropriations Act because, pursuant to the Commission's auction authority, the Commission is not permitted to assign spectrum to public safety applicants by competitive bidding.

33. In any case, even if spectrum were to be allocated for assignment only to public safety entities, the Commission does not believe that such an allocation would be the best way to meet those needs. The Commission notes that the WCS spectrum was not identified in the *PSWAC Final Report* as useful in meeting the public safety community's spectrum requirements. In this regard, the Commission believes that it is significant that APCO, the only public safety entity to comment in this proceeding, noted in its recent *ex parte* filing that facilitating possible public safety use of a small portion of the 2.3 GHz band for non-mission critical operations will have little or no impact on the spectrum needs identified by PSWAC. In addition, the Commission believes that it is significant that public safety entities do not currently have operations in any spectrum in or near the 2.3 GHz band. Thus, it may be more difficult for public safety entities to avail themselves of equipment economies of scale or to integrate this spectrum into their current communications systems. In addition, even if WCS spectrum were of some use to the public safety community, costly networks would still need to be constructed in order for useful services to be provided. In this regard, the Commission finds it significant that, as noted above, several commenters (both public safety entities and others) questioned whether a specific public safety allocation at 2.3 GHz would significantly assist public safety entities given the technical configuration and the financial resources that a 2.3 GHz system would require.

34. The record in this proceeding also demonstrates that public safety agencies require additional funding to enable them to migrate to new spectrum and to upgrade and purchase new equipment. In addition, the Commission notes that the *PSWAC Final Report* found, the radio systems used by the Public Safety community are laboring under increasing burdens. Equipment is old and funding for new equipment is often scarce. The *PSWAC Final Report* also found that funding for acquisition of new spectrum-efficient technologies and/or relocation to different frequency bands is likely to be a major impediment to improving Public Safety wireless systems. The *PSWAC Final Report* includes recommendations regarding the future operational requirements of public safety agencies, methods for achieving greater interoperability among agencies, the technologies that are and will be available to meet public safety requirements, and the amount of radio spectrum that will be necessary to meet these requirements. Many of these requirements can be met by the Commission's allocation of additional spectrum to public safety agencies, and the report examined alternative approaches for obtaining funding to assist public agencies in an orderly migration to new spectrum allocations and advanced technologies.

35. The Commission believes that, in order for the future needs of public safety wireless communications to be satisfied, new sources of funding will have to be devised. This is true regardless of the amount of spectrum made available for public safety. In this proceeding, the Commission has considered whether funds from the WCS auction could provide a source of funding for public safety agencies. The Commission notes, however, that section 309(j)(8)(A) requires that ''all proceeds from the use of a competitive bidding system under this subsection shall be deposited in the Treasury * * * .'' 47 U.S.C. 309(j)(8)(A). The only exceptions to this general rule are contained in sections 309(j)(8)(B) (providing for retention of revenues as

an offsetting collection for developing and implementing the auction program) and 309(j)(8)(C) (providing for deposit of upfront payments in an interest-bearing account, with interest transferred to the Telecommunications Development Fund). Therefore, it appears that legislative action is required before auction revenues can be used to provide a source of funding for public safety agencies to acquire new communications technologies. It is the Commission's belief that public safety agencies would benefit greatly from such action. The Commission notes that legislation recently introduced by Senator John McCain would provide for a portion of the revenues raised from an auction of spectrum currently used by television broadcast stations operating on channels 60–69 to be earmarked for ''funding State and local law enforcement and public safety agencies' mission-related radio communications capabilities.'' *See* S. 255, The Law Enforcement and Public Safety Telecommunications Empowerment Act, as introduced in the United States Senate on February 4, 1997, section 5(b)(1). The Commission believes that legislative approaches such as that taken in the McCain bill would substantially aid public safety agencies in their communications needs and thereby improve the safety of all Americans.

36. Though the Commission has concluded that designating 2.3 GHz spectrum for use exclusively by public safety entities is not advisable, the Commission emphasizes its continuing commitment to address public safety needs. Specifically, the Commission is considering the operational, technical and spectrum requirements of the public safety community in our Public Safety proceeding. *See The Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010*, WT Docket No. 96–86, *Notice of Proposed Rule Making*, 11 FCC Rcd 12460, 61 FR 25185 (May 20, 1996). That proceeding examines what spectrum bands could be useful for meeting existing and future communications requirements, including voice, data (such as transmission of fingerprints, building floor plans and medical data), and video for surveillance monitoring. The Commission expects that additional spectrum will be made available for public safety use as a result of that proceeding, and that its decision in that proceeding will address the specific communications requirements and bands identified by PSWAC. In addition, the Commission notes that several commenters, including APCO and Motorola, reiterated the public safety community's need for 24 MHz of spectrum at UHF channels 60–69. The Commission believes that their proposal has merit and plan to give it serious consideration in our Digital Television proceeding. *See Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, MM Docket No. 87–268, *Sixth Further Notice of Proposed Rule Making*, 11 FCC Rcd 10968, 61 FR 43209 (August 21, 1996). The Commission notes that legislation recently introduced by Senator McCain would direct the Commission to allocate 24 MHz of the channel 60–69 spectrum to public safety use, *See* S. 255, *The Law Enforcement and Public Safety Telecommunications Empowerment Act, as introduced in the United States Senate on February 4, 1997*, section 4(a), and that the Administration's 1998 budget also supports such a reallocation. *See Testimony of Larry Irving, Assistant Secretary for Communications and Information, U.S. Department of Commerce, before the Subcommittee on Telecommunications, Trade and Consumer Protection of the U.S. House of Representatives Committee on Commerce, February 12, 1997*, at 24; *see also Statement by Attorney General Janet Reno on Proposal to Set Aside Communications Frequencies for Public Safety Use*, released February 6, 1997.

37. The Commission declines to adopt special provisions to benefit petroleum and natural gas providers, railway operators and operators of water supply systems. Though the Commission recognizes that these entities perform valuable public service functions, the Commission does not believe that Congress intended that they be included in the class of ''public safety radio services'' that the Appropriations Act directs the Commission to take into account in this proceeding. The Commission's Rules define that term to include ''Local Government, Police, Fire, Highway Maintenance and Forestry-Conservation Radio Services.'' 47 CFR 90.15. The Commission declines to deviate from this established definition.

D. Service and Technical Rules

i. Eligibility

38. The Commission concludes that, with the exception of the foreign ownership restrictions set forth in section 310 of the Communications Act, *see* 47 U.S.C. 310, there will be no eligibility restrictions on participation in WCS. As the Commission stated in the *NPRM*, opening the WCS market to a wide range of applicants will permit and encourage entrepreneurial efforts to develop new technologies and services. The Commission also believes that, given the relatively large amount of spectrum that is available to provide services similar to those that can be operated on the WCS spectrum, providing open eligibility in this instance will not lead to excessive concentration of market power. The Commission agrees with CPI that Section 27.302 should ensure that WCS licensees are subject to all of the foreign ownership restrictions set forth in Section 310 of the Communications Act to the extent the restrictions are applicable to the particular service in question. Thus, for example, common carrier services would be subject to the restrictions in section 310(b). *See* 47 U.S.C. 310.

ii. CMRS Spectrum Cap

39. The decisional factor in whether to apply the CMRS spectrum cap to any particular service is a balancing of the potential benefits and costs. The Commission believes that, in these unique circumstances where the Commission is allocating spectrum and licensing a wholly new service pursuant to congressional directive, the potential benefits do not outweigh the potential costs. Thus the Commission will not count holdings of WCS spectrum at 2.3 GHz against the CMRS spectrum cap.

40. As the Commission noted in the *NPRM*, the CMRS spectrum cap was imposed out of concern that ''excessive aggregation [of spectrum] by any one of several CMRS licensees could reduce competition by precluding entry by other service providers and might thus confer excessive market power on incumbents.'' *Implementation of sections 3(n) and 332 of the Communications Act*, GN Docket No. 93–252, *Third Report and Order*, 9 FCC Rcd 7988, 8101, 59 FR 59945 (November 21, 1994) (''*CMRS Third Report and Order*''). The spectrum cap is intended to promote a vigorous competitive market for the provision of commercial mobile radio services, and to ensure that each mobile service provider (*i.e.*, cellular, PCS or SMR licensee) has the opportunity to obtain sufficient spectrum to compete effectively and that no single provider is able to preclude the provision of service by effective competitors or significantly reduce the number of competitors by aggregating spectrum.

41. As discussed more fully in Section III.D.7, *infra*, because the spectrum allocated for satellite DARS is situated between the two WCS bands, limitations

on out-of-band emissions by equipment operating on WCS spectrum are needed to protect against interference with sensitive satellite DARS reception. The Commission believes that the out-of-band emission limits we are adopting likely will, at least in the near term, make mobile operations in the WCS spectrum technologically infeasible. Hence, there is little likelihood that allowing an incumbent CMRS licensee to acquire enough WCS spectrum that its total CMRS and WCS spectrum holdings exceed the 45 MHz cap would have anticompetitive consequences for mobile services. Application of the CMRS spectrum cap to WCS spectrum is not necessary to guard against excessive concentration in the CMRS market or the accumulation of undue market power.

42. Conversely, even if it is technically feasible to use this spectrum for CMRS-type service, applying the cap and excluding many existing CMRS providers from acquiring WCS licenses would, the Commission believes, carry significant potential costs for consumers. With their existing base station infrastructures, CMRS licensees may be the most efficient users of WCS spectrum because economies of scope may be large in the provision of new services combined with the provision of conventional mobile voice CMRS. For example, it may be that a current CMRS licensee would be able to use its existing infrastructure to provide fixed services in the most cost efficient manner. Site acquisition and zoning approval for new facilities is both a major cost component and a major delay factor in deploying wireless systems. Facilities at existing cellular or PCS sites might accommodate additional equipment for new services or be modified to do so at a significantly lower cost than deploying a whole new cell infrastructure for the new service in a crowded environment. There may be other economies of scope in the provision of different services as well. Applying the CMRS spectrum cap to the WCS spectrum would interfere with the realization of these savings by preventing the direct participation by those entities who own the existing CMRS infrastructure, and consequently, prevent consumers from benefiting from these savings, with little off-setting benefit in competition.

43. The Commission recognizes that not applying the cap to WCS spectrum may result in some CMRS licensees acquiring spectrum and, provided that the technical obstacles noted *infra* can be overcome, that at some point these licensees may use WCS spectrum to compete against other CMRS licensees that have not acquired WCS spectrum. The Commission does not believe, however, that such a circumstance substantially risks impairing competition in the CMRS marketplace. When 30 MHz PCS systems are fully deployed with the minimum number of cells needed for competitive coverage, they will provide a large increase in capacity over what is currently available. As for the argument that regulatory parity compels application of the CMRS spectrum cap to WCS spectrum, the Commission disagrees. Whether or not the cap is applied, all CMRS providers stand on equal footing with respect to the acquisition of WCS licenses, and any entity using WCS spectrum to provide CMRS services will be regulated in the same manner as all other CMRS providers.

iii. Disaggregation and Partitioning

44. Consistent with the weight of the comments and with the Commission's recent decision to adopt the approach proposed in WT Docket No. 96–148 for broadband PCS, *See Geographic Partitioning and Spectrum Disaggregation by Commercial Mobile Radio Services Licensees; Implementation of Section 257 of the Communications Act—Elimination of Market Entry Barriers,* WT Docket No. 96–148, *Report and Order and Further Notice of Proposed Rule Making,* FCC 96–474, 62 FR 696 (January 6, 1997) (''*Partitioning and Disaggregation R&O*''), the Commission adopts its proposals for geographic partitioning and spectrum disaggregation. We will permit WCS licensees to partition their service areas into smaller geographic service areas and to disaggregate their spectrum into smaller blocks. We also conclude that the specific rules pertaining to partitioning and disaggregation in WT Docket No. 96–148 shall apply to WCS licensees. In addition, for the purposes of partitioning and disaggregation, we will require that WCS systems be designed so as not to exceed a signal level of 47 dBuV/m at the licensee's service area boundary, unless the affected adjacent service area licensees have agreed to a different signal level.

45. In WT Docket No. 96–148, the Commission decided to permit geographic partitioning by broadband PCS licensees along any service area defined by the partitioner and partitionee. *See Partitioning and Disaggregation R&O.* In addition, the Commission decided to permit spectrum disaggregation by broadband PCS licensees without restriction on the amount of spectrum to be disaggregated. The Commission concluded that allowing parties to decide without restriction the amount of spectrum to be disaggregated will encourage more efficient use of the spectrum and permit the deployment of a broader mix of service offerings, both of which will lead to a more competitive wireless marketplace. *Id.* We believe that this reasoning applies with equal force to WCS. Therefore, subject to the provisions discussed below with respect to licensees who take advantage of bidding credits, once an initial WCS license is granted, licensees will be free to partition their service areas and disaggregate their spectrum. Finally, consistent with PCS and other CMRS services, WCS licensees will be allowed to use management and operational arrangements to permit others to use portions of their spectrum and geographic service areas. The Commission wishes to emphasize that the WCS licensee must retain ultimate control over and responsibility for all operations under such arrangements.

46. The Commission concludes that any licensee will be permitted to partition its service area as long as it submits sufficient information to the Commission to maintain our licensing records. Partitioning applicants will be required to submit, as separate attachments to the partial assignment application, a description of the partitioned service area and a calculation of the population of the partitioned service area and licensed market. The partitioned service area must be defined by coordinate points at every 3 degrees along the partitioned service area agreed to by both parties, unless either (1) an FCC-recognized service area is utilized (*i.e.,* Major Trading Area, Basic Trading Area, Metropolitan Service Area, Rural Service or Economic Area) or (2) county lines are followed. These geographical coordinates must be specified in degrees, minutes and seconds to the nearest second of latitude and longitude, and must be based upon the 1927 North American Datum (NAD27). Applicants also may supply geographical coordinates based on 1983 North American Datum (NAD83) in addition to those required based on NAD27. This coordinate data should be supplied as an attachment to the partial assignment application, and maps need not be supplied. In cases where an FCC-recognized service area or county lines are being utilized, applicants need only list the specific area(s) (through use of FCC designations) or counties that make up the newly partitioned area.

47. Similarly, where WCS licensees seek to disaggregate their WCS spectrum, the Commission will not

require the disaggregating party to retain a minimum amount of spectrum. The Commission will allow disaggregating parties to negotiate channelization plans among themselves as part of their disaggregation agreements, and the Commission will continue to require that such plans provide the necessary out-of-band emission protections to third party licensees as required by our rules. The Commission is not adopting a limit on the maximum amount of spectrum that licensees may disaggregate. The Commission finds no evidence at this time that a maximum limitation for disaggregation is necessary. WCS licensees shall be permitted to disaggregate spectrum without limitation on the overall size of the disaggregation as long as such disaggregation is otherwise consistent with our rules.

48. The Commission declines to adopt RTG's proposal to provide rural telcos with a right of first refusal. Section 254 of the Telecommunications Act of 1996, Pub. L. 104–104, section 101, 110 Stat. 56 (1996), states that, in seeking to promote its goal of universal service, the Commission should ensure that consumers from all parts of the Nation, including rural areas, have access to telecommunications and information services that is comparable to service in other, more urban areas and at rates that are comparable to the rates available in urban areas. Granting rural telcos a right of first refusal would be at odds with the Commission's goals of ensuring that the largest number of entities participate in the WCS marketplace and eliminating barriers to entry for small businesses. As the Commission concluded in WT Docket No. 96–148, the Commission also believes that a right of first refusal would be difficult to administer and could discourage partitioning. *Partitioning and Disaggregation R&O*. For example, an area proposed for partitioning to a non-rural telco may intersect with an area for which a rural telco has a right of first refusal. A further problem would be uncertainty as to whether the rural telco's right of first refusal would continue after the auction winner partitioned the license area to another party. Additionally, a partitioning agreement may be part of a larger assignment transaction. If a rural telco were able to exercise a right of first refusal with respect to a partitioned area, it may not be possible to separate out the partitioning agreement to stand on its own and the entire assignment transaction could not be consummated.

49. If a WCS licensee that received a bidding credit partitions a portion of its license to an entity that would not meet the eligibility standards for a similar bidding credit, the Commission will require that the licensee reimburse the government for the amount of the bidding credit calculated on a proportional basis based upon the ratio of population of the partitioned area to the overall population of the licensed area. *See* 47 CFR 1.2110(f) and 24.717(c)(1). If a licensee that received a bidding credit partitions to an entity that would qualify for a lesser bidding credit, the Commission will require that the licensee reimburse the government for the difference between the amount of the bidding credit obtained by the licensee and the bidding credit for which the partitionee is eligible, calculated on a proportional basis based upon the ratio of population of the partitioned area. *See* 47 CFR 1.2110(f) and 24.717(c)(2). Similar provisions shall apply where a WCS licensee that receives a bidding credit seeks to disaggregate a portion of its spectrum to an entity that would not have qualified for such a bidding credit. All such unjust enrichment payments will be calculated based upon the ratio of the amount of spectrum disaggregated to the amount of spectrum retained by the original licensee. With respect to disaggregation from one licensee that qualified for a bidding credit to another licensee that would also qualify for a bidding credit, the Commission will adopt an approach similar to that adopted for partitioning.

50. Finally, to allow WCS licensees flexibility to design the types of agreements they desire, the Commission will follow its decision in WT Docket No. 96–148 to permit combined partitioning and disaggregation. For example, a party may obtain a license for a single county with only 5 MHz of WCS block A spectrum. By allowing such combined partitioning and disaggregation, we believe that the goals of providing competitive service offerings, encouraging new market entrants, and ensuring quality service to the public will be advanced. The Commission further concludes that in the event that there is a conflict in the application of the partitioning and disaggregation rules, the partitioning rules should prevail. For the purpose of applying the Commission's unjust enrichment provisions relating to bidding credits, when a combined partitioning and disaggregation is proposed, the Commission will use a combination of both population of the partitioned area and amount of spectrum disaggregated to make these *pro rata* calculations. For example, if a WCS licensee that availed itself of a bidding credit and a non-qualifying partitionee/disaggregatee were to agree on a 20 percent disaggregation of spectrum over 30 percent of the population of the licensed service area, an unjust enrichment payment of 6 percent (.20 x .30) of the bidding credit would be required.

51. The Commission also notes that these geographic partitioning and spectrum disaggregation rules, while not a substitute for licensing directly from the Commission, nevertheless will help to eliminate market entry barriers, consistent with section 257 of the Communications Act, by providing smaller, less capital-intensive areas and spectrum blocks which are more accessible by small business entities. *See* 47 U.S.C. 257.

iv. License Term

52. The WCS license term will be 10 years, with a renewal expectancy similar to that afforded PCS and cellular licensees. The Commission believes that this relatively long license term, combined with a renewal expectancy, will help to provide a stable regulatory environment that will be attractive to investors and, thereby, encourage development of this new frequency band. In the event that a WCS license is partitioned or disaggregated, any partitionee/disaggregatee will be authorized to hold its license for the remainder of the partitioner's/disaggregator's original ten-year license term, and the partitionee/disaggregatee will be required to submit the showings required at the five-year mark and with its renewal application. The Commission believes that this approach, which is similar to the partitioning provisions we recently adopted for the MDS and for current broadband PCS licensees is appropriate because a licensee, through partitioning, should not be able to confer greater rights than it was awarded under the terms of its license grant.

53. The Commission will require that a WCS licensee's renewal application include at a minimum the following showing to claim a renewal expectancy: (1) A description of current service in terms of geographic coverage and population served or links installed; (2) an explanation of the licensee's record of expansion, including a timetable for the construction of new base sites or links to meet changes in demand for service; (3) a description of the licensee's investments in its system; and (4) copies of any FCC orders finding the licensee to have violated the Communications Act or any FCC rule or policy, and a list of any pending proceedings that relate to any matter

described by the requirements for the renewal expectancy.

v. Performance Requirements

54. The Commission has concluded that, considering the unique circumstances in which WCS licenses are being awarded and the strict technical requirements necessary to prevent interference, it will adopt very flexible construction (or ''build-out'') requirements for WCS. Specifically, the Commission will require licensees to provide ''substantial service'' to their service area within 10 years. Although WCS licensees will have incentives to construct facilities to meet the service demands in their licensed service area, the Commission believes that minimum construction requirements can promote efficient use of the spectrum, encourage the provision of service to rural, remote and insular areas and prevent the warehousing of spectrum.

55. The build-out requirement that the Commission adopts today is the most liberal construction requirement adopted by the Commission to date. The Commission believes that this liberal build-out requirement is appropriate in the case of WCS for a number of reasons. First, the Commission is providing WCS licensees with the flexibility to offer a range of services using the WCS spectrum. Given the broad range of new and innovative services that the comments lead the Commission to believe might be provided over WCS spectrum, imposing strict construction requirements that would apply over the license term would be neither practical nor desirable as a means of meeting Section 309(j)'s objectives regarding warehousing and rapid deployment. Without knowing the specific type of service or services to be provided, it would be difficult to devise specific construction benchmarks. Further, given the undeveloped nature of equipment for use in this band and the technical requirements the Commission is adopting to prevent interference, the Commission is concerned that strict construction requirements might have the effect of discouraging participation in the provision of services over the WCS spectrum. It may be that a potential licensee could efficiently conduct certain operations on WCS spectrum, but must await further technological developments to do so affordably. Adopting strict construction requirements here could effectively preclude efficient uses of the spectrum. Particularly in light of the technological uncertainties associated with use of WCS spectrum to provide certain services consistent with the interference levels the Commission adopts today, the Commission believes that stringent build-out requirements are not warranted.

