

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

In the Matter of)	
)	
Amendment of the Commission's Rules)	GEN Docket No. 90-314
to Establish New Personal Communications)	ET Docket No. 92-100
Services, Narrowband PCS)	
)	
Implementation of Section 309(j) of the)	PP Docket No. 93-253
Communications Act - Competitive Bidding,)	
Narrowband PCS)	

**SECOND REPORT AND ORDER
AND SECOND FURTHER NOTICE OF PROPOSED RULE MAKING**

Adopted: May 5, 2000

Released: May 18, 2000

Comment Date: July 5, 2000

Reply Comment Date: July 20, 2000

By the Commission:

TABLE OF CONTENTS

	<u>Paragraph No.</u>
I. INTRODUCTION	1
II. EXECUTIVE SUMMARY	2
III. BACKGROUND	3
IV. SECOND REPORT AND ORDER	
A. Service Rules	
1. Service Area Reallocation	7
2. Spectrum Aggregation Limit	15
3. Eligibility for Response Channels	19
B. Construction and Coverage Requirements for Narrowband PCS Licensees	23
C. Construction and Coverage Requirements for Nationwide Paging Licensees	29
D. Applicability of the Part 1 General Competitive Bidding Rules	31
E. Treatment of Designated Entities	
1. Effect of <i>Adarand Constructors, Inc. v. Peña</i>	35
2. Designated Entity Provisions	

a. Small Businesses and Rural Telephone Companies	39
b. Bidding Credits	42
c. Attribution	45
3. Payment Matters	52
4. Unjust Enrichment, Holding Period and Transfer Restrictions	55
F. Partitioning and Disaggregation	
1. Partitioning	57
2. Disaggregation	64
3. Combined Partitioning and Disaggregation	71
4. Rules Applicable to Small Businesses	72
G. Ownership Disclosure Requirements	75
H. Construction Prior to Grant of Licenses for Narrowband and Broadband PCS	78
V. SECOND FURTHER NOTICE OF PROPOSED RULE MAKING	80
VI. CONCLUSION	84
VII. PROCEDURAL MATTERS	
A. Regulatory Flexibility Analysis	85
B. Ex Parte Presentations	86
C. Comment Dates	87
D. Paperwork Reduction Act Analysis	91
E. Further Information	93
F. Ordering Clauses	94
APPENDIX A -- List of Commenters	
APPENDIX B -- Final Rules	
APPENDIX C -- Final Regulatory Flexibility Analysis	
APPENDIX D -- Initial Regulatory Flexibility Analysis	

I. INTRODUCTION

1. By this Second Report and Order and Second Further Notice of Proposed Rule Making, we adopt a number of modifications to our existing narrowband Personal Communications Services (PCS) rules. These include the use of Major Trading Areas (MTAs) for future licensing, the establishment of a "substantial service" alternative to our construction benchmarks, and modifications to certain provisions of our narrowband PCS competitive bidding rules. In light of the Supreme Court holding in *Adarand Constructors, Inc. v. Peña*,¹ for example, we eliminate race- and gender-based auction provisions. We also eliminate the current narrowband PCS spectrum aggregation limit. In the Further Notice, we seek comment on whether to channelize and license the one megahertz of narrowband PCS spectrum that has been held in reserve.

II. EXECUTIVE SUMMARY

¹ *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200 (1995) (*Adarand*) (overruling aspects of *Metro Broadcasting, Inc. v. FCC*, 497 U.S. 547 (1990), and requiring a strict scrutiny standard of review for Congressionally mandated race-conscious measures).

2. As the expert agency charged with management of the radiofrequency spectrum, we continually seek to improve the efficiency of spectrum use, reduce the regulatory burden on spectrum users, encourage competition, and promote service to the largest feasible number of users. We believe the modifications to our rules we adopt below help further these goals.

Second Report and Order

In this Second Report and Order, we:

- Eliminate Basic Trading Areas (BTAs) as too small to provide a viable narrowband service and adopt MTAs for future licensing of narrowband PCS. We believe that narrowband PCS can be licensed using MTAs without compromising the goal of ensuring entry for small businesses.
- Eliminate the current narrowband PCS spectrum aggregation limit, finding that it is not necessary to prevent an undue concentration of licenses.
- Eliminate the restriction on paging response channels that limits eligibility for these channels to incumbent paging licensees. We believe elimination of the eligibility restriction will increase the likelihood of awarding the licenses to those that value them most highly. We will retain the current rule restricting use of the response channels to mobile-to-base transmissions. We believe this restriction is necessary to avoid harmful interference.
- Modify our existing construction and minimum coverage requirements for narrowband PCS spectrum by allowing licensees to meet a "substantial service" alternative. Such an option will increase buildout flexibility for narrowband PCS licensees.
- Decline to adopt additional construction and coverage requirements for nationwide geographic area paging licensees.
- Adopt a partitioning and disaggregation scheme similar to that adopted for broadband PCS. This scheme will facilitate the efficient use of narrowband PCS spectrum, increase competition, and expedite the provision of narrowband service to areas that may not otherwise receive narrowband PCS or other wireless services in the near term.
- Simplify our ownership disclosure requirements for narrowband PCS auction applicants.