56. At the ten year period, the Commission will require all licensees to submit an acceptable showing to the Commission demonstrating that they are providing substantial service. Licensees failing to demonstrate that they are providing substantial service will be subject to forfeiture of their licenses. The Commission notes that in the past it has defined substantial service as ''service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal.'' *See, e.g.*, 47 CFR 22.940(a)(1)(i). For WCS, however, the Commission believes that further elaboration on this standard in the form of examples of what might constitute substantial service is useful. Thus, for a WCS licensee that chooses to offer fixed, point-to-point services, the construction of four permanent links per one million people in its licensed service area at the ten-year renewal mark would constitute substantial service. In the alternative, for a WCS licensee that chooses to offer mobile services, a demonstration of coverage to 20 percent of the population of its licensed service area at the ten-year mark would constitute substantial service. In addition, the Commission may consider such factors as whether the licensee is offering a specialized or technologically sophisticated service that does not require a high level of coverage to be of benefit to customers, and whether the licensee's operations serve niche markets or focus on serving populations outside of areas served by other licensees. These safe-harbor examples are intended to provide WCS licensees a degree of certainty as to how to comply with the substantial service requirement by the end of the initial license term. This requirement can be met in other ways, and the Commission will review licensees' showing on a case-by-case basis.

57. The Commission believes that these build-out provisions fulfill its obligations under section 309(j)(4)(B). The Commission also believes that the auction and service rules which it is adopting for WCS, together with its overall competition and universal service policies, constitute effective safeguards and performance requirements for WCS licensing. Because a license will be assigned in the first instance through competitive bidding, it will be assigned efficiently to a firm that has shown by its willingness to pay market value its willingness to put the license to its best use. The Commission also believes that service to rural areas will be promoted by its decision to allow partitioning and disaggregation of WCS spectrum.

58. Finally, the Commission reserves the right to review this liberal construction requirements in the future if we receive complaints related to section 309(j)(4)(B), or if the Commission's own monitoring initiatives or investigations indicate that a reassessment is warranted. The Commission also reserves the right to impose additional, more stringent construction requirements on WCS licenses in the future in the event of actual anticompetitive or rural service problems and if more stringent construction requirements can effectively ameliorate those problems.

vi. Regulatory Status

59. The Commission concludes that it will rely on each WCS applicant to identify in its long-form application the type of WCS service or services it will provide. Although the Commission will not presume at the outset that a WCS applicant will provide CMRS service, the Commission continues to believe, as it stated in the *NPRM*, that this approach will allow the Commission to carry out its responsibilities while imposing the least regulatory burden on the licensee. The Commission also delegates to the Wireless Telecommunications Bureau and to the International Bureau authority to develop forms appropriate to collect this data, and to monitor changes in licensee status. The predominant uses of WCS spectrum mentioned by commenters involved personal communications such as broadband voice and data transmission, including wireless local loop and wireless Internet access. If WCS spectrum is used for satellite DARS services, those services will be governed by the satellite DARS regulations currently under development in IB Docket No. 95–91.

60. The Commission's decision to permit WCS licensees to provide a variety or combination of services requires that the Commission adopt a licensing framework that authorizes WCS licensees to provide non-common carrier services as well as common carrier services. The Commission has recently increased the flexibility of licensees in other wireless services to provide both common carrier and non-common carrier services. In adopting a new application form for MDS, for example, the Commission provided applicants with the option on the new form to indicate their choice for common carrier or non-common carrier regulatory status. *Amendment of Parts 21 and 74 of the Commission's Rules*

with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service, MM Docket No. 94–131, and *Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, PP Docket No. 93–253, *Report and Order*, 10 FCC Rcd 9589, 9619, 60 FR 36524 (July 17, 1995) (''MDS and ITFS Competitive Bidding Report and Order''). For satellite services, the Commission has decided to provide all U.S.-licensed fixed satellite service systems with a choice between offering common carrier and non-common carrier services and also the opportunity to elect their regulatory classification in their applications. *Amendment to the Commission's Regulatory Policies Governing Domestic Fixed Satellites and Separate International Systems*, IB Docket No. 95–41, *Notice of Proposed Rule Making*, 10 FCC Rcd 7789, 7795–7796, 60 FR 24817 (May 10, 1995); *Report and Order*, 11 FCC Rcd 2429, 2436, 61 FR 9946 (March 12, 1996) (''*DISCO I Report and Order*''). In another proceeding, the Commission has adopted streamlined rules in part 25 for satellite services to use a simplified procedure to change licenses from non-common carrier status to common carrier status. *Streamlining the Commission's Rules and Regulations for Satellite Application and Licensing Procedures*, IB Docket No. 95–117, *Notice of Proposed Rule Making*, 10 FCC Rcd 10624, 60 FR 46252 (September 6, 1995); *Report and Order*, FCC 96–425, 62 FR 5924 (February 10, 1997) (''*Satellite Rules Report and Order*''). Finally, when the Commission implemented DBS systems under interim rules it adopted a policy to permit the dual provision of common and non-common carrier services which continues under the permanent rules. The flexible licensing framework the Commission adopts for WCS is consistent with the treatment accorded these services.

61. The Commission therefore will allow the service offering selected by a WCS licensee to determine its regulatory status. If a service offering falls within the statutory definition of common carrier, *see* 47 U.S.C. 153, the licensee will be subject to Title II and the licensing requirements of Title III of the Communications Act and the Commission's Rules. Otherwise, services provided on a non-common carriage basis will be subject to Title III and certain other statutory and regulatory requirements, depending on the specific characteristics of the service. The Telecommunications Act of 1996 provides that a telecommunications carrier will ''be treated as a common carrier under this Act only to the extent that it is engaged in providing telecommunications services.'' 47 U.S.C. 153(44). A telecommunications service is the ''offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.'' 47 U.S.C. 153(46). Telecommunications means ''the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.'' 47 U.S.C. 153(43). The Commission adopted these definitions in new part 51, which provides the rules governing interconnection of such carriers. *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996—CC Docket No. 96–98, Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket No. 95–185, *First Report and Order*, 11 FCC Rcd 15499, 61 FR 45476 (August 29, 1996), adopting new Rule 51.5. The U.S. Court of Appeals for the Eighth Circuit has stayed the pricing rules in the Order, pending review on the merits. *See Iowa Utilities Board v. FCC*, No. 96–3321 (8th Cir., Oct. 15, 1996). Thus, to the extent a WCS licensee is providing a service that fits within these definitions, that licensee will be subject to Title II and governed by the common carrier requirements pertinent to its services. Those requirements are set out in Part 1 and other parts of the Commission's Rules. In addition, the regulatory treatment of WCS licensees who choose to offer fixed or mobile telecommunications services will be addressed by the Commission in WT Docket No. 96–6. *See Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services*, WT Docket No. 96–6, *First Report and Order*, 11 FCC Rcd 8965, 61 FR 43721 (August 26, 1996).

62. Apart from this designation of regulatory status, the Commission will not require WCS applicants to describe the services they seek to provide. It is sufficient that an applicant indicate its choice for regulatory status in a streamlined application process. In providing guidance on this issue to MDS applicants, for example, the Commission pointed out that an election to provide service on a common carrier basis requires that the elements of common carriage be present; otherwise, the applicant must choose non-common carrier status. Of course, if an applicant is unsure of the nature of its services and their classification as common carrier services, it may submit a petition with its application or at any time request clarification and include service descriptions for that purpose.

63. The Commission also declines to require an applicant to choose between either common carrier or non-common carrier status in providing services in instances where it proposes to provide services that include elements of both common carrier and non-common carrier services. Instead, the Commission will permit both common carrier and non-common carrier services in a single license. An applicant may request both common carrier and non-common carrier status in the same application, which will result in the issuance of both authorizations in a single license. The licensee will be able to provide all WCS services anywhere within its licensed area at any time. This approach achieves efficiencies in the licensing and administrative process. The Commission notes that it has allowed certain mobile services in part 24 and part 90 to be authorized in a single license on both a common carrier and private carrier basis in order to provide services in both categories of service. *Implementation of Sections 3(n) and 332 of the Communications Act: Regulatory Treatment of Mobile Services*, GN Docket No. 93–252, *Second Report and Order*, 9 FCC Rcd 1411, 1459, 59 FR 18493 (April 19, 1994); 47 CFR § 20.9(b).

vii. Out-of-Band Emission Limits

64. In the *NPRM*, the Commission stated that, because WCS will operate in the 2305–2320 and 2345–2360 MHz bands, interference protection is required for the following adjacent operations: (1) Satellite DARS at 2320–2345 MHz, (2) Government Deep Space Network receivers at 2290–2300 MHz, and (3) Government and commercial telemetry above 2360 MHz.

65. In order to provide protection to these adjacent operations, the Commission proposed that all emissions outside of the WCS bands of operation be attenuated below the maximum spectral power density (p) within the band of operation, as follows:

(1) *For fixed operations, including radiolocation*: By a factor not less than 43 + 10 log (p) decibels (''dB'') on all frequencies between 2300 and 2305 MHz and above 2360 MHz; and not less than 70 + 10 log (p) dB on all frequencies below 2300 MHz and between 2320–2345 MHz band.

(2) *For mobile operations, including radiolocation*: By a factor not less than 43 +

10 log (p) dB on all frequencies between 2300 and 2305 MHz, between 2320 and 2345 MHz, and above 2360 MHz; and not less than 70 + 10 log (p) dB on all frequencies below 2300 MHz.

(3) *For WCS satellite DARS operations*: The limits set forth in § 25.202(f) of the Commission's rules. *See* 47 CFR 25.202(f).

For fixed and mobile operations, including radiolocation, the Commission stated that the above requirements are based on peak power measurements (watts) using a resolution bandwidth of at least 1 MHz. In addition, to further protect operations in adjacent bands, the Commission proposed to require that the frequency stability of transmission within the 2305–2320 and 2345–2360 MHz bands be sufficient to ensure that the fundamental emissions remain within the authorized frequency bands.

66. Finally, in order to protect Government Deep Space Network receivers at 2290–2300 MHz, the Commission proposed to prohibit use of the 2305–2310 MHz band for airborne or space-to-Earth links. Further, the Commission proposed that WCS operations within 50 kilometers (31 miles) of 35°20′ North Latitude and 116°53′ West Longitude (coordinates of the Deep Space Network receive site) be subject to coordination. Alternatively, we requested comment on whether it would be more appropriate to require less out-of-band attenuation in the case of mobile transmitters (*i.e.*, such transmitters would be subject to only the 43 + 10 log (p) dB requirement) but require that the coordination zone be extended to 120 kilometers (75 miles). The Commission specifically requested that parties address the trade-offs with regard to lower mobile equipment costs and the additional coordination constraints imposed by this alternative.

67. Based on the record before it, the Commission finds that the WCS out-of-band limits proposed in the *NPRM* would be insufficient to protect certain sensitive operations on adjacent frequencies. While it is the Commission desire to provide WCS licensees with the maximum flexibility to provide a wide range of services, the Commission also must ensure that WCS operations do not cause harmful interference or disruption to adjacent satellite DARS reception or the operations of the Arecibo Observatory. With regard to satellite DARS reception in the 2320–2345 MHz band, the Commission concurs with those commenting parties that suggest that additional attenuation of WCS out-of-band emissions is needed to protect such operations. The Commission is therefore modifying its original proposal and will require that all emissions from WCS fixed transmitters be attenuated below the transmitter power (p) by at least 80 + 10 log (p) dB and that all emissions from WCS mobile transmitters be attenuated at least 110 + 10 log (p) dB within the 2320–2345 MHz band. In complying with these requirements, WCS equipment that uses circular polarization will be permitted to assume an allowance of 10 dB where such WCS equipment operates with opposite sense circular polarization from that used by DARS operators in the 2320–2345 MHz band.

68. In addition, the Commission clarifies that (p) is the output power of the transmitter, in watts. The Commission further clarifies that out-of-band emissions in any 1 MHz bandwidth must be attenuated by X + 10 log (p) dB below the output power of the transmitter, where X is the attenuation required for a one watt transmitter. In addition, the Commission believes that requiring the out-of-band emissions measurement to be made by setting the measurement instrument resolution bandwidth to 1 MHz would unfairly penalize WCS equipment due to the difficulty of eliminating energy outside of the 1 MHz resolution bandwidth. Therefore, for out-of-band emissions measurements the Commission believes it is appropriate to permit use of a measurement instrument resolution bandwidth of less than the reference bandwidth of 1 MHz, provided that the energy is integrated over a 1 MHz bandwidth.

69. The Commission believes that these changes will provide significantly improved interference protection to DARS from WCS operations. The Commission is aware that these out-of-band emission limits may have significant cost or service implications for WCS, especially for operations on the channels immediately adjacent to the 2320–2345 MHz band. In particular, the Commission understands that there is a substantial risk that the out-of-band emission limits it is adopting will, at least in the foreseeable future, make mobile operations in the WCS spectrum technologically infeasible. Nonetheless, the Commission finds that this level of attenuation is required in order to adequately protect satellite DARS reception from WCS transmissions. The Commission believes that WCS transmitters can meet these limits through a variety of measures, including the use of linear amplifiers, filters distributed throughout the transmitter, and spectrum shaping signal processing. In this regard, the Commission encourages potential WCS bidders and WCS equipment manufacturers to consult with one another prior to the commencement of the auction to determine what services and equipment can be economically provided on these frequencies. The Commission believes that the limits it is adopting will allow both WCS and DARS to successfully operate. The Commission also encourages and will allow WCS and DARS licensees to coordinate their operations to provide for greater or lesser protection on a mutually agreed basis. The Commission expects WCS and DARS licensees to cooperate fully to minimize the possibility of harmful interference from one service to the other.

70. With regard to satellite DARS operations in WCS spectrum and the Arecibo Observatory, the Commission finds Cornell's comments persuasive. Accordingly, satellite DARS operations will be limited to a maximum power flux density of -197 dBW/m^2/4 kHz in the 2370–2390 MHz band at Arecibo, Puerto Rico. The adoption of a power flux density limit has the advantages of being readily measurable and of not needing to be adjusted if spectrum outside the 2320–2345 MHz band is employed for satellite DARS operations. Thus, the Commission does not believe that Cornell's alternative out-of-band emission limit is necessary. Instead, since the location of the satellite will be known, it is a relatively simple matter for a satellite DARS licensee to meet this requirement.

71. With regard to fixed and mobile operations, the Commission is adopting Cornell's proposed out-of-band emission limit of 70 + 10 log (p) dB for all frequencies above 2370 MHz. The Commission also believes that this out-of-band emission limit will help to protect aeronautical telemetry and associated telecommand operations in the 2360–2390 MHz band and the launch vehicle frequencies at 2370.5 and 2382.5 MHz.

72. In order to protect the Deep Space receiver site located on Fort Irwin at Goldstone, California, the Commission is prohibiting use of the 2305–2310 MHz band for airborne or space-to-Earth links. Additionally, in the 2305–2320 MHz band, the Commission is requiring that all WCS equipment meet an out-of-band emission limit of 70 + 10 log (p) on all frequencies below 2300 MHz. Finally, all WCS operations within 50 kilometers of 35°20′ North Latitude and 116°53′ West Longitude must be coordinated with the National Telecommunications and Information Administration (''NTIA'').

73. In summary, the revised WCS out-of-band emission limits require that all emissions outside of WCS Blocks A, B,

C and D (''the licensed bands of operation'') be attenuated below the output power (p) of each transmitter, measured in watts, as follows:

(1) *For fixed operations, including radiolocation*: By a factor not less than 80 + 10 log (p) dB on all frequencies between 2320 and 2345 MHz.

For mobile operations, including radiolocation: By a factor not less than 110 + 10 log (p) dB on all frequencies between 2320 and 2345 MHz.

For fixed and mobile operations, including radiolocation: By a factor not less than 70 + 10 log (p) dB on all frequencies below 2300 MHz and on all frequencies above 2370 MHz; and not less than 43 + 10 log (p) dB on all frequencies between 2300 and 2320 MHz and on all frequencies between 2345 and 2370 MHz that are outside the licensed bands of operation. In addition, WCS operations within 50 kilometers of Goldstone, California must be coordinated with NTIA.

(2) *For WCS satellite DARS operations*: The limits set forth in Section 25.202(f) of the Commission's Rules apply, except that satellite DARS operations are limited to a maximum power flux density of −197 dB(W/m²/4 kHz) in the 2370–2390 MHz band at Arecibo, Puerto Rico.

74. In addition, the Commission believes it desirable to permit WCS and satellite DARS licensees to voluntarily negotiate different limits if they so choose. For example, a WCS licensee could negotiate an agreement with a satellite DARS licensee that would permit the former greater out-of-band emissions in exchange for monetary compensation, or vice versa. If WCS and satellite DARS licensees negotiate different limits, then the Commission will require that the parties to the agreement maintain this information as part of their station files and disclose it to prospective assignees or transferees.

75. The Commission also agrees with the commenting parties that some in-band technical limits are needed between adjacent WCS channel block operations in order to facilitate spectrum sharing. Accordingly, the Commission is adopting an in-band emission limit that will require WCS licensees to attenuate their signals by at least 43 + 10 log (p) at the edge of their block, except between commonly held channel blocks (which require no attenuation). The Commission notes that an attenuation of 43 dB is commonly employed in other services and that it has been found there to adequately prevent adjacent channel interference. *See* 47 CFR 22.359(iii), 22.917(e), and 24.238. Furthermore, the Commission believes that the adoption of a minimum adjacent block attenuation value of 43 dB—coupled with the median field strength of 47 dBuV/m at any location on the border of a WCS service area—is the least intrusive regulation possible that will minimize harmful interference.

viii. International Coordination

76. In the *NPRM* the Commission stated that until international agreements are completed WCS operations will be required to protect existing non-U.S. operations in the 2305–2320 and 2345–2360 MHz bands and WCS operations in the border areas would be subject to coordination with those countries, as appropriate. In addition, the Commission noted that satellite DARS operations on WCS spectrum would be subject to international satellite coordination procedures. The Commission stated that parties should be aware that international coordination could be a complex and lengthy process and could vary significantly depending upon the types of WCS services that are to be provided. The Commission stressed therefore that international coordination requirements should be taken into account in developing business plans for the provision of WCS and that international coordination would be particularly important for parties contemplating the provision of WCS in border areas or the provision of satellite DARS operations.

77. The Commission reiterates that international coordination will be required for WCS operations near the United States' borders and, depending on the service and its interference potential, may also be required for non-border areas. This coordination requirement particularly may affect the implementation of satellite DARS operations in the 25 MHz of WCS spectrum being allocated to DARS on a co-primary basis with other services. Potential satellite DARS applicants should consult the February 16, 1996 letter from the FCC Satellite Engineering Branch to representatives of the current four satellite DARS applicants and responses thereto that address coordination in these bands for satellite DARS. These documents are filed in IB Docket No. 95–91, GN Docket 90–357, RM No. 8610, PP–24, PP–86, and PP–87. Use of the WCS spectrum for DARS services will be governed by the rules and regulations that will apply to the exclusive DARS spectrum between 2320–2345 MHz. These rules are expected to be adopted shortly in a Report and Order to be issued in IB Docket No. 95–91. *See Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310–2360 MHz Frequency Band*, IB Docket No. 95–91, GEN Docket No. 90–357, *Notice of Proposed Rule Making*, 11 FCC Rcd 1, 60 FR 35166 (July 6, 1995).

ix. RF Safety

78. With regard to RF safety requirements, the Commission proposed in the *NPRM* to treat WCS services and devices, operating within the 2305–2320 MHz and 2345–2360 MHz bands, in a comparable manner to other services and devices that have similar operating characteristics. The Commission noted that §§ 1.1307(b), 2.1091 and 2.1093 of our Rules list the services and devices for which an environmental evaluation must routinely be performed. *See* 47 CFR 1.1301, 1.1307(b), 2.1091, and 2.1093. The RF radiation exposure limits are set forth in 47 CFR 1.1310, 2.1091, and 2.1093, as applicable. Accordingly, the Commission proposed that an environmental evaluation for RF exposure would be required for the following WCS operations: (1) Transmitting terrestrial stations in the satellite DARS service, *e.g.*, ''gap fillers''; (2) fixed operations, including base stations and radiolocation, that have an effective radiated power (''ERP'') greater than 2000 watts; and (3) mobile and portable devices. The Commission invited comment on this proposal and requested suggestions for alternatives that would ensure public health with respect to exposure to RF radiation.

79. In the *NPRM*, the Commission proposed not to limit the output power of any WCS transmitter, but to require that WCS transmitters comply with our RF exposure limits. The Commission recognizes Omnipoint's concerns; however, the Commission notes that it recently adopted new, more stringent exposure limits in ET Docket No. 93–62 which apply to all frequencies between 300 kHz and 100 GHz. *See Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, ET Docket No. 93–62, *Report and Order*, 11 FCC Rcd 15123, 61 FR 41006 (August 7, 1996). *See also First Memorandum Opinion and Order*, ET Docket No. 93–62, 11 FCC Rcd 17512, 62 FR 3232 (January 22, 1997). When adopting these new exposure limits, the Commission considered recommendations from, *inter alia*, the Environmental Protection Agency, the Food and Drug Administration, and other federal health and safety agencies. Although Omnipoint has raised questions about the power threshold below which WCS facilities would be excluded from routinely determining compliance with the new exposure limits, the Commission has not received information in this proceeding indicating that the new exposure limits would not adequately protect public health at WCS operating frequencies.

Because all fixed, mobile, and portable transmitters are required to comply with our RF safety rules, as more specifically discussed below, the Commission believes that this decision will satisfactorily protect public health and should allay Omnipoint's concerns.

80. Specific to this proceeding, the Commission is requiring applicants desiring to use the following types of transmitters to perform routine environmental evaluations: (1) Transmitting terrestrial stations in the satellite DARS service and fixed operations, including base stations and radiolocation transmitters, when the ERP is greater than 1000 watts; (2) all portable devices; and (3) mobile devices, if the EIRP of the station, in its normal configuration, will be 1.5 watts or greater. The Commission has chosen the 1000 W ERP threshold, instead of the proposed 2000 watts, because of the flexibility in this service with respect to use, power, location, and other factors, and we believe that this power limit is appropriate for most exposure situations. This approach is consistent with the Commission's existing rules for transmitters and devices of comparable use and similar operating frequencies. The Commission will be providing guidance on acceptable methods of evaluating compliance with the Commission's exposure limits in OET Bulletin 65.

x. WCS Interference to MDS/ITFS

81. The Multipoint Distribution Service (''MDS'') and the Instructional Television Fixed Service (''ITFS'') operate in the 2150–2162 and 2500–2690 MHz bands. *See* 47 CFR part 21, subpart K and part 74, subpart I. After the comment period for this proceeding had closed, several parties filed *ex parte* statements expressing their concern that WCS transmissions would interfere with MDS/ITFS receiving installations. Specifically, BellSouth states that the receiver/downconverter (''downconverter'') located at each MDS/ITFS customer's home is an inexpensive broadband device that receives all frequencies between 2.1 GHz and 2.7 GHz. Thus, BellSouth states that a MDS/ITFS downconverter located sufficiently close to a WCS transmitter would directly receive WCS signals that would prevent clear reception of MDS/ITFS signals. Specifically, BellSouth calculates that a WCS transmitter that radiates more than 80 watts EIRP and that is located within 300 feet (91.44 meters) of a MDS/ITFS downconverter would overload the downconverter and thus prevent the reception of MDS/ITFS programming and information services. In order to counteract this problem, BellSouth requests that the Commission limit WCS radiated power to 20 watts EIRP, unless the WCS licensee obtains an interference consent agreement from the existing MDS and ITFS licensees. BellSouth states that its proposed limit on WCS power would limit the maximum input to MDS/ITFS receivers to 12 decibels below one milliwatt (or −12 dBm), thus providing protection against receiver overload.

82. The Wireless Cable Association asserts that there currently are one million analog MDS/ITFS installations and that interference from WCS operations could cost $125,000,000 or more to cure. The National ITFS Association notes that the Commission has a long standing policy of protecting existing operations from interference caused by newly authorized services and requests that the Commission address this issue in a manner that would allow existing ITFS licensees to use the frequencies licensed to them as intended by the Commission.

83. At this time the Commission will not impose any technical restrictions on WCS licensees aimed at protecting the MDS/ITFS services. The Commission understands the concerns expressed by the MDS/ITFS licensees, and appreciates the value of the educational, entertainment and other programming provided by these services, including competition in the MVPD market. As it has repeatedly stated, it is the Commission's desire that these services continue to flourish. However, based on the record before us, the Commission is not persuaded that the operation of WCS facilities would irreparably harm the MDS and ITFS services. Without a clear sense of what particular services WCS licensees will provide, and how soon these will be operational, the interference impact of WCS operations on MDS/ITFS is unclear. Therefore the Commission believes it would be premature at this time to consider specific interference protection for MDS/ITFS. The Commission also observes that the record on this issue is incomplete in that concerns of the MDS/ITFS community were first raised in late filed *ex parte* comments and thus no potential WCS applicants have had an opportunity to respond to those comments. The Commission also notes that traditional, analog MDS/ITFS downconverters have employed an inexpensive design that has minimal frequency selectivity. Thus, even though MDS/ITFS is licensed in the 2150–2162 MHz and 2500–2690 MHz bands only, their downconverters receive all signals throughout the entire 2.1–2.7 GHz band. The Commission is aware that the MDS/ITFS industry is converting to newer, more robustly designed downconverters that have vastly improved frequency selectivity and would not receive WCS signals. Also, the digital downconverters to which the MDS/ITFS industry is expected to convert over the next several years are expected to be better designed and not subject to overloading from WCS signals. The Commission applauds these developments and does not wish to impede them. The public is served through the efficient use of available spectrum which, in turn, is facilitated by the use of receiving technology designed to provide protection from other spectrum users in the market. Thus, to the extent that the Commission may in the future, based on actual WCS operations, find it necessary to adopt an interference rule for WCS, it would protect only those MDS/ITFS downconverters installed within a year from the adoption date of this Report and Order. After that time, the Commission would expect that only more spectrally efficient downconverters would be installed by MDS/ITFS licensees. In sum, the Commission concludes that it would be improvident to adopt a requirement for WCS licensees to protect MDS/ITFS operations unless and until it has a more precise understanding about the nature and extent of problems that may actually arise.

xi. Field Strength Between Service Areas

84. In order for licensees to share spectrum along a common border, each licensee must decrease its signal level at the border so that, while it can provide acceptable communications within its licensed service area, its signal level across the border is sufficiently reduced to avoid causing interference to the neighboring system. In broadband PCS, the Commission adopted a predicted or measured median field strength of 47 dBμV/m at any location on the border of the PCS service area unless the parties agree to a higher field strength. In drafting the proposed rules in the *NPRM*, we had to assume one of the service area options that were proposed in text. We assumed a nationwide license and thus did not specifically address the issue of median field strength between initial service areas. Nevertheless, we did specifically propose requiring a maximum median field strength of 47 dBμV/m between those service areas which would be formed through geographic partitioning. The Commission shall adopt this same 47 dBμV/m maximum median field strength requirement between all service

areas, unless the parties agree to a different field strength.

xii. Additional Technical Issues

85. In addition, Sun Microsystems requests that a minimum data rate of 5 bits per hertz be required for the WCS bands. Sun Microsystems argues that setting the minimum data rate at this high level would stimulate new technologies. Sun Microsystems proposes that analog transmission on the WCS spectrum be prohibited. Sun Microsystems states that each service offering should be tiered in order to allow the largest possible number of people to afford its benefits. Sun Microsystems requests that high gain directional antenna systems (with beamwidths no greater than 2° to 3°) be required for high power use and that any omnidirectional antenna be required to use low power and 18 to 25 dB gain antennas. Finally, Sun Microsystems suggests that orthogonal coding and modulation schemes be permitted in order to allow more than one licensee to use the same spectrum simultaneously. No party commented on Sun Microsystems' proposals.

86. The Commission believes that the licensees will have a strong incentive to put the spectrum to its best use. There is nothing in the record of this proceeding that suggests that prohibiting certain technologies or requiring specific technologies is appropriate for the WCS. Accordingly, the Commission declines to adopt the technical regulations proposed by Sun Microsystems.

E. Auction Procedures

87. In the *NPRM*, the Commission proposed an auction design and pre-auction procedures for the WCS service in accordance with the Appropriations Act and the expedited schedule which it imposes. Specifically, the Commission proposed to award the WCS licenses through competitive bidding and by means of a simultaneous multiple round electronic auction. The Commission based this proposal on the need to auction the WCS licenses quickly and to promote the efficient use of the spectrum. As the Commission noted, the Appropriations Act requires it to commence the WCS auction no later than April 15, 1997 and to conduct the auction in a manner that ensures that all proceeds are deposited into the United States Treasury no later than September 30, 1997.

i. Competitive Bidding Design

88. In the *NPRM*, the Commission proposed to auction licenses to offer WCS service in conformity with the general competitive bidding rules in part 1, subpart Q of the Commission's Rules and substantially consistent with the auctions that have been employed in other wireless services. 47 CFR part 1, subpart Q. In addition, the Commission proposed certain modifications, addressed *infra*, to help speed the auction process given the deadlines imposed by the Appropriations Act.

89. The Commission adopts its proposal to employ a single simultaneous multiple round auction design for the WCS auction similar to that used in the PCS auctions. As the Commission explained in the *NPRM*, multiple round bidding will provide more information to bidders about the values of the licenses during the auction than single round bidding. With better information, bidders will have less incentive to shade their bids downward in order to avoid the ''winner's curse'', that is the tendency for the winner to be the bidder who most overestimates the value of the item being auctioned. The Commission also believes that multiple round bidding is likely to be fairer than single round bidding as every bidder will have the opportunity to win a license if it is willing to pay the most for it. Finally, as the Commission stated in the *NPRM*, a single simultaneous auction will facilitate any aggregation strategies that bidders may have and will provide the most information to bidders about license values at a time that they can best put that information to use.

90. In addition, the Commission adopts its proposal to require bidding for WCS licenses by electronic means only. As the Commission indicated in the *NPRM*, this decision is based on the belief that while oral outcry auctions can be simple and rapid, it is not possible to auction multiple licenses simultaneously in an oral auction. The Commission also notes that because of the potentially large value of the WCS licenses, an electronic multiple round auction will be preferable because it will permit bidders time between rounds to confer with principals and reassess their valuation models and bidding strategies. The Commission also adopts its proposal to require that bidders submit their bids electronically, rather than by telephone. Given the time constraints imposed by the Appropriations Act, as well as the recent improvements in our electronic bidding software, the Commission believes that telephonic bidding should be permitted only under exceptional circumstances, to be determined by the Wireless Telecommunications Bureau. Finally, the Commission delegates to the Wireless Telecommunications Bureau the discretion to determine whether bidding for the WCS auction will be remote or on-site.

ii. *Bidding Procedures*

91. In the *NPRM*, the Commission tentatively concluded that the WCS auction should follow the general competitive bidding procedures of part 1, subpart Q of the Commission's rules. *See* 47 CFR part 1, subpart Q. In addition, the Commission proposed to adopt specific provisions regarding certain bidding-related issues. Finally, the Commission asked interested parties to suggest the appropriate level of a minimum opening bid for the WCS license or licenses.

92. The Commission adopts the bidding procedures proposed in the *NPRM*. The WCS auction will be conducted using the general bidding procedures set forth in part 1, subpart Q of the Commission's rules, with some minor modifications designed to speed the auction in order to comply with the time constraints imposed by the Appropriations Act. Specifically, the Commission delegates to the Wireless Telecommunications Bureau the discretion to establish a minimum opening bid for the WCS licenses and to announce the minimum opening bid by public notice. As the Commission stated in the *NPRM*, a minimum opening bid will cause bidders to start bidding at a substantial fraction of the final price of the license or licenses, thus ensuring that the auction proceeds quickly and increasing the likelihood that the public receives fair market value for the license or licenses. In keeping with its obligation under the Appropriations Act to ensure that the auction proceed rapidly, the Commission also delegates to the Wireless Telecommunications Bureau the discretion to establish, raise and lower minimum bid increments in the course of the auction. *See* 47 CFR 1.2104(d). Finally, the Commission concludes that where a tie bid occurs, the high bidder will be determined by the order in which the bids were received by the Commission.

iii. *Procedural and Payment Issues*

93. In the *NPRM*, the Commission tentatively concluded that, with certain proposed modifications, subpart Q of part 1 of the Commission's rules establishing procedural and payment rules for FCC auctions generally should apply to the WCS auction. Only one commenter addressed these issues. DigiVox contends that to effectively compete in the auctions, many parties (especially small businesses) will need 90 days from the release of the final rules before FCC Forms 175 are due in

order to finalize their business plans. DigiVox proposes a schedule that includes commencing the auction on May 2, 1997. As the Commission recognized in the *NPRM*, the Appropriations Act requires that the Commission ''shall commence the competitive bidding'' for WCS licenses no later than April 15, 1997. Although DigiVox urges an interpretation of this requirement that would allow applicants to submit their short-form applications on that date, the Commission concludes that the statute clearly requires that ''bidding'' commence on April 15, 1997. The Commission therefore will commence the WCS auction on April 15, 1997, and the auction will be conducted in substantial conformity with subpart Q of part 1 of the Commission's Rules. The Commission also adopts general rules regarding application and licensing procedures. *See* subpart E of new part 27.

94. *Pre-Auction Application Procedures.* In the *NPRM*, the Commission proposed that WCS applicants be required to file a short-form application (FCC Form 175) prior to the auction. *See* 47 CFR 1.2105(a). In addition, the Commission tentatively concluded that the Commission should require electronic filing of all applications for this auction. The Commission received no comments addressing this issue, and will implement this proposal. Each bidder in the WCS auction must submit a short-form application (FCC Form 175) by means of electronic filing. As the Commission stated in the *NPRM*, the Commission believes that electronic filing of applications will serve the best interests of auction participants as well as ensure that the WCS auction will be completed within the time frame mandated under the Appropriations Act. The Commission has developed user-friendly electronic filing software and Internet World Wide Web forms to give applicants the ability to easily and inexpensively file and review applications. In addition, the Commission believes that in light of the legislative deadline of April 15, 1997 for commencement of this auction, requiring electronic filing will be helpful to applicants as well as the Commission. By shortening the time required for the Commission to process applications before the auction, electronic filing will increase the lead time available to applicants to finalize their business plans and arrange necessary financing before the short-form filing deadline.

95. The Commission also proposed in the *NPRM* that an applicant's electronic submission of FCC Form 175 include a certification that the applicant is not in default on any Commission licenses and that it is not delinquent on any extension of credit from any federal agency. No commenters addressed this issue. The Commission therefore adopts this certification requirement for the WCS auction. As the Commission stated in the *NPRM*, a certification regarding defaulted licenses and delinquent payments to federal agencies will enable us to better evaluate the financial qualifications of potential bidders, because it will allow us to determine whether any bidder may later be subject to a monetary judgment or collection procedures that may impair its financial ability to provide service. In the *Second Report and Order*, we decided that we should require sufficient information on the short-form application to make a determination that ''the application is not in violation of Commission Rules and that applications not meeting those requirements may be dismissed prior to the competitive bidding.'' *Implementation of Section 309(i) of the Communications Act—Competitive Bidding*, PP Docket No. 93–253, *Second Report and Order*, 59 FR 22980 (May 4, 1994) (''*Second Report and Order*''). Part of this documentation necessarily includes certification that the bidder has the legal, technical, financial, and other qualifications to bid in the auction.

96. *Upfront Payment Amount.* The Commission's Part 1 Rules require the submission of an upfront payment as a prerequisite to participation in spectrum auctions. *See* 47 CFR 1.2106. In the *NPRM*, the Commission proposed to set the amount of the WCS upfront payment based on the general formula the Commission adopted in the *Second Report and Order* of $.02 per megahertz per population. In addition to seeking comment on this proposal, the Commission asked commenters to suggest alternative methods of establishing an upfront payment, and in particular, how the Commission may estimate the value of the spectrum to be auctioned. The Commission received no comments or alternative suggestions on this issue, and will therefore adopt the proposed upfront payment for the WCS auction. Given that a range of services may be provided on WCS spectrum, it is difficult to estimate the value of this spectrum. The Commission believes, however, that a $.02 per megahertz per population upfront payment will serve the twin purposes of upfront payments—to deter insincere bidding and to provide the Commission with a source of funds to satisfy any bid withdrawal or default payments—without being so high as to discourage participation in the WCS auction.

97. *Procedure For Upfront Payment.* The Commission also proposed to require bidders to deposit their upfront payments in the Commission's lock-box bank by wire transfer only by a date to be announced by public notice. No commenters addressed this issue. The Commission therefore adopts the requirement that bidders in the WCS auction deposit their upfront payment by wire transfer only. Although in the past the Commission has permitted payment by cashier's check, the Commission believes that requiring payment by wire transfer will benefit bidders by streamlining and expediting the administration of the auction. As the Commission noted in the *NPRM*, the Commission's experience has shown that verification of payments remitted by cashier's check is time-consuming and cumbersome, and requires the allotment of extra processing time prior to the start of the auction. Permitting payment by cashier's check would require that upfront payments be made at an earlier point, which would decrease applicants' lead time to pursue business plans and arrange necessary financing before the start of the auction. In addition, given the large number of financial institutions offering wire transfer services, a requirement that bidders remit their upfront payments by wire transfer will result in minimal, if any, extra cost to auction applicants. Such a cost is far outweighed by the benefit of speeding the auction process through quicker verification of payments.

98. *Down Payment and Full Payment.* In the *NPRM*, the Commission tentatively concluded that to help ensure that auction winners are able to pay the full amount of their bids, every winning bidder in the WCS auction would be required to tender a down payment sufficient to bring its total amount on deposit with the Commission up to 20 percent of its winning bid. *See* 47 CFR 1.2107(b). No commenters addressed this issue. The Commission therefore concludes that a down payment equal to 20 percent of each high bidder's total winning bids will be due within 10 business days after the issuance of a public notice announcing the winning bidder for each WCS license.

99. The Commission also proposed that a winning bidder that makes its down payment in a timely manner be required to file an FCC Form 600 long-form application and follow the long-form application procedures in § 1.2107. *See* 47 CFR 1.2107. The Commission proposed that after reviewing the

winning bidder's long-form application, and after verifying receipt of the winning bidder's 20 percent down payment, the Commission would announce the application's acceptance for filing, thus triggering the filing window for petitions to deny. The Commission also noted that given the abbreviated auction schedule contemplated by the Appropriations Act, a condensed schedule for the filing of petitions to deny would apply for the WCS auction. No commenters addressed this issue. The Commission therefore adopts these proposals governing long-form application procedures. Winning bidders that have made the necessary down payment will be required to file a modified FCC Form 600 that has been updated to provide for the Commission's decision to permit flexibility in terms of permissible uses. Finally, the Appropriations Act provides that no application for a WCS authorization may be granted earlier than seven (7) days following public notice of the acceptance for filing of such an application, and that parties will have no less than five (5) days following such public notice to file a petition to deny. *See* Appropriations Act, section 3001(c). The Commission will therefore afford parties five (5) days to file a response to any petition to deny. If, pursuant to Section 309(d) of the Communications Act, the Commission dismisses or denies any and all petitions to deny, the Commission will announce by public notice that it is prepared to award a license and the winning bidder will then have ten (10) business days to submit the balance of its winning bid. If the bidder does so, the license will be granted. If the bidder fails to submit the required down payment or the balance of the winning bid or the license is otherwise denied, the Commission will assess a default payment as discussed *infra.*

100. *Amendments and Modifications of Applications.* In the *NPRM,* the Commission stated that to encourage maximum bidder participation, applicants should be permitted to amend or modify their short-form applications as provided in § 1.2105. 47 CFR 1.2105. The Commission also noted that in the broadband PCS context, the Commission modified its rules to permit ownership changes that result when consortium investors drop out of bidding consortia, even if control of the consortium changes due to this restructuring. No commenters addressed this issue. The Commission therefore adopts the same exception to its rules prohibiting major amendments in the WCS auction.

101. *Bid Withdrawal, Default and Disqualification.* In the *NPRM,* the Commission tentatively concluded that the withdrawal, default, and disqualification rules for the WCS auction would be based upon the procedures established in the Commission's general competitive bidding rules. With regard to bids which are submitted in error, the Commission proposed to apply the guidelines which it recently fashioned to provide for relief from the bid withdrawal payment requirements under certain circumstances. *See Atlanta Trunking Associates, Inc. and MAP Wireless L.L.C. Requests to Waive Bid Withdrawal Payment Provisions, Order* 11 FCC Rcd 17189, 61 FR 25807 (May 23, 1996), *recon. pending. See also Georgia Independent PCS Corporation Request to Waive Bid Withdrawal Payment Provision, Order,* 11 FCC Rcd 13728, 61 FR 25810 (May 23, 1996), *app. rev. pending.* No commenters addressed this issue. We therefore adopt these provisions governing bid withdrawal, default and disqualification for the WCS auction.

iv. Anti-Collusion Rules

102. In the *NPRM,* the Commission tentatively concluded that the anti-collusion rules which the Commission adopted in the *Second Report and Order,* and which are codified at 47 CFR 1.2105, should apply to the WCS auction. The Commission received no comments addressing the issue of collusion. The Commission has therefore determined that these rules prohibiting collusive conduct will apply to the WCS auction.

v. Treatment of Designated Entities

103. Race- and gender-based classifications must meet exacting standards of judicial review. In *Adarand Constructors* v. *Peña,* 115 S.Ct. 2097 (1995) (''*Adarand*'') the Supreme Court held that all racial classifications, whether imposed at the federal, state or local government level, must be analyzed by a reviewing court under a strict scrutiny standard of review. This standard requires such classifications to be narrowly tailored to further a compelling governmental interest. *Adarand,* 115 S. Ct. at 2113. In *United States* v. *Virginia,* 116 S.Ct. 2264 (June 26, 1996) (''*VMI*'') the Supreme Court reviewed a state program containing gender classification and held it was unconstitutional under an intermediate scrutiny standard of review. This standard requires that ''[p]arties who seek to defend gender-based government action must demonstrate an 'exceedingly persuasive justification' for that action.'' *VMI,* 116 S. Ct. at 2274 (citing *J.E.B.* v. *Alabama ex rel. T. B.,* 511 U.S. 127, 136–37 and n. 6 (1994) and *Mississippi Univ. for Women* v. *Hogan,* 458 U.S. 718, 724 (1982)). Under this test, the government must show ''at least that the (challenged) classification serves 'important governmental objectives and that the discriminatory means employed' are 'substantially related to the achievement of those objectives.' '' *Id.* at 2275 (quoting *Mississippi Univ. for Women* v. *Hogan,* 458 U.S. at 724 (quoting *Wengler* v. *Druggists Mutual Ins. Co.,* 446 U.S. 142, 150 (1980))). While the Supreme Court has not directly addressed constitutional challenges to federal gender-based programs since *Adarand* and *VMI,* the Commission's review of the relevant broad language in *VMI* indicates that the Court does not differentiate between federal and state official actions in its equal protection analysis. Similarly, the *Adarand* decision definitively eliminated any distinction between federal and state race-based programs in setting its strict scrutiny standard of judicial review. *Adarand,* 115 S. Ct. at 2113. Therefore, the Commission concludes that any gender-based preference maintained in the WCS auction rules would need to meet the *VMI* intermediate scrutiny standard of review.