We also adopt the following auction-related measures:

- The general competitive bidding rules found in Subpart Q of Part 1 of the Commission's rules apply to narrowband PCS, unless specified otherwise.
- In light of the strict scrutiny standard of review now required under *Adarand*, we limit eligibility for bidding credits to small businesses.
- We make bidding credits available on a tiered basis for two categories of designated entities. Small businesses with average annual gross revenues not exceeding \$40 million for the preceding three years will receive a 15 percent credit. Very small businesses with

average annual gross revenues not exceeding \$15 million for the preceding three years will receive a 25 percent credit.

- For the purpose of determining small business eligibility, we adopt, with a slight modification, our proposal to attribute the gross revenues of the applicant, its controlling principals and its affiliates.
- We eliminate the \$40 million individual net worth limitation currently applicable in our narrowband PCS rules.

Second Further Notice of Proposed Rule Making

In this Second Further Notice of Proposed Rule Making, we:

- Tentatively conclude that we should proceed with the licensing of the one megahertz of narrowband spectrum that has been held in reserve, and we seek comment on how to channelize this spectrum.
- Seek comment on whether to rechannelize the narrowband PCS spectrum that has been channelized previously but not yet licensed in order to create larger spectrum blocks.

III. BACKGROUND

3. In the *PCS First Report and Order*, the Commission provided for the operation of new, narrowband PCS in the 900 MHz band.² The Commission broadly defined PCS as mobile and fixed communications offerings that serve individuals and businesses, and can be integrated with a variety of competing networks.³ To promote a wide range of potential narrowband services, the Commission, in the *PCS First Report and Order*, declined to adopt a restrictive definition of narrowband PCS, such as limiting this category of PCS to advanced messaging and paging services.⁴ The Commission also adopted a spectrum allocation and channelization plan, licensing rules, and technical standards for narrowband PCS.⁵ In the *Competitive Bidding Second Report and Order*, the Commission determined that, pursuant to Section 309(j) of the Communications Act of 1934, as amended, PCS is subject to competitive bidding in the case of mutually exclusive applications.⁶

4. In the *Competitive Bidding Second Report and Order*, the Commission adopted

² Amendment of the Commission's Rules to Establish New Narrowband Personal Communications Services, GEN Docket No. 90-314, ET Docket No. 92-100, *First Report and Order*, 8 FCC Rcd 7162 (1993) (*PCS First Report and Order*), on recon., *Memorandum Opinion and Order*, 9 FCC Rcd 1309 (1994) (*PCS MO&O*).

³ *PCS First Report and Order*, 8 FCC Rcd at 7164, ¶ 13; see also 47 C.F.R. § 24.5.

⁴ *PCS First Report and Order*, 8 FCC Rcd at 7164, ¶ 13.

⁵ *Id.* at 7164-71, ¶¶ 15-37, 39-54.

⁶ Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, PP Docket 93-253, *Second Report and Order*, 9 FCC Rcd 2348, 2358, ¶¶ 54-58 (1994) (*Competitive Bidding Second Report and Order*). In the Balanced Budget Act of 1997, Congress amended Section 309(j) to expand the Commission's auction authority and statutory mandate. The Commission is now required to assign initial licenses by competitive bidding whenever mutually exclusive applications are accepted for filing, with certain limited exceptions. Balanced Budget Act of 1997, Pub. L. No. 105-33, Title III, 111 Stat. 251 (1997).

general competitive bidding rules for auctionable services.⁷ In the *Competitive Bidding Third Report and Order*, the Commission established competitive bidding rules specifically for narrowband PCS.⁸ On reconsideration of that *Order*, the Commission revised certain auction procedures, expanded special provisions for designated entities in future narrowband auctions, and sought comment on additional designated entity provisions for the upcoming narrowband PCS auction.⁹ Currently, of the three megahertz of 900 MHz spectrum allocated for narrowband PCS, two one-megahertz blocks are divided into specific channels for licensing.¹⁰ The remaining one megahertz of narrowband PCS spectrum has been reserved to accommodate future development of narrowband PCS.¹¹