104. The Commission believes that the record in this proceeding is insufficient to support race- and gender-based provisions that would survive judicial scrutiny. Moreover, adopting race- and gender-based provisions unsupported by a substantial record would disserve the public interest because it might result in litigation that could further delay the conduct of the auction and the award of WCS licenses, and postpone the introduction of new competition to the marketplace. The Commission therefore concludes that it should not adopt special auction provisions that are race- and gender-based.

105. While the Commission declines to establish race- and gender-based provisions for the WCS auction rules, the Commission will adopt provisions for small businesses, as suggested by several commenters. The Commission notes that nothing in the *Adarand* or *VMI* decisions calls the Commission's small business provisions into question. Moreover, by retaining small business preferences, the Commission believes that it fulfill its mandate under section 309(j) to provide increased opportunities for minority- and women-owned businesses, 47 U.S.C. 309(j)(3),

because many minority- and women-owned entities are small businesses who therefore will qualify for the same special provisions that would have applied to them under the previous rules.

106. The Commission also has initiated a comprehensive rule making proceeding to gather evidence regarding market barriers to entry faced by small businesses as well as minority- and women-owned firms. *See Section 257 Proceeding to Identify and Eliminate Market Entry Barriers for Small Businesses*, GN Docket No. 96–113, *Notice of Inquiry*, 11 FCC Rcd 6280, 61 FR 33066 (June 26, 1996). If a sufficient record is adduced that will support race- and gender-based provisions that will satisfy judicial scrutiny, the Commission will consider race- and gender-based provisions for future auctions. Toward this end, the Commission will continue to request bidder information on the WCS short-form filings as to minority- or women-owned status. In its analysis of the applicant pool and the auction results, the Commission will monitor whether it has accomplished substantial participation by minorities and women through the broad provisions available to small businesses. This will also assist the Commission in preparing its report to Congress on the success of designated entities in auctions. *See* 47 U.S.C. 309(j)(12)(D).

i. Special Provisions for Designated Entities

A. Bidding Credits

107. The Commission will adopt bidding credits for small businesses and will adopt a tiered bidding credit approach, as supported by several commenters. The Commission agrees with commenters that the availability of bidding credits is consistent with the Commission's obligations under section 309(j) to promote economic opportunity for a wide variety of applicants, including small businesses and businesses owned by minorities and women. The Commission believes that a tiered approach, which enhances the discounting effect of bidding credits because not all entities receive the same benefit, will encourage smaller businesses to participate in the provision of WCS services. As for the level of the credits, the Commission believes that bidding credits of 25 percent for small businesses and 35 percent for very small businesses are appropriate. These levels reflect the thresholds used in the broadband PCS auctions with a reasonable adjustment for the unavailability of installment payment plans for WCS licensees. It is difficult to accurately calculate the net present value of an installment program (which would depend on several variables including future commercial interest rates), and the Commission therefore is adjusting the broadband PCS bidding credit levels upward by ten percentage points. The Commission believes that this tiered bidding credit approach and 10 percent adjustment are reasonable and consistent with the comments. These credits are narrowly tailored to the varying abilities of businesses to access capital and also take into account that different small businesses will pursue different strategies.

B. Definition of Small Business

108. Consistent with the suggestions of many of the commenters, the Commission will generally employ the small business definitions and standards used in broadband PCS, which the Commission believes have the advantages of ready availability and familiarity to many small businesses that might be interested in this spectrum. The Commission will therefore define a ''small business'' as an entity with average gross revenues not exceeding $40 million for each of the preceding three years, and a ''very small business'' as an entity with average gross revenues not exceeding $15 million in each of the preceding three years. The Commission declines to adopt the higher revenue standard suggested by Vanguard because it does not believe that Congress, in enacting section 309(j), intended for firms with $500 million in revenue to be regarded as ''small''. Furthermore, adopting Vanguard's suggested standard would create severe disparities between ''small businesses'' in terms of capitalization and access to financing.

109. In determining whether an entity qualifies as a small business at either threshold, the Commission will consider the gross revenues of the applicant, its affiliates, and certain investors in the applicant. Specifically, the Commission will attribute the gross revenues of all controlling principals in the applicant as well as the gross revenues of affiliates of the applicant. Consistent with broadband PCS rules, the Commission will apply two notable exceptions to these attribution rules. First, the Commission determines that personal net worth is not included in the determination of eligibility for bidding as a small business. Second, the Commission agrees with CIRI that entities owned by Alaska Native Corporations and Indian Tribes are exempt from affiliation for purposes of determining eligibility of applicants for bidding credits, because of the general lack of availability of revenues from such entities for purposes of participation in WCS. This exception is consistent with treatment afforded such entities by the Small Business Administration's 8(a) program, *See* 13 CFR 124.112(c)(2)(iii), and as the Commission previously has determined, it does not believe such a provision to be affected by *Adarand*.

110. The Commission declines, however, to employ the specific control group equity requirements that the Commission adopted for broadband PCS, because the time frame for the conduct of the WCS auction is likely to be too short to allow for the creation of the type of complex financial relationships as arose in the broadband PCS context. Instead, the Commission will simply define the term ''control'' to include both *de jure* and *de facto* control of the applicant. However, the Commission will still require that, in order for an applicant to qualify as a small business, qualifying small business principals must maintain ''control'' of the applicant. The Commission also notes that while it is not imposing specific equity requirements on the small business principals, the absence of significant equity could raise questions about whether the applicant qualifies as a *bona fide* small business.

C. Unjust Enrichment

111. The Commission agrees with CIRI on the employment of an unjust enrichment restriction on the transfer of licenses acquired by small businesses, similar to that set forth in 47 CFR 24.839(d), which the Commission believes is necessary to ensure that meaningful small business participation is not thwarted by transfers of licenses to non-designated entities. To permit otherwise would severely impede the meaningful participation of designated entities because bidders could participate as small businesses with the intention not of providing service but only of profiting from the difference in the discounted auction price and the worth of the license on the resale market. To prevent unjust enrichment by small businesses transferring licenses acquired through the use of bidding credits, the Commission imposes a payment requirement on transfers of such licenses to entities that are not owned by small businesses. The Commission believes it is appropriate to conform our unjust enrichment rules for WCS to the broadband PCS unjust enrichment rules as they relate to bidding credits. These rules provide

that, during the initial license term, licensees utilizing bidding credits and seeking to assign or transfer control of a license to an entity that does not meet the eligibility criteria for bidding credits will be required to reimburse the government for the amount of the bidding credit before the transfer will be permitted. 47 CFR 24.716(d)(1). Additionally, the rules which the Commission now adopts provide that if, within the original term, a licensee applies to assign or transfer control of a license to an entity that is eligible for a lower bidding credit, the difference between the bidding credit obtained by the assigning party and the bidding credit for which the acquiring party would qualify must be paid to the United States Treasury as a condition of approval of the assignment or transfer. 47 CFR 24.716(d)(2). *See also* 47 CFR 1.2111. These provisions also will apply to WCS licensees who partition or disaggregate their licenses.

112. If a licensee that utilizes bidding credits seeks to make any change in ownership structure that would render the licensee ineligible for bidding credits, or eligible only for a lower bidding credit, the licensee must first seek Commission approval and reimburse the government for the amount of the bidding credit, or the difference between its original bidding credit and the bidding credit for which it is eligible after the ownership change, plus interest based on the rate for ten year U.S. Treasury obligations applicable on the date the license is granted. Additionally, if an investor subsequently purchases an interest in the business and, as a result, the gross revenues of the business exceed the applicable financial caps, this unjust enrichment provision will apply.

113. The amount of this payment will be reduced over time as follows: (1) A transfer in the first five years of the license term will result in a forfeiture of 100 percent of the value of the bidding credit (or, in the case of very small businesses transferring to small businesses, 100 percent of the difference between the bidding credit received by the former and the bidding credit for which the latter is eligible); (2) in year six of the license term the payment will be 80 percent; (3) in year seven the payment will be 60 percent; in year eight the payment will be 40 percent; and in year nine the payment will be 20 percent, after which there will be no required payment. These assessments will have to be paid to the U.S. Treasury as a condition of approval of the assignment, transfer, or ownership change.

D. Other Matters

114. Based upon the record in this proceeding, the Commission has determined that special provisions for rural telcos are not warranted. However, rural telcos can take advantage of the geographic partitioning and spectrum disaggregation provisions which the Commission adopts, and those rural telcos that qualify as small or very small businesses may take advantage of the Commission's tiered bidding credits. In addition, the Commission declines to afford an additional bidding credit, as suggested by DigiVox, to small businesses bidding in areas in which they hold no CMRS licenses. The Commission believes that such preferences might discourage small businesses from acquiring WCS spectrum as supplemental for CMRS services already offered in that geographic license area, which would run counter to our goal of flexible use. The Commission also declines to adopt any limit on the total number of WCS licenses for which an entity may take advantage of small business bidding credits. The Commission does not regard such limitation as necessary and generally believes that, absent a strong justification to do otherwise, the auction process should be permitted to work without constraint to allow all bidders to express their valuations of the licenses up for bid. Finally, the Commission also declines to set aside a block of licenses for auction only to designated entities because the Commission does not believe such set-asides to be necessary to ensure opportunities for participation by designated entities in light of the substantial bidding credits, as well as the partitioning and disaggregation rules the Commission is adopting.

115. The Commission also notes that its decision both to license WCS in two 10 MHz blocks and two 5 MHz blocks, and to designate MEA and REAG service areas should increase the opportunities for participation in WCS by small businesses and other designated entities. These decisions will help to ensure that the cost of obtaining WCS spectrum remains within reach of a larger number of prospective applicants than would be the case were we to offer only one or two licenses in each area. In addition, by offering licenses for smaller blocks of spectrum, the Commission will enable WCS applicants to acquire only the amount of spectrum necessary to implement their particular service plans. Such efficiencies directly benefit small businesses who may not be able to afford to acquire larger blocks of spectrum. For example, permitting bidders to acquire smaller blocks of spectrum will enable small businesses that have identified niche markets to focus their bidding and avoid paying for more spectrum than they actually need.

Federal Communications Commission.

William F. Caton,

Acting Secretary.

Rule Changes

Parts 1, 2, 27, and 97 of title 47 of the Code of Federal Regulations are amended as follows:

PART 1—PRACTICE AND PROCEDURE

1. The authority citation for part 1 continues to read as follows:

Authority: 47 U.S.C. 151, 154, 303, and 309(j) unless otherwise noted.

2. Section 1.1307 is amended by revising paragraphs (b)(1) and the first sentence of paragraph (b)(2) and Table 1 in paragraph (b)(1) is amended by adding the entry for the Wireless Communications Service to read as follows:

§ 1.1307 Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.

* * * * *

(b) * * *

(1) The exposure limits in § 1.1310 are generally applicable to all facilities, operations and transmitters regulated by the Commission. However, a determination of compliance with the exposure limits in § 1.1310 (routine environmental evaluation), and preparation of an EA if the limits are exceeded, is necessary only for facilities, operations and transmitters that fall into the categories listed in Table 1, or those specified in paragraph (b)(2) of this section. All other facilities, operations and transmitters are categorically excluded from making such studies or preparing an EA, except as indicated in paragraphs (c) and (d) of this section. For purposes of Table 1, ''rooftop'' means the roof or otherwise outside, topmost level or levels of a building structure that is occupied as a workplace or residence and where either workers or the general public may have access. The term ''power'' in column 2 of Table 1 refers to total operating power of the transmitting operation in question in terms of effective radiated power (ERP), equivalent isotropically radiated power (EIRP), or peak envelope power (PEP), as defined in § 2.1 of this chapter. For the case of the Cellular Radiotelephone Service, subpart H of part 22 of this

chapter; the Personal Communications Service, part 24 of this chapter; the Wireless Communications Service, part 27 of this chapter; and covered Specialized Mobile Radio Service operations, part 90 of this chapter; the phrase ''total power of all channels'' in column 2 of Table 1 means the sum of the ERP or EIRP of all co-located simultaneously operating transmitters of the facility. When applying the criteria of Table 1, radiation in all directions should be considered. For the case of transmitting facilities using sectorized transmitting antennas, applicants and licensees should apply the criteria to all transmitting channels in a given sector, noting that for a highly directional antenna there is relatively little contribution to ERP or EIRP summation for other directions.

TABLE 1.—TRANSMITTERS, FACILITIES AND OPERATIONS SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

Service (Title 47 CFR rule part)	Evaluation required if:
* * * * *	* * * * *
Wireless Communications Service (Part 27).	Total power of all channels > 1000 W ERP (1640 W EIRP)

TABLE 1.—TRANSMITTERS, FACILITIES AND OPERATIONS SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION—Continued

Service (Title 47 CFR rule part)	Evaluation required if:
* * * * *	* * * * *

(2) Mobile and portable transmitting devices that operate in the Cellular Radiotelephone Service, the Personal Communications Services, the Satellite Communications Services, the Wireless Communications Service, the Maritime Services (ship earth stations only), and covered Specialized Mobile Radio Service providers authorized under subpart H of part 22, part 24, part 25, part 27, part 80, and part 90 of this chapter are subject to routine environmental evaluation for RF exposure prior to equipment authorization or use, as specified in §§ 2.1091 and 2.1093 of this chapter.

* * *

* * * * *

PART 2—FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

1. The authority citation for part 2 continues to read as follows:

Authority: Secs. 4, 302, 303, and 307 of the Communications Act of 1934, as amended, 47 U.S.C. 154, 302, 303 and 307, unless otherwise noted.

2. Section 2.106, the Table of Frequency Allocations, is amended as follows:

a. Remove the existing entries for 2300–2450 MHz.

b. Add entries in numerical order for 2300–2450 MHz.

c. In the International Footnotes under heading I., add footnotes S5.150, S5.282 , S5.393, S5.394, S5.395, and S5.396 in numerical order.

d. In the International Footnotes under heading II., remove footnotes 750B, 751, 751A, and 751B.

e. Remove United States footnote US253.

f. Add United States footnotes US338 and US339 in numerical order.

g. Revise United States footnotes US276 and US328.

h. Revise Government footnote G2.

i. Add Government footnotes G120, G123 and G124 in numerical order.

The revisions and additions read as follows:

§ 2.106 Table of Frequency Allocations.

* * * * *

International table			United States table		FCC use designators	
Region 1—allocation MHz	Region 2—allocation MHz	Region 3—allocation MHz	Government	Non-Government	Rule part(s)	Special-use frequencies
			Allocation MHz	Allocation MHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
*	*	*	*	*	*	*
2300–2305 FIXED MOBILE Amateur Radiolocation	2300–2305 FIXED MOBILE RADIOLOCATION Amateur S5.394	2300–2305 FIXED MOBILE RADIOLOCATION Amateur	2300–2305 G123	2300–2305 Amateur	Amateur (97)	
2305–2310 FIXED MOBILE Amateur Radiolocation	2305–2310 FIXED MOBILE RADIOLOCATION Amateur S5.394	2305–2310 FIXED MOBILE RADIOLOCATION Amateur	2305–2310 US338 G123	2305–2310 FIXED MOBILE except aeronautical mobile RADIOLOCATION Amateur US338	WIRELESS COMMUNICATIONS (27) Amateur (97)	
2310–2320 FIXED MOBILE Amateur Radiolocation	2310–2320 FIXED MOBILE RADIOLOCATION Amateur	2310–2320 FIXED MOBILE RADIOLOCATION Amateur	2310–2320 FIXED Mobile US339 Radiolocation G2	2310–2320 BROADCASTING—SATELLITE US327 MOBILE US339 RADIOLOCATION	WIRELESS COMMUNICATIONS (27)	Digital Audio Radio Services

International table			United States table		FCC use designators	
Region 1—allocation MHz	Region 2—allocation MHz	Region 3—allocation MHz	Government	Non-Government	Rule part(s)	Special-use frequencies
			Allocation MHz	Allocation MHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S5.395	S5.393 S5.394 S5.396	S5.393 S5.396	S5.396 US327 US338 G120	S5.396 US338		
2320–2345	2320–2345	2320–2345	2320–2345	2320–2345 BROADCASTING—SATELLITE US327		
FIXED	FIXED	FIXED	Fixed			Digital Audio Radio Services
MOBILE	MOBILE	MOBILE	Mobile US 276	Mobile US 276 US328		
Amateur	RADIOLOCATION	RADIOLOCATION	Radiolocation G2			
Radiolocation	Amateur	Amateur				
S5.395	S5.393 S5.394 S5.396	S5.393 S5.396	S5.396 US327 US328 G120	S5.396		
2345–2360	2345–2360	2345–2360	2345–2360	2345–2360 BROADCASTING—SATELLITE US327		Digital Audio Radio Services
FIXED	FIXED	FIXED	Fixed	FIXED	WIRELESS COMMUNICATIONS (27)	
MOBILE	MOBILE	MOBILE	Mobile US339	MOBILE US339		
Amateur	RADIOLOCATION	RADIOLOCATION	Radiolocation G2	RADIOLOCATION		
Radiolocation	Amateur	Amateur				
S5.395	S5.393 S5.394 S5.396	S5.393 S5.396	S5.396 US327 G120	S5.396		
2360–2390	2360–2390	2360–2390	2360–2390	2360–2390		
FIXED	FIXED	FIXED	MOBILE US276	MOBILE US276		
MOBILE	MOBILE	MOBILE	RADIOLOCATION G2			
Amateur	RADIOLOCATION	RADIOLOCATION	Fixed			
Radiolocation	Amateur	Amateur				
	S5.394		G120			
2390–2400	2390–2400	2390–2400	2390–2400	2390–2400		
FIXED	FIXED	FIXED		AMATEUR	AMATEUR (97)	
MOBILE	MOBILE	MOBILE			Radio Frequency Devices (15)	
Amateur	RADIOLOCATION	RADIOLOCATION				
Radiolocation	Amateur	Amateur				
	S5.394		G122			
2400–2402	2400–2402	2400–2402	2400–2402	2400–2402		
FIXED	FIXED	FIXED		Amateur	Amateur (97)	
MOBILE	MOBILE	MOBILE				
Amateur	RADIOLOCATION	RADIOLOCATION				
Radiolocation	Amateur	Amateur				
S5.150 S5.282	S5.150 S5.282 S5.394	S5.150 S5.282	S5.150 G123	S5.150 S5.282		
2402–2417	2402–2417	2402–2417	2402–2417	2402–2417		
FIXED	FIXED	FIXED		AMATEUR	AMATEUR (97)	
MOBILE	MOBILE	MOBILE			Radio Frequency Devices (15)	
Amateur	RADIOLOCATION	RADIOLOCATION				
Radiolocation	Amateur	Amateur				
S5.150 S5.282	S5.150 S5.282 S5.394	S5.150 S5.282	S5.150 G122	S5.150 S5.282		
2417–2450	2417–2450	2417–2450	2417–2450	2417–2450		
FIXED	FIXED	FIXED	Radiolocation G2	Amateur	Amateur (97)	
MOBILE	MOBILE	MOBILE				
Amateur	RADIOLOCATION	RADIOLOCATION				
Radiolocation	Amateur	Amateur				

International table			United States table		FCC use designators	
Region 1—allocation MHz	Region 2—allocation MHz	Region 3—allocation MHz	Government	Non-Government	Rule part(s)	Special-use frequencies
			Allocation MHz	Allocation MHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S5.150 S5.282	S5.150 S5.282 S5.394	S5.150 S5.282	S5.150 S5.282 G124	S5.150 S5.282		
*	*	*	*	*	*	*

International Footnotes

* * * * *

I. New ''S'' Numbering Scheme.

* * * * *

S5.150 The following bands:

13533–13567 kHz (centre frequency 13560 kHz),
26957–27283 kHz (centre frequency 27120 kHz),
40.66–40.70 MHz (centre frequency 40.68 MHz),
902–928 MHz in Region 2 (centre frequency 915 MHz),
2400–2500 MHz (centre frequency 2450 MHz),
5725–5875 MHz (centre frequency 5800 MHz), and
24–24.25 GHz (centre frequency 24.125 GHz)

are also designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within these bands must accept harmful interference which may be caused by these applications. ISM equipment operating in these bands is subject to the provisions of No. 1815/S15.13.

S5.282 In the bands 435–438 MHz, 1260–1270 MHz, 2400–2450 MHz, 3400–3410 MHz (in Regions 2 and 3 only) and 5650–5670 MHz, the amateur-satellite service may operate subject to not causing harmful interference to other services operating in accordance with the Table (see No. S5.43). Administrations authorizing such use shall ensure that any harmful interference caused by emissions from a station in the amateur-satellite service is immediately eliminated in accordance with the provisions of No. 2741/S25.11. The use of the bands 1260–1270 MHz and 5650–5670 MHz by the amateur-satellite service is limited to the Earth-to-space direction.

* * * * *

S5.393 *Additional allocation:* in the United States and India, the band 2310–2360 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial sound broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to the provisions of Resolution 528 (WARC–92).

S5.394 In the United States, the use of the band 2300–2390 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services. In Canada, the use of the band 2300–2483.5 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services.

S5.395 In France, the use of the band 2310–2360 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service.

S5.396 Space stations of the broadcasting-satellite service in the band 2310–2360 MHz operating in accordance with No. S5.393 that may affect the services to which this band is allocated in other countries shall be coordinated and notified in accordance with Resolution 33. Complementary terrestrial broadcasting stations shall be subject to bilateral coordination with neighboring countries prior to their bringing into use.

* * * * *

United States (US) Footnotes

* * * * *

US276 Except as otherwise provided for herein, use of the bands 2320–2345 and 2360–2390 MHz by the mobile service is limited to aeronautical telemetering and associated telecommand operations for flight testing of manned or unmanned aircraft, missiles or major components thereof. The following four frequencies are shared on a co-equal basis by Government and non-Government stations for telemetering and associated telecommand operations of expendable and reusable launch vehicles whether or not such operations involve flight testing: 2332.5, 2364.5, 2370.5, and 2382.5 MHz. All other mobile telemetering uses shall be secondary to the above uses.

* * * * *

US328 In the band 2320–2345 MHz, the mobile and radiolocation services are allocated on a primary basis until a broadcasting-satellite (sound) service has been brought into use in such a manner as to affect or be affected by the mobile and radiolocation services in those service areas. The broadcasting-satellite (sound) service during implementation should also take cognizance of the expendable and reusable launch vehicle frequency 2332.5 MHz, to minimize the impact on this mobile service use to the extent possible.

* * * * *

US338 In the 2305–2310 MHz band, space-to-Earth operations are prohibited. Additionally, in the 2305–2320 MHz band, all Wireless Communications Service (WCS) operations within 50 kilometers of 35° 20″ North Latitude and 116° 53″ West Longitude shall be coordinated through the Frequency Assignment Subcommittee of the Interdepartment Radio Advisory Committee in order to minimize harmful interference to NASA's Goldstone Deep Space facility.

US339 The bands 2310–2320 and 2345–2360 MHz are also available for aeronautical telemetering and associated telecommand operations for flight testing of manned or unmanned aircraft, missiles or major components thereof on a secondary basis to the Wireless Communications Service. The following two frequencies are shared on a co-equal basis by Government and non-Government stations for telemetering and associated telecommand operations of expendable and re-usable launch vehicles whether or not such operations involve flight testing: 2312.5 and 2352.5 MHz. Other mobile telemetering uses may be provided on a non-interference basis to the above uses. The broadcasting-satellite (sound) service during implementation should also take cognizance of the expendable and reusable launch vehicle frequencies 2312.5 and 2352.5 MHz, to minimize the impact on this mobile service use to the extent possible.

* * * * *

Government Footnotes

* * * * *

G2 In the bands 216–225, 420–450 (except as provided by US217), 890–902, 928–942, 1300–1400, 2310–2390, 2417–2450, 2700–2900, 5650–5925, and 9000–9200 MHz, the Government radiolocation is limited to the military services.

* * * * *

G120 Development of airborne primary radars in the band 2310–2390 MHz with peak transmitter power in excess of 250 watts for use in the United States is not permitted.

* * * * *

G123 The bands 2300–2310 and 2400–2402 MHz were identified for reallocation, effective August 10, 1995, for exclusive non-Government use under Title VI of the Omnibus Budget Reconciliation Act of 1993. Effective August 10, 1995, any Government operations in these bands are on a non-interference basis to authorized non-Government operations and shall not hinder the implementation of any non-Government operations.

G124 The band 2417–2450 MHz was identified for reallocation, effective August 10, 1995, for mixed Government and non-Government use under Title VI of the Omnibus Budget Reconciliation Act of 1993.

3. Section 2.1091 is amended by revising the first sentence in paragraph (c) to read as follows:

§ 2.1091 Radiofrequency radiation exposure evaluation: mobile and unlicensed devices.

* * * * *

(c) Mobile devices that operate in the Cellular Radiotelephone Service, the Personal Communications Services, the Satellite Communications Services, the Wireless Communications Service, the Maritime Services and the Specialized Mobile Radio Service authorized under subpart H of part 22 of this chapter, part 24 of this chapter, part 25 of this chapter, part 27 of this chapter, part 80 of this chapter (ship earth station devices only) and part 90 of this chapter (''covered'' SMR devices only, as defined in the note to Table 1 of § 1.1307(b)(1) of this chapter), are subject to routine environmental evaluation for RF exposure prior to equipment authorization or use if their effective radiated power (ERP) is 1.5 watts or more. * * *

* * * * *

4. Section 2.1093 is amended by revising the first sentence of paragraph (c) to read as follows:

§ 2.1093 Radiofrequency radiation exposure evaluation: portable devices.

* * * * *

(c) Portable devices that operate in the Cellular Radiotelephone Service, the Personal Communications Services, the Satellite Communications Services, the Wireless Communications Service, the Maritime Services and the Specialized Mobile Radio Service authorized under subpart H of part 22 of this chapter, part 24 of this chapter, part 25 of this chapter, part 27 of this chapter, part 80 of this chapter (ship earth station devices only), part 90 of this chapter (''covered'' SMR devices only, as defined in the note to Table 1 of section 1.1307(b)(1) of this chapter), and portable unlicensed personal communication service and millimeter wave devices authorized under § 15.253, § 15.255 or subpart D of part 15 of this chapter are subject to routine environmental evaluation for RF exposure prior to equipment authorization or use. * * *

* * * * *

5. A new part 27 is added to read as follows:

PART 27—WIRELESS COMMUNICATIONS SERVICE

Subpart A—General Information

Sec.

Subpart B—Applications and Licenses

Subpart C—Technical Standards

Subpart D—Competitive Bidding Procedures for WCS

Subpart E—Application, Licensing, and Processing Rules for WCS

Authority: 47 U.S.C. 154, 301, 302, 303, 307, 309 and 332, unless otherwise noted.

Subpart A—General Information

§ 27.1 Basis and purpose.

This section contains the statutory basis for this part of the rules and provides the purpose for which this part is issued.

(a) *Basis.* The rules for the Wireless Communications Service (WCS) in this part are promulgated under the provisions of the Communications Act of 1934, as amended, that vest authority in the Federal Communications Commission to regulate radio transmission and to issue licenses for radio stations.

(b) *Purpose.* This part states the conditions under which the 2305–2320 MHz and 2345–2360 MHz bands are made available and licensed for the provision of WCS.

(c) *Scope.* The rules in this part apply only to stations authorized under this part.

§ 27.2 Permissible communications.

Subject to the rules contained herein, fixed, mobile and radiolocation services may be provided using the 2305–2320 and 2345–2360 MHz bands. In addition, satellite digital audio radio service (DARS) may be provided using the 2310–2320 and 2345–2360 MHz bands. Satellite DARS service shall be provided in manner consistent with part 25 of this chapter.

§ 27.3 Other applicable rule parts.

Other FCC rule parts applicable to the Wireless Communications Service include the following:

(a) *Part 0.* This part describes the Commission's organization and delegations of authority. Part 0 of this chapter also lists available Commission publications, standards and procedures for access to Commission records, and location of Commission Field Offices.

(b) *Part 1.* This part includes rules of practice and procedure for license applications, adjudicatory proceedings, procedures for reconsideration and review of the Commission's actions; provisions concerning violation notices and forfeiture proceedings; competitive bidding procedures; and the environmental requirements that, if applicable, must be complied with prior to the initiation of construction.

(c) *Part 2.* This part contains the Table of Frequency Allocations and special requirements in international regulations, recommendations, agreements, and treaties. This part also contains standards and procedures concerning the marketing and importation of radio frequency devices, and for obtaining equipment authorization.

(d) *Part 5.* This part contains rules prescribing the manner in which parts of the radio frequency spectrum may be made available for experimentation.

(e) *Part 17.* This part contains requirements for construction, marking and lighting of antenna towers.

(f) *Part 25.* This part contains the requirements for satellite communications, including satellite DARS.

(g) *Part 51.* This part contains general duties of telecommunications carriers to provide for interconnection with other telecommunications carriers.

(h) *Part 68.* This part contains technical standards for connection of terminal equipment to the telephone network.

§ 27.4 Terms and definitions.

Assigned frequency. The center of the frequency band assigned to a station.

Authorized bandwidth. The maximum width of the band of frequencies permitted to be used by a station. This is normally considered to be the necessary or occupied bandwidth, whichever is greater.

Average terrain. The average elevation of terrain between 3 and 16 kilometers from the antenna site.

Effective Radiated Power (ERP) (in a given direction). The product of the power supplied to the antenna and its gain relative to a half-wave dipole in a given direction.

Equivalent Isotropically Radiated Power (EIRP). The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Fixed service. A radio communication service between specified fixed points.

Fixed station. A station in the fixed service.

Land mobile service. A mobile service between base stations and land mobile stations, or between land mobile stations.

Land mobile station. A mobile station in the land mobile service capable of surface movement within the geographic limits of a country or continent.

Land station. A station in the mobile service not intended to be used while in motion.

Mobile service. A radio communication service between mobile and land stations, or between mobile stations.

Mobile station. A station in the mobile service intended to be used while in motion or during halts at unspecified points.

National Geodetic Reference System (NGRS). The name given to all geodetic control data contained in the National Geodetic Survey (NGS) data base. (Source: National Geodetic Survey, U.S. Department of Commerce)

Radiodetermination. The determination of the position, velocity and/or other characteristics of an object, or the obtaining of information relating to these parameters, by means of the propagation properties of radio waves.

Radiolocation. Radiodetermination used for purposes other than those of radionavigation.

Radionavigation. Radiodetermination used for the purpose of navigation, including obstruction warning.

Satellite Digital Audio Radio Service (satellite DARS). A radiocommunication service in which compact disc quality programming is digitally transmitted by one or more space stations.

Wireless communications service. A radiocommunication service that encompasses fixed, mobile, satellite DARS, and radiolocation services.

§ 27.5 Frequencies.

The following frequencies are available for WCS.

(a) Two paired channel blocks are available for assignment on a Major Economic Area basis as follows:

Block A: 2305–2310 and 2350–2355 MHz; and
Block B: 2310–2315 and 2355–2360 MHz.

(b) Two unpaired channel blocks are available for assignment on a Regional Economic Area Grouping basis as follows:

Block C: 2315–2320 MHz; and
Block D: 2345–2350 MHz.

§ 27.6 Service areas.

WCS service areas are Major Economic Areas (MEAs) and Regional Economic Area Groupings (REAGs) as defined below. Both MEAs and REAGs are based on the U.S. Department of Commerce's 172 Economic Areas (EAs). See 60 FR 13114 (March 10, 1995). In addition, the Commission shall separately license Guam and the Northern Mariana Islands, Puerto Rico and the United States Virgin Islands, American Samoa, and the Gulf of Mexico, which have been assigned Commission-created EA numbers 173–176, respectively. Maps of the EAs, MEAs, and REAGs and the Federal Register Notice that established the 172 EAs are available for public inspection and copying at the Commercial Wireless Division Public Reference Room, room 5608, 2025 M Street, NW, Washington, DC.

(a) The 52 MEAs are composed of one or more EAs and the 12 REAGs are composed of one or more MEAs, as defined in the table below:

REAGs	MEAs	EAs
1 (Northeast)	1 (Boston)	1–3.
	2 (New York City)	4–7, 10.
	3 (Buffalo)	8.
	4 (Philadelphia)	11–12.

REAGs	MEAs	EAs
2 (Southeast)	5 (Washington)	13–14.
	6 (Richmond)	15–17, 20.
	7 (Charlotte-Greensboro-Greenville-Raleigh)	18–19, 21–26, 41–42, 46.
	8 (Atlanta)	27–28, 37–40, 43.
	9 (Jacksonville)	29, 35.
	10 (Tampa-St. Petersburg-Orlando)	30, 33–34.
	11 (Miami)	31–32.
3 (Great Lakes)	12 (Pittsburgh)	9, 52–53.
	13 (Cincinnati-Dayton)	48–50.
	14 (Columbus)	51.
	15 (Cleveland)	54–55.
	16 (Detroit)	56–58, 61–62.
	17 (Milwaukee)	59–60, 63, 104–105, 108.
	18 (Chicago)	64–66, 68, 97, 101.
	19 (Indianapolis)	67.
	20 (Minneapolis-St. Paul)	106–107, 109–114, 116.
	21 (Des Moines-Quad Cities)	100, 102–103, 117.
4 (Mississippi Valley)	22 (Knoxville)	44–45.
	23 (Louisville-Lexington-Evansville)	47, 69–70, 72.
	24 (Birmingham)	36, 74, 78–79.
	25 (Nashville)	71.
	26 (Memphis-Jackson)	73, 75–77.
	27 (New Orleans-Baton Rouge)	80–85.
	28 (Little Rock)	90–92, 95.
	29 (Kansas City)	93, 99, 123.
	30 (St. Louis)	94, 96, 98.
5 (Central)	31 (Houston)	86–87, 131.
	32 (Dallas-Fort Worth)	88–89, 127–130, 135, 137–138.
	33 (Denver)	115, 140–143.
	34 (Omaha)	118–121.
	35 (Wichita)	122.
	36 (Tulsa)	124.
	37 (Oklahoma City)	125–126.
	38 (San Antonio)	132–134.
	39 (El Paso-Albuquerque)	136, 139, 155–157.
	40 (Phoenix)	154, 158–159.
6 (West)	41 (Spokane-Billings)	144–147, 168.
	42 (Salt Lake City)	148–150, 152.
	43 (San Francisco-Oakland-San Jose)	151, 162–165.
	44 (Los Angeles-San Diego)	153, 160–161.
	45 (Portland)	166–167.
	46 (Seattle)	169–170.
7 (Alaska)	47 (Alaska)	171.
8 (Hawaii)	48 (Hawaii)	172.
9 (Guam and the Northern Mariana Islands)	49 (Guam and the Northern Mariana Islands)	173.
10 (Puerto Rico and U.S. Virgin Islands)	50 (Puerto Rico and U.S. Virgin Islands)	174.
11 (American Samoa)	51 (American Samoa)	175.
12 (Gulf of Mexico)	52 (Gulf of Mexico)	176.

(b) The Gulf of Mexico EA extends from 12 nautical miles off the U.S. Gulf coast outward into the Gulf.

Subpart B—Applications and Licenses

§ 27.11 Initial authorization.

(a) An applicant must file an application for an initial WCS authorization in each market and channel block desired. Applicants are permitted to list all markets and channel blocks in a single application where all requisite exhibits and justifications are identical.

(b) The initial WCS authorizations shall be granted for 10 megahertz of spectrum in accordance with § 27.5. Authorizations for Blocks A and B will be based on Major Economic Areas (MEAs), as shown in § 27.6. Authorizations for Blocks C and D will be based on Regional Economic Area Groupings (REAGs), as shown in § 27.6. Applications for individual sites are not required and will not be accepted, except where required for environmental assessments, in accordance with § 27.63.

§ 27.12 Eligibility.

Any entity, other than those precluded by section 310 of the Communications Act of 1934, as amended, 47 U.S.C. section 310, is eligible to hold a license under this part.

§ 27.13 License period.

Initial WCS authorizations will have a term not to exceed ten years from the date of original issuance or renewal.

§ 27.14 Construction requirements; Criteria for comparative renewal proceedings.

(a) WCS licensees must make a showing of ''substantial service'' in their license area within ten years of being licensed. ''Substantial'' service is defined as service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal. Failure by any licensee to meet this requirement will result in forfeiture of the license and the licensee will be ineligible to regain it.

(b) A renewal applicant involved in a comparative renewal proceeding shall receive a preference, commonly referred to as a renewal expectancy, which is the most important comparative factor to be considered in the proceeding, if its past

record for the relevant license period demonstrates that:

(1) The renewal applicant has provided ''substantial'' service during its past license term; and

(2) The renewal applicant has substantially complied with applicable FCC rules, policies and the Communications Act of 1934, as amended.

(c) In order to establish its right to a renewal expectancy, a WCS renewal applicant involved in a comparative renewal proceeding must submit a showing explaining why it should receive a renewal expectancy. At a minimum, this showing must include:

(1) A description of its current service in terms of geographic coverage and population served;

(2) An explanation of its record of expansion, including a timetable of new construction to meet changes in demand for service;

(3) A description of its investments in its WCS system; and

(4) Copies of all FCC orders finding the licensee to have violated the Communications Act or any FCC rule or policy; and a list of any pending proceedings that relate to any matter described in this paragraph.

(d) In making its showing of entitlement to a renewal expectancy, a renewal applicant may claim credit for any system modification applications that were pending on the date it filed its renewal application. Such credit will not be allowed if the modification application is dismissed or denied.

§ 27.15 Geographic partitioning and spectrum disaggregation.

(a) *Eligibility.* (1) Parties seeking approval for partitioning and disaggregation shall request from the Commission an authorization for partial assignment of a license pursuant to section 27.324.

(2) WCS licensees may apply to partition their licensed geographic service area or disaggregate their licensed spectrum at any time following the grant of their licenses.

(b) *Technical Standards*—(1) *Partitioning.* In the case of partitioning, requests for authorization for partial assignment of a license must include, as attachments, a description of the partitioned service area and a calculation of the population of the partitioned service area and the licensed geographic service area. The partitioned service area shall be defined by coordinate points at every 3 degrees along the partitioned service area unless an FCC recognized service area is utilized (i.e., Major Trading Area, Basic Trading Area, Metropolitan Service Area, Rural Service Area, Economic Area, or Major Economic Area) or county lines are followed. The geographic coordinates must be specified in degrees, minutes, and seconds to the nearest second of latitude and longitude and must be based upon the 1927 North American Datum (NAD27). Applicants may supply geographical coordinates based on 1983 North American Datum (NAD83) in addition to those required (NAD27). In the case where an FCC recognized service area or county lines are utilized, applicants need only list the specific area(s) (through use of FCC designations or county names) that constitute the partitioned area.

(2) *Disaggregation.* Spectrum may be disaggregated in any amount.

(3) *Combined partitioning and disaggregation.* The Commission will consider requests for partial assignment of licenses that propose combinations of partitioning and disaggregation.

(4) *Signal levels.* For purposes of partitioning and disaggregation, WCS systems must be designed so as not to exceed a signal level of 47 dByV/m at the licensee's service area boundary, unless the affected adjacent service area licensees have agreed to a different signal level. See section 27.55.

(c) *Unjust Enrichment.*—(1) *Bidding credits.* Licensees that received a bidding credit and partition their licenses or disaggregate their spectrum to entities not meeting the eligibility standards for such a bidding credit, will be subject to the provisions concerning unjust enrichment as set forth in section 27.209(c).

(2) *Apportioning unjust enrichment payments.* Unjust enrichment payments for partitioned license areas shall be calculated based upon the ratio of the population of the partitioned license area to the overall population of the license area and by utilizing the most recent census data. Unjust enrichment payments for disaggregated spectrum shall be calculated based upon the ratio of the amount of spectrum disaggregated to the amount of spectrum held by the licensee.

(d) *License term*. The license term for a partitioned license area and for disaggregated spectrum shall be the remainder of the original licensee's license term as provided for in § 27.13.

Subpart C—Technical Standards

§ 27.51 Equipment authorization.

(a) Each transmitter utilized for operation under this part and each transmitter marketed, as set forth in § 2.803 of this chapter, must be of a type that has been authorized by the Commission under its type acceptance procedure.

(b) The Commission periodically publishes a list of type accepted equipment, entitled ''Radio Equipment List, Equipment Accepted for Licensing.'' Copies of this list are available for public reference at the Commission's offices in Washington, DC, at each of its field offices, and may be ordered from its copy contractor.

(c) Any manufacturer of radio transmitting equipment to be used in these services may request equipment authorization following the procedures set forth in subpart J of part 2 of this chapter. Equipment authorization for an individual transmitter may be requested by an applicant for a station authorization by following the procedures set forth in part 2 of this chapter. Such equipment if approved or accepted will not normally be included in the Commission's Radio Equipment List but will be individually enumerated on the station authorization.

§ 27.52 RF safety.

Licensees and manufacturers are subject to the radio frequency radiation exposure requirements specified in sections 1.1307(b), 2.1091, and 2.1093 of this chapter, as appropriate. Applications for equipment authorization of mobile or portable devices operating under this section must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Technical information showing the basis for this statement must be submitted to the Commission upon request.

§ 27.53 Emission limits.

(a) The power of any emission outside the licensee's bands of operation shall be attenuated below the transmitter power (p) within the licensed bands of operation by the following amounts:

(1) *For fixed operations, including radiolocation:* By a factor not less than 80 + 10 log (p) dB on all frequencies between 2320 and 2345 MHz.

(2) *For mobile operations, including radiolocation:* By a factor not less than 110 + 10 log (p) dB on all frequencies between 2320 and 2345 MHz.

(3) *For fixed and mobile operations, including radiolocation:* By a factor not less than 70 + 10 log (p) dB on all frequencies below 2300 MHz and on all frequencies above 2370 MHz; and not less than 43 + 10 log (p) dB on all frequencies between 2300 and 2320 MHz and on all frequencies between 2345 and 2370 MHz that are outside the licensed bands of operation.

(4) For the purposes of this section, radiolocation shall be classified as either a fixed or mobile service, depending upon the application.

(5) Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or less, but at least one percent of the emission bandwidth of the fundamental emission of the transmitter, provided the measured energy is integrated over a 1 MHz bandwidth.

(6) In complying with the requirements in §§ 27.53(a)(1) and 27.53(a)(2), WCS equipment that uses opposite sense circular polarization from that used by satellite DARS systems in the 2320–2345 MHz band shall be permitted an allowance of 10 dB.

(7) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the edges, both upper and lower, of the licensee's bands of operation as the design permits.

(8) The measurements of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power.

(9) The above out-of-band emissions limits may be modified by the private contractual agreement of the affected licensees, who shall maintain a copy of the agreement in their station files and disclose it to prospective assignees or transferees or, upon request, to the Commission.

(b) *For WCS satellite DARS operations:* The limits set forth in section 25.202(f) of this chapter apply, except that satellite DARS operations are limited to a maximum power flux density of −197 dBW/m2/4 kHz in the 2370–2390 MHz band at Arecibo, Puerto Rico.

(c) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section.

§ 27.54 Frequency stability.

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

§ 27.55 Field strength limits.

The predicted or measured median field strength at any location on the border of a WCS service area shall not exceed 47 dBμV/m unless the parties agree to a different field strength. This value applies to both the initially offered MEA and REAG service areas and to partitioned service areas.

§ 27.56 Antenna structures; air navigation safety.

A licensee that owns its antenna structure(s) must not allow such antenna structure(s) to become a hazard to air navigation. In general, antenna structure owners are responsible for registering antenna structures with the FCC if required by part 17 of this chapter, and for installing and maintaining any required marking and lighting. However, in the event of default of this responsibility by an antenna structure owner, the FCC permittee or licensee authorized to use an affected antenna structure will be held responsible by the FCC for ensuring that the antenna structure continues to meet the requirements of part 17 of this chapter. See § 17.6 of this chapter.

(a) *Marking and lighting.* Antenna structures must be marked, lighted and maintained in accordance with part 17 of this chapter and all applicable rules and requirements of the Federal Aviation Administration. For any construction or alteration that would exceed the requirements of section 17.7 of this chapter, licensees must notify the appropriate Regional Office of the Federal Aviation Administration (FAA Form 7460–1) and file a request for antenna height clearance and obstruction marking and lighting specifications (FCC Form 854) with the FCC, WTB, 1270 Fairfield Road, Gettysburg, PA 17325.

(b) *Maintenance contracts.* Antenna structure owners (or licensees and permittees, in the event of default by an antenna structure owner) may enter into contracts with other entities to monitor and carry out necessary maintenance of antenna structures. Antenna structure owners (or licensees and permittees, in the event of default by an antenna structure owner) that make such contractual arrangements continue to be responsible for the maintenance of antenna structures in regard to air navigation safety.

§ 27.57 International coordination.

WCS operations in the border areas shall be subject to coordination with those countries and provide protection to non-U.S. operations in the 2305–2320 and 2345–2360 MHz bands as appropriate. In addition, satellite DARS operations in WCS spectrum shall be subject to international satellite coordination procedures.

§ 27.59 Environmental requirements.

WCS operations that may have a significant environmental impact as defined by §§ 1.1301 through 1.1319 of this chapter, must file an FCC Form 600 and supply specific technical information about their proposed site prior to construction of such site as well as an environmental assessment (EA) in accordance with §§ 1.1301 through 1.1319 of this chapter. Such application will be placed on public notice in accordance with § 27.316 and may not be constructed or operated prior to a finding of no significant impact (FONSI) being issued and placed on public notice by the FCC.

§ 27.61 Quiet zones.

Quiet zones are those areas where it is necessary to restrict radiation so as to minimize possible impact on the operations of radio astronomy or other facilities that are highly sensitive to interference. The areas involved and procedures required are as follows:

(a) *NRAO, NRRO.* The requirements of this paragraph are intended to minimize possible interference at the National Radio Astronomy Observatory site located at Green Bank, Pocahontas County, West Virginia, and at the Naval Radio Research Observatory site at Sugar Grove, Pendleton County, West Virginia. WCS licensees planning to construct and operate a new or modified WCS station at a permanent fixed location within the area bounded by N.39°15′ on the north, W.78°30′ on the east, N.37°30′ on the south, and W.80°30′ on the west must notify the Director, National Radio Astronomy Observatory, Post Office Box No. 2, Green Bank, WV 24944, in writing, of the technical details of the proposed operation. The notification must include the geographical coordinates of the antenna location, the antenna height, antenna directivity (if any), the channel, the emission type and power.

(b) *Table Mountain.* The requirements of this paragraph are intended to minimize possible interference at the Table Mountain Radio Receiving Zone of the Research Laboratories of the U.S. Department of Commerce located in Boulder County, Colorado.

(1) WCS licensees planning to construct and operate a new or modified WCS station at a permanent fixed location in the vicinity of Boulder County, Colorado are advised to give consideration, prior to filing applications, to the need to protect the Table Mountain Radio Receiving Zone from interference. To prevent degradation of the present ambient radio signal level at the site, the U.S. Department of Commerce seeks to ensure that the field strengths of any radiated signals (excluding reflected signals) received on this 1800 acre site (in the vicinity of coordinates 40°07′50″ North Latitude, 105°14′40″ West

Longitude) resulting from new assignments (other than mobile stations) or from the modification or relocation of existing facilities do not exceed the values given in Table C–3.

TABLE C–3—FIELD STRENGTH LIMITS FOR TABLE MOUNTAIN

Frequency range	Field strength	Power flux density
890 to 3000 MHz.	1 mV/m	-85.8 dBW/m^2

Note: Equivalent values of power flux density are calculated assuming free space characteristic impedance of 376.7Ω (120πΩ). (120).

(2) Advance consultation is recommended, particularly for WCS licensees that have no reliable data to indicate whether the field strength or power flux density figures in the above table would be exceeded by their proposed radio facilities. In general, coordination is recommended for:

(i) Stations located within 2.4 kilometers (1.5 miles);

(ii) Stations located within 4.8 kilometers (3 miles) transmitting with 50 watts or more effective radiated power (ERP) in the primary plane of polarization in the azimuthal direction of the Table Mountain Radio Receiving Zone;

(iii) Stations located within 16 kilometers (10 miles) transmitting with 1 kW or more ERP in the primary plane of polarization in the azimuthal direction of Table Mountain Radio Receiving Zone;

(iv) Stations located within 80 kilometers (50 miles) transmitting with 25 kW or more ERP in the primary plane of polarization in the azimuthal direction of Table Mountain Receiving Zone.

(3) WCS licensees are urged to communicate with the Radio Frequency Management Coordinator, U.S. Department of Commerce, Research Support Services NOAAR/E5X2, Boulder Laboratories, Boulder, CO 80303; telephone (303) 497–6548, in advance of construction and operation of such facilities.

(c) *Federal Communications Commission protected field offices.* The requirements of this paragraph are intended to minimize possible interference to FCC monitoring activities.

(1) WCS licensees planning to construct and operate a new or modified WCS station at a permanent fixed location in the vicinity of an FCC protected field office are advised to give consideration to the need to avoid interfering with the monitoring activities of that office. FCC protected field offices are listed in § 0.121 of this chapter.

(2) Applications for stations (except mobile stations) that could produce on any channel a direct wave fundamental field strength of greater than 10 mV/m (−65.8 dBW/m^2 power flux density assuming a free space characteristic impedance of 120πΩ) in the authorized bandwidth at the protected field office must be examined by WCS licensees to determine the potential for interference with monitoring activities.

(3) In the event that the calculated field strength exceeds 10 mV/m at the protected field office site, or if there is any question whether field strength levels might exceed that level, advance consultation with the FCC to discuss possible measures to avoid interference to monitoring activities should be considered. WCS licensees may communicate with: Chief, Compliance and Information Bureau, Federal Communications Commission, Washington, DC 20554.

(4) Advance consultation is recommended for WCS licensees that have no reliable data to indicate whether the field strength or power flux density figure indicated would be exceeded by their proposed radio facilities. In general, coordination is recommended for:

(i) Stations located within 2.4 kilometers (1.5 miles);

(ii) Stations located within 4.8 kilometers (3 miles) with 50 watts or more average effective radiated power (ERP) in the primary plane of polarization in the azimuthal direction of the protected field offices.

(iii) Stations located within 16 kilometers (10 miles) with 1 kW or more average ERP in the primary plane of polarization in the azimuthal direction of the protected field office;

(iv) Stations located within 80 kilometers (50 miles) with 25 kW or more average ERP in the primary plane of polarization in the azimuthal direction of the protected field office;

(5) Advance coordination for stations transmitting on channels above 1000 MHz is recommended only if the proposed station is in the vicinity of a protected field office designated as a satellite monitoring facility in § 0.121 of this chapter.

(6) The FCC will not screen applications to determine whether advance consultation has taken place. However, such consultation may serve to avoid the need for later modification of the authorizations of stations that interfere with monitoring activities at protected field offices.

§ 27.63 Disturbance of AM broadcast station antenna patterns.

WCS licensees that construct or modify towers in the immediate vicinity of AM broadcast stations are responsible for measures necessary to correct disturbance of the AM station antenna pattern which causes operation outside of the radiation parameters specified by the FCC for the AM station, if the disturbance occurred as a result of such construction or modification.

(a) *Non-directional AM stations.* If tower construction or modification is planned within 1 kilometer (0.6 mile) of a non-directional AM broadcast station tower, the WCS licensee must notify the licensee of the AM broadcast station in advance of the planned construction or modification. Measurements must be made to determine whether the construction or modification would affect the AM station antenna pattern. The WCS licensee is responsible for the installation and continued maintenance of any detuning apparatus necessary to restore proper non-directional performance of the AM station tower.

(b) *Directional AM stations.* If tower construction or modification is planned within 3 kilometers (1.9 miles) of a directional AM broadcast station array, the WCS licensee must notify the licensee of the AM broadcast station in advance of the planned construction or modification. Measurements must be made to determine whether the construction or modification would affect the AM station antenna pattern. The WCS licensee is responsible for the installation and continued maintenance of any detuning apparatus necessary to restore proper performance of the AM station array.

§ 27.64 Protection from interference.

Wireless Communications Service (WCS) stations operating in full accordance with applicable FCC rules and the terms and conditions of their authorizations are normally considered to be non-interfering. If the FCC determines, however, that interference which significantly interrupts or degrades a radio service is being caused, it may, after notice and an opportunity for a hearing, require modifications to any WCS station as necessary to eliminate such interference.

(a) *Failure to operate as authorized.* Any licensee causing interference to the service of other stations by failing to operate its station in full accordance with its authorization and applicable FCC rules shall discontinue all transmissions, except those necessary for the immediate safety of life or property, until it can bring its station

into full compliance with the authorization and rules.

(b) *Intermodulation interference.* Licensees should attempt to resolve such interference by technical means.

(c) *Situations in which no protection is afforded.* Except as provided elsewhere in this part, no protection from interference is afforded in the following situations:

(1) *Interference to base receivers from base or fixed transmitters.* Licensees should attempt to resolve such interference by technical means or operating arrangements.

(2) *Interference to mobile receivers from mobile transmitters.* No protection is provided against mobile-to-mobile interference.

(3) *Interference to base receivers from mobile transmitters.* No protection is provided against mobile-to-base interference.

(4) *Interference to fixed stations.* Licensees should attempt to resolve such interference by technical means or operating arrangements.

(5) *Anomalous or infrequent propagation modes.* No protection is provided against interference caused by tropospheric and ionospheric propagation of signals.

Subpart D—Competitive Bidding Procedures for WCS

§ 27.201 WCS subject to competitive bidding.

Mutually exclusive initial applications to provide WCS service are subject to competitive bidding procedures. The procedures set forth in part 1, subpart Q of this chapter will apply unless otherwise specified in this part.

§ 27.202 Competitive bidding mechanisms.

In addition to the provisions of § 1.2104(a) through (f), (h) and (i) of this chapter, the following provision will apply to WCS: Where a tie bid occurs, the high bidder will be determined by the order in which the bids were received by the Commission.

§ 27.203 Withdrawal, default and disqualification payments.

When the Commission conducts a simultaneous multiple round auction pursuant to § 27.202, the Commission will impose payments on bidders who withdraw high bids during the course of an auction, or who default on payments due after an auction closes or who are disqualified. When the amount of such a payment cannot be determined, a deposit of up to 20 percent of the amount bid on the license will be required.

(a) Bid withdrawal prior to close of auction. A bidder who withdraws a high bid during the course of an auction will be subject to a payment equal to the difference between the amount bid and the amount of the winning bid the next time the license is offered by the Commission. No withdrawal payment would be assessed if the subsequent winning bid exceeds the withdrawn bid. This payment amount will be deducted from any upfront payments or down payments that the withdrawing bidder has deposited with the Commission.

(b) Default or disqualification after close of auction. If a high bidder defaults or is disqualified after the close of such an auction, the defaulting bidder will be subject to the payment in paragraph (a) of this section plus an additional payment equal to 3 percent of the subsequent winning bid. If the subsequent winning bid exceeds the defaulting bidder's bid amount, the 3 percent payment will be calculated based on the defaulting bidder's bid amount. These amounts will be deducted from any upfront payments or down payments that the defaulting or disqualified bidder has deposited with the Commission.

§ 27.204 Bidding application and certification procedures; prohibition of collusion.

(a) *Submission of Short-Form Application (FCC Form 175).* In order to be eligible to bid, an applicant must timely submit, by means of electronic filing, a short-form application (FCC Form 175). Unless otherwise provided by public notice, the Form 175 need not be accompanied by an upfront payment (see § 27.205).

(1) All Form 175s will be due on the date specified by public notice.

(2) The Form 175 must contain the following information:

(i) Identification of each license on which the applicant wishes to bid;

(ii) The applicant's name, if the applicant is an individual. If the applicant is a corporation, then the short-form application will require the name and address of the corporate office and the name and title of an officer or director. If the applicant is a partnership, then the application will require the names, citizenship and addresses of all partners, and, if a partner is not a natural person, then the name and title of a responsible person should be included as well. If the applicant is a trust, then the name and address of the trustee will be required. If the applicant is none of the above, then it must identify and describe itself and its principals or other responsible persons;

(iii) The identity of the person(s) authorized to make or withdraw a bid;

(iv) If the applicant applies as a designated entity pursuant to section 27.210(b), a statement to that effect and a declaration, under penalty of perjury, that the applicant is qualified as a designated entity under § 27.210(b).

(v) Certification that the applicant is legally, technically, financially and otherwise qualified pursuant to section 308(b) of the Communications Act of 1934, as amended. The Commission will accept applications certifying that a request for waiver or other relief from the requirements of section 310 is pending;

(vi) Certification that the applicant is in compliance with the foreign ownership provisions of section 310 of the Communications Act of 1934, as amended;

(vii) Certification that the applicant is and will, during the pendency of its application(s), remain in compliance with any service-specific qualifications applicable to the licenses on which the applicant intends to bid including, but not limited to, financial qualifications. The Commission may require certification in certain services that the applicant will, following grant of a license, come into compliance with certain service-specific rules, including, but not limited to, ownership eligibility limitations;

(viii) An exhibit, certified as truthful under penalty of perjury, identifying all parties with whom the applicant has entered into partnerships, joint ventures, consortia or other agreements, arrangements or understandings of any kind relating to the licenses being auctioned, including any such agreements relating to the post-auction market structure;

(ix) Certification under penalty of perjury that it has not entered and will not enter into any explicit or implicit agreements, arrangements or understandings of any kind with any parties other than those identified pursuant to paragraph (a)(2)(viii) of this section regarding the amount of their bids, bidding strategies or the particular licenses on which they will or will not bid; and

(x) Certification under penalty of perjury that it is not in default on any Commission licenses and that it is not delinquent on any extension of credit from any federal agency.

Note to paragraph (a): The Commission may also request applicants to submit additional information for informational purposes to aid in its preparation of required reports to Congress.

(b) Modification and Amendment of Application. Applicants will be

permitted to amend their Form 175 applications to make minor amendments to correct minor errors or defects such as typographical errors. Applicants will also be permitted to amend FCC Form 175 to make changes to the information required by § 27.204(a) (such as ownership changes or changes in the identification of parties to bidding consortia), provided such changes do not result in a change in control of the applicant and do not involve another applicant (or parties in interest to an applicant) who has applied for licenses in any of the same geographic license areas as the applicant. Amendments which change control of the applicant will be considered major amendments. An FCC Form 175 which is amended by a major amendment will be considered to be newly filed and cannot be resubmitted after applicable filing deadlines. See also § 1.2105 of this chapter.

(c) Prohibition of collusion. (1) Except as provided in paragraphs (c)(2), (c)(3) and (c)(4) of this section, after the filing of short-form applications, all applicants are prohibited from cooperating, collaborating, discussing or disclosing in any manner the substance of their bids or bidding strategies, or discussing or negotiating settlement agreements, with other applicants until after the high bidder makes the required down payment, unless such applicants are members of a bidding consortium or other joint bidding arrangement identified on the bidder's short-form application pursuant to § 27.204(a)(2)(viii).

(2) Applicants may modify their short-form applications to reflect formation of consortia or changes in ownership at any time before or during an auction, provided such changes do not result in a change in control of the applicant, and provided that the parties forming consortia or entering into ownership agreements have not applied for licenses in any of the same geographic license areas. Such changes will not be considered major modifications of the application.

(3) After the filing of short-form applications, applicants may make agreements to bid jointly for licenses, provided the parties to the agreement have not applied for licenses in any of the same geographic license areas.

(4) After the filing of short-form applications, a holder of a non-controlling attributable interest in an entity submitting a short-form application may acquire an ownership interest in, form a consortium with, or enter into a joint bidding arrangement with, other applicants for licenses in the same geographic license area, provided that:

(i) The attributable interest holder certifies to the Commission that it has not communicated and will not communicate with any party concerning the bids or bidding strategies of more than one of the applicants in which it holds an attributable interest, or with which it has a consortium or joint bidding arrangement, and which have applied for licenses in the same geographic license area(s); and

(ii) The arrangements do not result in any change in control of an applicant.

(5) Applicants must modify their short-form applications to reflect any changes in ownership or in the membership of consortia or joint bidding arrangements.

(6) For purposes of this paragraph:

(i) The term ''applicant'' shall include the entity submitting a short-form application to participate in an auction (FCC Form 175), as well as all holders of partnership and other ownership interests and any stock interest amounting to 5 percent or more of the entity, or outstanding stock, or outstanding voting stock of the entity submitting a short-form application, and all officers and directors of that entity; and

(ii) The term ''bids or bidding strategies'' shall include capital calls or requests for additional funds in support of bids or bidding strategies.

§ 27.205 Submission of upfront payments.

(a) Each eligible bidder for WCS licenses subject to auction shall pay an upfront payment pursuant to this chapter and procedures specified by public notice. No interest will be paid on upfront payments.

(b) Upfront payments must be made by wire transfer.

(c) If the applicant does not submit at least the minimum upfront payment, it will be ineligible to bid, its application will be dismissed and any upfront payment it has made will be returned.

(d) The upfront payment(s) of a bidder will be credited toward any down payment required for licenses on which the bidder is the high bidder. Where the upfront payment amount exceeds the required deposit of a winning bidder, the Commission will refund the excess amount after determining that no bid withdrawal payments are owed by that bidder.

(e) In accordance with the provisions of paragraph (d) of this section, in the event a payment is assessed pursuant to § 27.203 for bid withdrawal or default, upfront payments or down payments on deposit with the Commission will be used to satisfy the bid withdrawal or default payment before being applied toward any additional payment obligations that the high bidder may have.

§ 27.206 Submission of down payment and filing of long-form applications.

(a) After bidding has ended, the Commission will identify and notify the high bidder and declare the bidding closed.

(b) Within ten (10) business days after being notified that it is a high bidder on a particular license(s), a high bidder must submit to the Commission's lockbox bank such additional funds (the ''down payment'') as are necessary to bring its total deposits (not including upfront payments applied to satisfy bid withdrawal or default payments) up to twenty (20) percent of its high bid(s). This down payment must be made by wire transfer or cashier's check drawn in U.S. dollars from a financial institution whose deposits are insured by the Federal Deposit Insurance Corporation and must be made payable to the Federal Communications Commission. Down payments will be held by the Commission until the high bidder has been awarded the license and has paid the remaining balance due on the license, in which case it will not be returned, or until the winning bidder is found unqualified to be a licensee or has defaulted, in which case it will be returned, less applicable payments. No interest will be paid on any down payment.

(c) A high bidder that meets its down payment obligations in a timely manner must, within ten (10) business days after being notified that it is a high bidder, submit an additional application (the ''long-form application'') pursuant to the rules governing the service in which the applicant is the high bidder. Notwithstanding any other provision in title 47 of the Code of Federal Regulations to the contrary, high bidders need not submit an additional application filing fee with their long-form applications. Notwithstanding any other provision in Title 47 of the Code of Federal Regulations to the contrary, the high bidder's long-form application must be mailed or otherwise delivered to: Office of the Secretary, Federal Communications Commission, Attention: Auction Application Processing Section, 1919 M Street, NW, Room 222, Washington, DC 20554. An applicant that fails to submit the required long-form application as required under this section, and fails to establish good cause for any late-filed submission, shall be deemed to have defaulted and will be subject to the payments set forth in section 27.203.

(d) As an exhibit to its long-form application, the applicant must provide a detailed explanation of the terms and conditions and parties involved in any bidding consortia, joint venture, partnership or other agreement or arrangement it had entered into relating to the competitive bidding process prior to the time bidding was completed. Such agreements must have been entered into prior to the filing of short-form applications pursuant to § 27.204.

§ 27.207 Procedures for filing petitions to deny against WCS long-form applications.

(a) Within five (5) days after the Commission gives public notice that a long-form application has been accepted for filing, petitions to deny that application may be filed. Any such petitions must contain allegations of fact supported by affidavit of a person or persons with personal knowledge thereof, and be served by hand upon the applicant or its representative.

(b) An applicant may file an opposition to any petition to deny within five (5) days after the deadline for filing petitions to deny. Allegations of fact or denials thereof must be supported by affidavit of a person or persons with personal knowledge thereof, and such opposition must be served by hand upon the petitioner.

(c) If the Commission determines that:

(1) An applicant is qualified and there is no substantial and material issue of fact concerning that determination, it will grant the application;

(2) An applicant is not qualified and that there is no substantial issue of fact concerning that determination, the Commission need not hold a evidentiary hearing and will deny the application; and

(3) Substantial and material issues of fact require a hearing, it will conduct a hearing. The Commission may permit all or part of the evidence to be submitted in written form and may permit employees other than administrative law judges to preside at the taking of written evidence. Such hearing will be conducted on an expedited basis.

§ 27.208 License grant, denial, default, and disqualification.

(a) Unless otherwise specified in these rules, auction winners are required to pay the balance of their winning bids in a lump sum within ten (10) business days following award of the license. Grant of the license will be conditioned on full and timely payment of the winning bid.

(b) If a winning bidder withdraws its bid after the Commission has declared competitive bidding closed or fails to remit the required down payment within ten (10) business days after the Commission has declared competitive bidding closed, the bidder will be deemed to have defaulted, its application will be dismissed, and it will be liable for the default penalty specified in § 27.203. In such event, the Commission may either re-auction the license to existing or new applicants or offer it to the other highest bidders (in descending order) at their final bids. The down payment obligations set forth in § 27.206(b) will apply.

(c) A winning bidder who is found unqualified to be a licensee, fails to remit the balance of its winning bid in a timely manner, or defaults or is disqualified for any reason after having made the required down payment, will be deemed to have defaulted and will be liable for the payment set forth in § 27.203. In such event, the Commission will conduct another auction for the license, affording new parties an opportunity to file applications for the license.

(d) Bidders who are found to have violated the antitrust laws or the Commission's rules in connection with their participation in the competitive bidding process may be subject, in addition to any other applicable sanctions, to forfeiture of their upfront payment, down payment or full bid amount, and may be prohibited from participating in future auctions.

§ 27.209 Designated entities; bidding credits; unjust enrichment.

(a) Designated entities entitled to preferences in the WCS auction are small businesses and very small businesses as defined in § 27.110(b). Designated entities will be eligible for bidding credits, as defined in paragraphs (b) and (c) of this section.

(b) A winning bidder that qualifies as a *small business* may use a bidding credit of 25 percent to lower the cost of its winning bid.

(c) A winning bidder that qualifies as a *very small business* may use a bidding credit of 35 percent to lower the cost of its winning bid.

(d) Unjust Enrichment:

(1) If a small business or very small business (as defined in § 27.210(b)) that utilizes a bidding credit under this section seeks to transfer control or assign an authorization to an entity that is not a small business or a very small business, or seeks to make any other change in ownership that would result in the licensee losing eligibility as a small business or very small business, the small business or very small business must seek Commission approval and reimburse the U.S. Government for the amount of the bidding credit, plus interest based on the rate for ten year U.S. Treasury obligations applicable on the date the license is granted, as a condition of approval of the assignment or transfer of control.

(2) If a very small business (as defined in § 27.210(b)) that utilizes a bidding credit under this section seeks to transfer control or assign an authorization to a small business meeting the eligibility standards for a lower bidding credit, or seeks to make any other change in ownership that would result in the licensee qualifying for a lower bidding credit under this section, the licensee must seek Commission approval and reimburse the U.S. Government for the difference between the amount of the bidding credit obtained by the licensee and the bidding credit for which the assignee, transferee, or licensee is eligible under this section, plus interest based on the rate for ten year U.S. Treasury obligations applicable on the date the license is granted, as a condition of the approval of such assignment, transfer, or other ownership change.

(3) The amount of payments made pursuant to paragraphs (d)(1) and (d)(2) of this section will be reduced over time as follows: A transfer in the first five years of the license term will result in a forfeiture of 100 percent of the value of the bidding credit (or the difference between the bidding credit obtained by the original licensee and the bidding credit for which the post-transfer licensee is eligible); in year 6 of the license term the payment will be 80 percent; in year 7 the payment will be 60 percent; in year 8 the payment will be 40 percent; and in year 9 the payment will be 20 percent. For a transfer occurring in year 10 and thereafter, there will be no assessment.

§ 27.210 Definitions.

(a) Scope. The definitions in this section apply to § 27.209, unless otherwise specified in those sections.

(b) Small Business; Very Small Business; Consortia.

(1) A *small business* is an entity that, together with its affiliates and controlling principals, has average annual gross revenues that are not more than $40 million for the preceding three years.

(2) A *very small business* is an entity that, together with its affiliates and controlling principals, has average annual gross revenues that are not more than $15 million for the preceding three years.

(3) For purposes of determining whether an entity meets the $40 million

average annual gross revenues size standard set forth in paragraph (b)(1) of this section or the $15 million average annual gross revenues size standard set forth in paragraph (b)(2) of this section, the gross revenues of the applicant and its affiliates shall be considered on a cumulative basis and aggregated subject to the following exceptions:

(i) For purposes of paragraphs (b)(1) and (b)(2) of this section, the personal net worth of an applicant and its affiliates is not included in the applicant's gross revenues; and

(ii) For purposes of paragraphs (b)(1) and (b)(2) of this section, Indian tribes or Alaska Regional or Village Corporations organized pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), or entities owned and controlled by such tribes or corporations, are not considered affiliates of an applicant (or licensee) that is owned and controlled by such tribes, corporations or entities, and that otherwise complies with the requirements of paragraphs (b)(1) and (b)(2) of this section, except that gross revenues derived from gaming activities conducted by affiliated entities pursuant to the Indian Gaming Regulatory Act (25 U.S.C. 2701 et seq.) will be counted in determining such applicant's (or licensee's) compliance with the financial requirements of paragraphs (b)(1) and (b)(2) of this section, unless such applicant establishes that it will not receive a substantial unfair competitive advantage because significant legal constraints restrict the applicant's ability to access such gross revenues.

(4) A consortium of small businesses (or a consortium of very small businesses) is a conglomerate organization formed as a joint venture between or among mutually independent business firms, each of which individually satisfies the definition in paragraph (b)(1) of this section or each of which satisfies the definition in paragraph (b)(2) of this section. Where an applicant (or licensee) is a consortium of small businesses, the gross revenues of each small business shall not be aggregated.

(c) *Gross Revenues.* Gross revenues shall mean all income received by an entity, whether earned or passive, before any deductions are made for costs of doing business (*e.g.*, cost of goods sold), as evidenced by audited financial statements for the relevant number of most recently completed calendar years, or, if audited financial statements were not prepared on a calendar-year basis, for the most recently completed fiscal years preceding the filing of the applicant's short-form application (Form 175). If an entity was not in existence for all or part of the relevant period, gross revenues shall be evidenced by the audited financial statements of the entity's predecessor-in-interest or, if there is no identifiable predecessor-in-interest, unaudited financial statements certified by the applicant as accurate. When an applicant does not otherwise use audited financial statements, its gross revenues may be certified by its chief financial officer or its equivalent.

(d) *Affiliate.*—(1) *Basis for affiliation.* An individual or entity is an affiliate of an applicant if such individual or entity:

(i) Directly or indirectly controls or has the power to control the applicant;

(ii) Is directly or indirectly controlled by the applicant;

(iii) Is directly or indirectly controlled by a third party or parties who also control or have the power to control the applicant; or

(iv) Has an ''identity of interest'' with the applicant.

(2) *Nature of control in determining affiliation.* (i) Every business concern is considered to have one or more parties who directly or indirectly control or have the power to control it. Control may be affirmative or negative and it is immaterial whether it is exercised so long as the power to control exists.

Example for paragraph (d)(2)(i). An applicant owning 50 percent of the voting stock of another concern would have negative power to control such concern since such party can block any action of the other stockholders. Also, the bylaws of a corporation may permit a stockholder with less than 50 percent of the voting stock to block any actions taken by the other stockholders in the other entity. Affiliation exists when the applicant has the power to control a concern while at the same time another person, or persons, are in control of the concern at the will of the party or parties with the power of control.

(ii) Control can arise through stock ownership; occupancy of director, officer, or key employee positions; contractual or other business relations; or combinations of these and other factors. A key employee is an employee who, because of his/her position in the concern, has a critical influence in or substantive control over the operations or management of the concern.

(iii) Control can arise through management positions if the voting stock is so widely distributed that no effective control can be established.

Example for paragraph (d)(2)(iii). In a corporation where the officers and directors own various size blocks of stock totaling 40 percent of the corporation's voting stock, but no officer or director has a block sufficient to give him/her control or the power to control and the remaining 60 percent is widely distributed with no individual stockholder having a stock interest greater than 10 percent, management has the power to control. If persons with such management control of the other entity are controlling principals of the applicant, the other entity will be deemed an affiliate of the applicant.

(3) *Identity of interest between and among persons.* Affiliation can arise between or among two or more persons with an identity of interest, such as members of the same family or persons with common investments. In determining if the applicant controls or is controlled by a concern, persons with an identity of interest will be treated as though they were one person.

(i) *Spousal affiliation.* Both spouses are deemed to own or control or have the power to control interests owned or controlled by either of them, unless they are subject to a legal separation recognized by a court of competent jurisdiction in the United States.

(ii) *Kinship affiliation.* Immediate family members will be presumed to own or control or have the power to control interests owned or controlled by other immediate family members. In this context ''immediate family member'' means father, mother, husband, wife, son, daughter, brother, sister, father- or mother-in-law, son- or daughter-in-law, brother- or sister-in-law, step-father or -mother, step-brother or -sister, step-son or -daughter, half-brother or -sister. This presumption may be rebutted by showing that:

(A) The family members are estranged;

(B) The family ties are remote;

(C) The family members are not closely involved with each other in business matters.

Example for paragraph (d)(3)(ii). A owns a controlling interest in Corporation X. A's sister-in-law, B, has a controlling interest in a WCS geographic area license application. Because A and B have a presumptive kinship affiliation, A's interest in Corporation X is attributable to B, and thus to the applicant, unless B rebuts the presumption with the necessary showing.

(4) *Affiliation through stock ownership.* (i) An applicant is presumed to control or have the power to control a concern if he/she owns or controls or has the power to control 50 percent or more of its voting stock.

(ii) An applicant is presumed to control or have the power to control a concern even though he/she owns, controls, or has the power to control less than 50 percent of the concern's voting stock, if the block of stock he/she owns, controls, or has the power to control is large as compared with any other outstanding block of stock.

(iii) If two or more persons each owns, controls or has the power to control less

than 50 percent of the voting stock of a concern, such minority holdings are equal or approximately equal in size, and the aggregate of these minority holdings is large as compared with any other stock holding, the presumption arises that each one of these persons individually controls or has the power to control the concern; however, such presumption may be rebutted by a showing that such control or power to control, in fact, does not exist.

(5) *Affiliation arising under stock options, convertible debentures, and agreements to merge.* Stock options, convertible debentures, and agreements to merge (including agreements in principle) are generally considered to have a present effect on the power to control the concern. Therefore, in making a size determination, such options, debentures, and agreements will generally be treated as though the rights held thereunder had been exercised. However, neither an affiliate nor an applicant can use such options and debentures to appear to terminate its control over another concern before it actually does so.

Example 1 for paragraph (d)(5). If company B holds an option to purchase a controlling interest in company A, who holds a controlling interest in a WCS geographic area license application, the situation is treated as though company B had exercised its rights and had become owner of a controlling interest in company A. The gross revenues of company B must be taken into account in determining the size of the applicant.

Example 2 for paragraph (d)(5). If a large company, BigCo, holds 70% (70 of 100 outstanding shares) of the voting stock of company A, who holds a controlling interest in a WCS geographic area license application, and gives a third party, SmallCo, an option to purchase 50 of the 70 shares owned by BigCo, BigCo will be deemed to be an affiliate of company A, and thus the applicant, until SmallCo actually exercises its options to purchase such shares. In order to prevent BigCo from circumventing the intent of the rule, which requires such options to be considered on a fully diluted basis, the option is not considered to have present effect in this case.

Example 3 for paragraph (d)(5). If company A has entered into an agreement to merge with company B in the future, the situation is treated as though the merger has taken place.

(6) *Affiliation under voting trusts.* (i) Stock interests held in trust shall be deemed controlled by any person who holds or shares the power to vote such stock, to any person who has the sole power to sell such stock, and to any person who has the right to revoke the trust at will or to replace the trustee at will.

(ii) If a trustee has a familial, personal or extra-trust business relationship to the grantor or the beneficiary, the stock interests held in trust will be deemed controlled by the grantor or beneficiary, as appropriate.

(iii) If the primary purpose of a voting trust, or similar agreement, is to separate voting power from beneficial ownership of voting stock for the purpose of shifting control of or the power to control a concern in order that such concern or another concern may meet the Commission's size standards, such voting trust shall not be considered valid for this purpose regardless of whether it is or is not recognized within the appropriate jurisdiction.

(7) *Affiliation through common management.* Affiliation generally arises where officers, directors, or key employees serve as the majority or otherwise as the controlling element of the board of directors and/or the management of another entity.

(8) *Affiliation through common facilities.* Affiliation generally arises where one concern shares office space and/or employees and/or other facilities with another concern, particularly where such concerns are in the same or related industry or field of operations, or where such concerns were formerly affiliated, and through these sharing arrangements one concern has control, or potential control, of the other concern.

(9) *Affiliation through contractual relationships.* Affiliation generally arises where one concern is dependent upon another concern for contracts and business to such a degree that one concern has control, or potential control, of the other concern.

(10) *Affiliation under joint venture arrangements.* (i) A joint venture for size determination purposes is an association of concerns and/or individuals, with interests in any degree or proportion, formed by contract, express or implied, to engage in and carry out a single, specific business venture for joint profit for which purpose they combine their efforts, property, money, skill and knowledge, but not on a continuing or permanent basis for conducting business generally. The determination whether an entity is a joint venture is based upon the facts of the business operation, regardless of how the business operation may be designated by the parties involved. An agreement to share profits/losses proportionate to each party's contribution to the business operation is a significant factor in determining whether the business operation is a joint venture.

(ii) The parties to a joint venture are considered to be affiliated with each other.

Subpart E—Application, Licensing, and Processing Rules for WCS

§ 27.301 Authorization required.

No person shall use or operate any device for the transmission of energy or communications by radio in the services authorized by this part except as provided in this part.

§ 27.302 Eligibility.

(a) General. Authorizations will be granted upon proper application if:

(1) The applicant is qualified under the applicable laws and the regulations, policies and decisions issued under those laws, including § 27.12;

(2) There are frequencies available to provide satisfactory service; and

(3) The public interest, convenience or necessity would be served by a grant.

(b) Alien Ownership. A WCS authorization may not be granted to or held by an entity not meeting the requirements of section 310 of the Communications Act of 1934, as amended, 47 U.S.C. section 310 insofar as applicable to the particular service in question.

§ 27.303 Formal and informal applications.

(a) Except for an authorization under any of the conditions stated in section 308(a) of the Communications Act of 1934 (47 U.S.C. 308(a)), the Commission may grant only upon written application received by it, the following authorization: station licenses; modifications of licenses; renewals of licenses; transfers and assignments of station licenses, or any right thereunder.

(b) Except as may be otherwise permitted by this part, a separate written application shall be filed for each instrument of authorization requested. Applications may be:

(1) ''Formal applications'' where the Commission has prescribed in this part a standard form; or

(2) ''Informal applications'' (normally in letter form) where the Commission has not prescribed a standard form.

(c) An informal application will be accepted for filing only if:

(1) A standard form is not prescribed or clearly applicable to the authorization requested;

(2) It is a document submitted, in duplicate, with a caption which indicates clearly the nature of the request, radio service involved, location of the station, and the application file number (if known); and

(3) It contains all the technical details and informational showings required by the rules and states clearly and completely the facts involved and authorization desired.

§ 27.304 Filing of WCS applications, fees, and numbers of copies.

(a) As prescribed by § 27.307, standard formal application forms applicable to the WCS may be obtained from either:

(1) Federal Communications Commission, Washington, DC 20554; or

(2) By calling the Commission's Forms Distribution Center, (202) 418–3676.

(b) Applications for the initial provision of WCS service must be filed on FCC Form 175 in accordance with the rules in § 27.204 and part 1, subpart Q of this chapter. In the event of mutual exclusivity between applicants filing FCC Form 175, only auction winners will be eligible to file subsequent long form applications on FCC Form 600 for initial WCS licenses. Mutually exclusive applications filed on Form 175 are subject to competitive bidding under those rules.

(c) All applications for WCS radio station authorizations (other than applications for initial provision of WCS service filed on FCC Form 175) shall be submitted for filing to: Federal Communications Commission, Wireless Telecommunications Bureau, 1270 Fairfield Road, Gettysburg, PA 17325, Attention: WCS Processing Section.

(d) All correspondence or amendments concerning a submitted application shall clearly identify the name of the applicant, FCC Account Number or Commission file number (if known) or station call sign of the application involved, and may be sent directly to the Wireless Telecommunications Bureau, 1270 Fairfield Road, Gettysburg, PA 17325, Attention: WCS Processing Section.

(e) Except as otherwise specified, all applications, amendments, correspondence, pleadings and forms (with the exception of FCC Form 175, which is to be filed electronically pursuant to § 27.204) shall be submitted on one original paper copy and with a 3.5-inch floppy disk containing all attachments, and any other supporting documentation in separate ASCII text (.TXT) file formats. Those filing any amendments, correspondence, pleadings, and forms must simultaneously submit the original hard copy which must be stamped ''original''. In addition to the original hard copy, those filing pleadings, including pleadings under § 1.2108 of this chapter shall also submit 2 paper copies as provided in § 1.51 of this chapter. Applicants who file electronically will not be required to follow these procedures, but instead are required to follow all instructions for electronic filing detailed by the FCC in any subsequent public notices.

(f) Subsequent application by auction winners or non-mutually exclusive applicants for WCS radio station(s) under this part 27. FCC Form 600 shall be submitted by each auction winner for each WCS license applied for on FCC Form 175. In the event that mutual exclusivity does not exist between applicants filing FCC Form 175, the Commission will so inform the applicant and the applicant will also file FCC Form 600. Blanket licenses are granted for each market frequency block. Applications for individual sites are not needed and will not be accepted. See § 27.11.

§ 27.305 [Reserved].

§ 27.306 Miscellaneous forms.

(a) Renewal of station licenses. Except for renewal of special temporary authorizations, FCC Form 405 (''Application for Renewal of Station License'') must be filed in duplicate by the licensee between thirty (30) and sixty (60) days prior to the expiration date of the license sought to be renewed.

(b) Assignment of authorization or transfer of control. Assignments of authorization or transfers of control applications are to be filed on the FCC Form 490, ''Application for Assignment of Authorization or Consent to Transfer of Control of License''.

§ 27.307 General application requirements.

(a) Each application (including applications filed on Forms 175 and 600) for a radio station authorization or for consent to assignment or transfer of control in the WCS shall disclose fully the real party or parties in interest and must include the following information:

(1) A list of its subsidiaries, if any. Subsidiary means any business five per cent or more whose stock, warrants, options or debt securities are owned by the applicant or an officer, director, stockholder or key management personnel of the applicant. This list must include a description of each subsidiary's principal business and a description of each subsidiary's relationship to the applicant;

(2) A list of its affiliates, if any. Affiliate is defined in § 27.210(d);

(3) A list of the names, addresses, citizenship and principal business of any person holding five percent or more of each class of stock, warrants, options or debt securities together with the amount and percentage held, and the name, address, citizenship and principal place of business of any person on whose account, if other than the holder, such interest is held. If any of these persons are related by blood or marriage, include such relationship in the statement;

(4) In the case of partnerships, the name and address of each partner, each partner's citizenship and the share or interest participation in the partnership. This information must be provided for all partners, regardless of their respective ownership interests in the partnership. This information must be included an exhibit to the application; and

(b) Each application for a radio station authorization in the WCS must:

(1) Submit the information required by the Commission's rules, requests, and application forms;

(2) Be maintained by the applicant substantially accurate and complete in all significant respects in accordance with the provisions of § 1.65 of this chapter; and

(3) Show compliance with and make all special showings that may be applicable.

(c) Where documents, exhibits, or other lengthy showings already on file with the Commission contain information which is required by an application form, the application may specifically refer to such information, if:

(1) The information previously filed is over one A4 (21 cm x 29.7 cm) or 8.5 x 11 inch (21.6 cm x 27.9 cm) page in length, and all information referenced therein is current and accurate in all significant respects under § 1.65 of this chapter; and

(2) The reference states specifically where the previously filed information can actually be found, including mention of:

(i) The station call sign or application file number whenever the reference is to station files or previously filed applications; and

(ii) The title of the proceeding, the docket number, and any legal citations, whenever the reference is to a docketed proceeding. However, questions on an application form which call for specific technical data, or which can be answered by a ''yes'' or ''no'' or other short answer shall be answered as appropriate and shall not be cross-referenced to a previous filing.

(d) In addition to the general application requirements of subpart F of this part and § 27.204, applicants shall submit any additional documents, exhibits, or signed written statements of fact:

(1) As may be required by these rules; and

(2) As the Commission, at any time after the filing of an application and during the term of any authorization, may require from any applicant,

permittee, or licensee to enable it to determine whether a radio authorization should be granted, denied, or revoked.

(e) Except when the Commission has declared explicitly to the contrary, an informational requirement does not in itself imply the processing treatment of decisional weight to be accorded the response.

§ 27.308 Technical content of applications.

All applications required by this part shall contain all technical information required by the application forms or associated public notice(s). Applications other than initial applications for a WCS license must also comply with all technical requirements of the rules governing the WCS (see subparts C and D of this part as appropriate).

§ 27.310 Waiver of rules.

(a) *Request for waivers.* (1) Waivers of these rules may be granted upon application or by the Commission on its own motion. Requests for waivers shall contain a statement of reasons sufficient to justify a waiver. Waivers will not be granted except upon an affirmative showing:

(i) That the underlying purpose of the rule will not be served, or would be frustrated, by its application in a particular case, and that grant of the waiver is otherwise in the public interest; or

(ii) That the unique facts and circumstances of a particular case render application of the rule inequitable, unduly burdensome or otherwise contrary to the public interest. Applicants must also show the lack of a reasonable alternative.

(2) If the information necessary to support a waiver request is already on file, the applicant may cross-reference to the specific filing where it may be found.

(b) *Denial of waiver, alternate showing required.* If a waiver is not granted, the application will be dismissed as defective unless the applicant has also provided an alternative proposal which complies with the Commission's rules (including any required showings).

§ 27.311 Defective applications.

(a) Unless the Commission shall otherwise permit, an application will be unacceptable for filing and will be returned to the applicant with a brief statement as to the omissions or discrepancies if:

(1) The application is defective with respect to completeness of answers to questions, informational showings, execution, or other matters of a formal character; or

(2) The application does not comply with the Commission's rules, regulations, specific requirements for additional information or other requirements. See also § 27.204.

(b) Some examples of common deficiencies which result in defective applications under paragraph (a) of this section are:

(1) The application is not filled out completely and signed; or

(2) The application (other than an application filed on FCC Form 175) does not include an environmental assessment as required for an action that may have a significant impact upon the environment, as defined in § 1.1307 of this chapter.

(3) The application is filed prior to the public notice issued under § 27.316 announcing the application filing date for the relevant auction or after the cutoff date prescribed in that public notice;

(c) If an applicant is requested by the Commission to file any documents or any supplementary or explanatory information not specifically required in the prescribed application form, a failure to comply with such request within a specified time period will be deemed to render the application defective and will subject it to dismissal.

§ 27.312 Inconsistent or conflicting applications.

While an application is pending and undecided under this part 27, no subsequent inconsistent or conflicting application may be filed by the same applicant, his successor or assignee, or on behalf or for the benefit of the same applicant, his successor or assignee.

§ 27.313 Amendment of applications for Wireless Communications Service (other than applications filed on FCC Form 175).

This section applies to all applications for Wireless Communications Service other than applications filed on FCC Form 175.

(a) Amendments as of right. A pending application may be amended as a matter of right if the application has not been designated for hearing.

(1) Amendments shall comply with § 27.319, as applicable; and

(2) Amendments which resolve interference conflicts or amendments under § 27.319 may be filed at any time.

(b) The Commission or the presiding officer may grant requests to amend an application designated for hearing only if a written petition demonstrating good cause is submitted and properly served upon the parties of record.

(c) Major amendments, minor amendments. The Commission will classify all amendments as minor, unless there is a substantial change in ownership or control. Such an amendment shall be deemed to be a major amendment subject to § 27.316.

(d) If a petition to deny (or other formal objection) has been filed, any amendment, requests for waiver, (or other written communications) shall be served on the petitioner by hand, unless waiver of this requirement is granted pursuant to paragraph (e) of this section. See also § 1.2108 of this chapter.

(e) The Commission may waive the service requirements of paragraph (d) of this section and prescribe such alternative procedures as may be appropriate under the circumstances to protect petitioners' interests and to avoid undue delay in a proceeding, if an applicant submits a request for waiver which demonstrates that the service requirement is unreasonably burdensome.

(f) Any amendment to an application shall be signed and shall be submitted in the same manner, and with the same number of copies, as was the original application. Amendments may be made in letter form if they comply in all other respects with the requirements of this chapter.

(g) An application will be considered to be a newly filed application if it is amended by a major amendment (as defined in this section), except in the following circumstances:

(1) The amendment reflects only a change in ownership or control found by the Commission to be in the public interest; or

(2) The amendment corrects typographical transcription, or similar clerical errors which are clearly demonstrated to be mistakes by reference to other parts of the application, and whose discovery does not create new or increased frequency conflicts.

§ 27.314 Application for temporary authorizations.

In circumstances requiring immediate or temporary use of facilities, request may be made for special temporary authority (STA) to operate new or modified equipment. Such requests may be submitted as informal applications (see § 22.105 of this chapter) and must contain complete details about the proposed operation and the circumstances that fully justify and necessitate the grant of STA. Such requests should be filed in time to be received by the FCC at least 10 days prior to the date of proposed operation or, where an extension is sought, 10 days prior to the expiration date of the existing STA. Requests received less

than 10 days prior to the desired date of operation may be given expedited consideration only if compelling reasons are given, in writing, for the delay in submitting the request. Otherwise, such late-filed requests are considered in turn, but action might not be taken prior to the desired date of operation. Requests for STAs must be accompanied by the proper filing fee.

(a) *Grant without Public Notice.* STAs may be granted without being listed in a Public Notice, or prior to 30 days after such listing, if:

(1) The STA is to be valid for 30 days or less and the applicant does not plan to file an application for regular authorization of the subject operation;

(2) The STA is to be valid for 60 days or less, pending the filing of an application for regular authorization of the subject operation;

(3) The STA is to allow interim operation to facilitate completion of authorized construction or to provide substantially the same service as previously authorized; or

(4) The STA is made upon a finding that there are extraordinary circumstances requiring operation in the public interest and that delay in the institution of such service would seriously prejudice the public interest.

(b) *Limit on STA term.* The FCC may grant STAs valid for a period not to exceed 180 days under the provisions of section 309(f) of the Communications Act of 1934, as amended, (47 U.S.C. section 309(f)) if extraordinary circumstances so require, and pending the filing of an application for regular operation. The FCC may grant extensions of STAs for a period of 180 days, but the applicant must show that extraordinary circumstances warrant such an extension.

§ 27.315 Receipt of application; applications in the Wireless Communications Service filed on FCC Form 175 and other applications in the WCS Service.

(a) All applications for WCS filed pursuant to § 27.304 are given a file number. The assignment of a file number to an application is merely for administrative convenience and does not indicate the acceptance of the application for filing and processing. Such assignment of a file number will not preclude the subsequent return or dismissal of the application if it is found to be defective or not in accordance with the Commission's rules.

(b) Acceptance of an application for filing merely means that it has been the subject of a preliminary review as to completeness. Such acceptance will not preclude the subsequent return or dismissal of the application if it is found to be defective or not in accordance with the Commission's rules.

§ 27.316 Public notice period.

(a) At regular intervals, the Commission may issue a public notice listing:

(1) The acceptance for filing of all applications and major amendments thereto;

(2) Significant Commission actions concerning applications listed as acceptable for filing;

(3) Information which the Commission in its discretion believes of public significance. Such notices are solely for the purpose of informing the public and do not create any rights in an applicant or any other person; or

(4) Special environmental considerations as required by part 1 of this chapter.

(b) The Commission will not grant any application until expiration of a period of seven (7) days following the issuance date of a public notice listing the application, or any major amendments thereto, as acceptable for filing. Provided, that the Commission will not grant an application filed on Form 600 filed either by a winning bidder or by an applicant whose Form 175 application is not mutually exclusive with other applicants, until the expiration of a period of forty (40) days following the issuance of a public notice listing the application, or any major amendments thereto, as acceptable for filing. See also § 27.207.

(c) As an exception to paragraphs (a)(1), (a)(2) and (b) of this section, the public notice provisions are not applicable to applications:

(1) For authorization of a minor technical change in the facilities of an authorized station where such a change would not be classified as a major amendment (as defined by § 27.313) were such a change to be submitted as an amendment to a pending application;

(2) For issuance of a license subsequent to a radio station authorization or, pending application for a grant of such license, any special or temporary authorization to permit interim operation to facilitate completion of authorized construction or to provide substantially the same service as would be authorized by such license;

(3) For temporary authorization pursuant to § 27.314;

(4) For an authorization under any of the proviso clauses of section 308(a) of the Communications Act of 1934 (47 U.S.C. section 308(a));

(5) For consent to an involuntary assignment or transfer of control of a radio authorization; or

(6) For consent to a voluntary assignment or transfer of control of a radio authorization, where the assignment or transfer does not involve a substantial change in ownership or control.

§ 27.317 Dismissal and return of applications.

(a) Any application may be dismissed without prejudice as a matter of right if the applicant requests its dismissal prior to designation for hearing or, in the case of applications filed on Forms 175 and 175–S, prior to auction. An applicant's request for the return of his application after it has been accepted for filing will be considered to be a request for dismissal without prejudice. Applicants requesting dismissal of their applications are also subject to § 27.203.

(b) A request to dismiss an application without prejudice will be considered after designation for hearing only if:

(1) A written petition is submitted to the Commission and is properly served upon all parties of record; and

(2) The petition complies with the provisions of this section and demonstrates good cause.

(c) The Commission will dismiss an application for failure to prosecute or for failure to respond substantially within a specified time period to official correspondence or requests for additional information. Dismissal shall be without prejudice if made prior to designation for hearing or prior to auction, but dismissal may be made with prejudice for unsatisfactory compliance or after designation for hearing or after the applicant is notified that it is the winning bidder under the auction process.

§ 27.319 Ownership changes and agreements to amend or to dismiss applications or pleadings.

(a) Applicability. Subject to the provisions of § 27.204 (Bidding Application and Certification Procedures; Prohibition of Collusion), this section applies to applicants and all other parties interested in pending applications who wish to resolve contested matters among themselves with a formal or an informal agreement or understanding. This section applies only when the agreement or understanding will result in:

(1) A major change in the ownership of an applicant to which §§ 27.313(c) and 27.313(g) apply or which would cause the applicant to lose its status as a designated entity under § 27.210(b), or

(2) The individual or mutual withdrawal, amendment or dismissal of any pending application, amendment, petition or other pleading.

(b) The provisions of § 27.207 will apply in the event of the filing of petitions to deny or other pleadings or informal objections filed against WCS applications. The provisions of § 27.317 will apply in the event of dismissal of WCS applications.

§ 27.320 Opposition to applications.

(a) Petitions to deny (including petitions for other forms of relief) and responsive pleadings for Commission consideration must comply with § 27.207 and must:

(1) Identify the application or applications (including applicant's name, station location, Commission file numbers and radio service involved) with which it is concerned;

(2) Be filed in accordance with the pleading limitations, filing periods, and other applicable provisions of §§ 1.41 through 1.52 of this chapter except where otherwise provided in § 27.207;

(3) Contain specific allegations of fact which, except for facts of which official notice may be taken, shall be supported by affidavit of a person or persons with personal knowledge thereof, and which shall be sufficient to demonstrate that the petitioner (or respondent) is a party in interest and that a grant of, or other Commission action regarding, the application would be prima facie inconsistent with the public interest;

(4) Be filed within five (5) days after the date of public notice announcing the acceptance for filing of any such application or major amendment thereto (unless the Commission otherwise extends the filing deadline); and

(5) Contain a certificate of service showing that it has been hand delivered to the applicant no later than the date of filing thereof with the Commission.

(b) A petition to deny a major amendment to a previously filed application may only raise matters directly related to the amendment which could not have been raised in connection with the underlying, previously filed application. This does not apply to petitioners who gain standing because of the major amendment.

(c) Parties who file frivolous petitions to deny may be subject to sanctions including monetary forfeitures, license revocation, if they are FCC licensees, and may be prohibited from participating in future auctions.

§ 27.321 Mutually exclusive applications.

(a) Two or more pending applications are mutually exclusive if the grant of one application would effectively preclude the grant of one or more of the others under the Commission's rules governing the Wireless Communications Services involved. The Commission uses the general procedures in this section for processing mutually exclusive applications in the Wireless Communications Services.

(b) An application will be entitled to comparative consideration with one or more conflicting applications only if the Commission determines that such comparative consideration will serve the public interest.

§ 27.322 Consideration of applications.

(a) Applications for an instrument of authorization will be granted if, upon examination of the application and upon consideration of such other matters as it may officially notice, the Commission finds that the grant will serve the public interest, convenience, and necessity. See also § 1.2108 of this chapter.

(b) The grant shall be without a formal hearing if, upon consideration of the application, any pleadings or objections filed, or other matters which may be officially noticed, the Commission finds that:

(1) The application is acceptable for filing, and is in accordance with the Commission's rules, regulations, and other requirements;

(2) The application is not subject to a post-auction hearing or to comparative consideration pursuant to § 27.322 with another application(s);

(3) The applicant certifies that the operation of the proposed facility would not cause harmful electromagnetic interference to another authorized station;

(4) There are no substantial and material questions of fact presented; and

(5) The applicant is qualified under current FCC regulations and policies.

(c) If the Commission should grant without a formal hearing an application for an instrument of authorization which is subject to a petition to deny filed in accordance with § 27.319, the Commission will deny the petition by the issuance of a concise statement for the reason(s) for the denial and dispose of all substantial issues raised by the petition.

(d) Whenever the Commission, without a formal hearing, grants any application in part, or subject to any terms or conditions other than those normally applied to applications of the same type, it shall inform the applicant of the reasons therefor, and the grant shall be considered final unless the Commission should revise its action (either by granting the application as originally requested, or by designating the application for a formal evidentiary hearing) in response to a petition for reconsideration which:

(1) Is filed by the applicant within thirty (30) days from the date of the letter or order giving the reasons for the partial or conditioned grant;

(2) Rejects the grant as made and explains the reasons why the application should be granted as originally requested; and,

(3) Returns the instrument of authorization.

(e) The Commission will designate an application for a formal hearing, specifying with particularity the matters and things in issue, if, upon consideration of the application, any pleadings or objections filed, or other matters which may be officially noticed, the Commission determines that:

(1) A substantial and material question of fact is presented (see also section 1.2108 of this chapter);

(2) The Commission is unable for any reason to make the findings specified in paragraph (a) of this section and the application is acceptable for filing, complete, and in accordance with the Commission's rules, regulations, and other requirements; or

(3) The application is entitled to concurrent consideration (under section 27.321) with another application (or applications).

(f) The Commission may grant, deny or take other action with respect to an application designated for a formal hearing pursuant to paragraph (e) of this section or part 1 of this chapter.

(g) Reconsideration or review of any final action taken by the Commission will be in accordance with part 1, subpart A of this chapter.

§ 27.323 [Reserved]

§ 27.324 Transfer of control or assignment of station authorization.

(a) Authorizations shall be transferred or assigned to another party, voluntarily (for example, by contract) or involuntarily (for example, by death, bankruptcy, or legal disability), directly or indirectly or by transfer of control of any corporation holding such authorization, only upon application and approval by the Commission. A transfer of control or assignment of station authorization in the Wireless Communications Service is also subject to section 27.209.

(1) A change from less than 50% ownership to 50% or more ownership shall always be considered a transfer of control.

(2) In other situations a controlling interest shall be determined on a case-

by-case basis considering the distribution of ownership, and the relationships of the owners, including family relationships.

(b) Form required:

(1) Assignment.

(i) FCC Form 490 shall be filed to assign a license or permit.

(ii) In the case of involuntary assignment, FCC Form 490 shall be filed within 30 days of the event causing the assignment.

(2) Transfer of control.

(i) FCC Form 490 shall be submitted in order to transfer control of a corporation holding a license or permit.

(ii) In the case of involuntary transfer of control, FCC Form 490 shall be filed within 30 days of the event causing the transfer.

(3) Notification of completion. The Commission shall be notified by letter of the date of completion of the assignment or transfer of control.

(4) If the transfer of control of a license is approved, the new licensee is held to the original renewal requirement of § 27.14.

(c) In acting upon applications for transfer of control or assignment, the Commission will not consider whether the public interest, convenience, and necessity might be served by the transfer or assignment of the authorization to a person other than the proposed transferee or assignee.

(d) Applicants seeking to transfer their licenses within three years after the initial license grant date are required to file, together with their transfer application, the associated contracts for sale, option agreements, management agreements, and all other documents disclosing the total consideration to be received in return for the transfer of the license.

(e) Partial assignment of authorization. If the authorization for some, but not all, of the facilities of a Wireless Communications Service station is assigned to another party, voluntarily or involuntarily, such action is a partial assignment of authorization.

(f) To request FCC approval of a partial assignment of authorization, the following must be filed in addition to the forms required by paragraph (b) of this section:

(g) The assignee must apply for authority (FCC Form 600) to operate a new station including the facilities for which authorization is assigned, or to modify the assignee's existing station to include the facilities for which authorization was assigned.

§ 27.325 Termination of authorization.

(a) All authorizations shall terminate on the date specified on the authorization, unless a timely application for renewal has been filed.

(b) If no application for renewal has been made before the authorization's expiration date, a late application for renewal will only be considered if it is filed within 30 days of the expiration date and shows that the failure to file a timely application was due to causes beyond the applicant's control. Service to subscribers need not be suspended while a late filed renewal application is pending, but such service shall be without prejudice to Commission action on the renewal application and any related sanctions. See also § 27.14 (Criteria for Comparative Renewal Proceedings).

(c) Special Temporary Authority. A special temporary authorization shall automatically terminate upon failure to comply with the conditions in the authorization.

PART 97—AMATEUR RADIO SERVICE

1. The authority citation for part 97 continues to read as follows:

Authority: 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303. Interpret or apply 48 Stat. 1064–1068, 1081–1105, as amended; 47 U.S.C. 151–155, 301–609, unless otherwise noted.

2. Section 97.303(j) is revised to read as follows:

§ 97.303 Frequency sharing requirements.

* * * * *

(j) In the 13 cm band:

(1) The amateur service is allocated on a secondary basis in all ITU Regions. In ITU Region 1, no amateur station shall cause harmful interference to, and shall be not protected from interference due to the operation of, stations authorized by other nations in the fixed and mobile services. In ITU Regions 2 and 3, no amateur station shall cause harmful interference to, and shall not be protected from interference due to the operation of, stations authorized by other nations in the fixed, mobile and radiolocation services.

(2) In the United States:

(i) The 2300–2305 MHz segment is allocated to the amateur service on a secondary basis. (Currently the 2300–2305 MHz segment is not allocated to any service on a primary basis.);

(ii) The 2305–2310 MHz segment is allocated to the amateur service on a secondary basis to the fixed, mobile, and radiolocation services;

(iii) The 2390–2400 MHz segment is allocated to the amateur service on a primary basis; and

(iv) The 2400–2402 MHz segment is allocated to the amateur service on a secondary basis. (Currently the 2400–2402 MHz segment is not allocated to any service on a primary basis.) The 2402–2417 MHz segment is allocated to the amateur service on a primary basis. The 2417–2450 MHz segment is allocated to the amateur service on a co-secondary basis with the Government radiolocation service. Amateur stations operating within the 2400–2450 MHz segment must accept harmful interference that may be caused by the proper operation of industrial, scientific, and medical devices operating within the band.

[FR Doc. 97–5128 Filed 2–28–97; 8:45 am]

BILLING CODE 6712–01–P