5. The Commission has conducted two auctions for narrowband PCS licenses. As a result of these two auctions, ten nationwide narrowband PCS licenses and six regional narrowband PCS licenses in five different regions (totaling 30 regional licenses) have been granted.¹² Auctions have not yet been conducted for the narrowband PCS spectrum currently designated for licensing in 51 MTAs and 493 BTAs.¹³ In addition, the 204 MTA licenses and 1,968 BTA licenses designated as unpaired response channels have not been auctioned.¹⁴

6. In the *Narrowband PCS R&O/Further Notice*, the Commission, *inter alia*, conformed the definition of minority groups with definitions used in other contexts, and declined to establish an entrepreneurs' block for narrowband PCS.¹⁵ The Commission also proposed to reallocate all

⁷ *Competitive Bidding Second Report and Order*, 9 FCC Rcd at 2360-2400, ¶¶ 68-297.

⁸ Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, PP Docket No. 93-253, *Third Report and Order*, 9 FCC Rcd 2941, 2944-79, ¶¶ 9-89 (1994) (*Competitive Bidding Third Report and Order*).

⁹ Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, Narrowband PCS, PP Docket No. 93-253, and Amendment of the Commission's Rules to Establish New Narrowband Personal Communications Services, GEN Docket No. 90-314, ET Docket No. 92-100, *Third Memorandum Opinion and Order and Further Notice of Proposed Rule Making*, 10 FCC Rcd 175 (1994) (*Competitive Bidding Third MO&O/Further Notice*). The term "designated entity" refers to small businesses, rural telephone companies, and businesses owned by minorities and/or women, collectively.

¹⁰ See 47 C.F.R. § 24.129; see also *Competitive Bidding Third Report and Order*, 9 FCC Rcd at 2944-45, ¶¶ 9-10.

¹¹ *Competitive Bidding Third Report and Order*, 9 FCC Rcd at 2944, ¶ 9.

¹² The nationwide narrowband PCS auction commenced on July 25, 1994, and closed after 47 rounds of bidding over a five-day period. See "Announcing the High Bidders in the Auction of Ten Nationwide Narrowband PCS Licenses; Winning Bids Total \$617,006,674," *Public Notice*, PNWL 94-004 (rel. August 2, 1994). The regional narrowband PCS auction began on October 26, 1994, and closed on November 8, 1994, after 105 rounds. See "Announcing the High Bidders in the Auction of 30 Regional Narrowband (PCS) Licenses; Winning Bids Total \$490,901,787," *Public Notice*, PNWL 94-27 (rel. Nov. 9, 1994). Certain licenses have been returned or have cancelled for nonpayment. An inventory of all available licenses will be issued by public notice prior to the conduct of an auction.

¹³ The remaining channels currently allocated to be licensed as narrowband PCS are found in the 901-902, 930-931, and 940-941 MHz bands. For the current spectrum and channelization plan, see *Competitive Bidding Third Report and Order*, 9 FCC Rcd at 2945, ¶¶ 9-10. See also 47 C.F.R. §§ 24.102, 24.129.

¹⁴ See 47 C.F.R. § 24.130.

¹⁵ Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS, GEN Docket No. 90-314, ET Docket No. 92-100, Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, Narrowband PCS, PP Docket No. 93-253, *Report and Order and Further Notice of Proposed Rulemaking*, 12 FCC Rcd 12972, 12984, 12985, ¶¶ 19-20, 22 (1997) (*Narrowband PCS R&O/Further Notice*).

of the BTA channel blocks and some of the MTA channel blocks to create larger service areas, eliminate the restriction on paging response channels that limits eligibility for these channels to incumbent paging licensees, channelize and license the remaining one megahertz of narrowband PCS spectrum, modify its existing construction and minimum coverage requirements, establish a partitioning scheme similar to that adopted for broadband PCS, and modify the narrowband PCS auction rules.¹⁶ With respect to the competitive bidding rules in particular, the Commission proposed to limit eligibility for bidding credits and installment payments to small businesses, and proposed to make bidding credits available on a tiered basis for small businesses.¹⁷ In response to the *Narrowband PCS R&O/Further Notice*, the Commission received 15 comments and 16 reply comments.¹⁸

IV. SECOND REPORT AND ORDER

A. Service Rules

1. Service Area Reallocation

7. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission sought comment on whether to reallocate all of the narrowband PCS BTA-based channel blocks, and some of the MTA-based channel blocks, as regional and nationwide licenses. Specifically, the Commission proposed to (1) redesignate the two remaining 50 kHz paired channels as nationwide channels; (2) establish one nationwide channel pair, three regional channel pairs, and one MTA-based channel pair from the five 50/12.5 kHz channel pairs; and (3) convert the four BTA-based 12.5 kHz unpaired response channels to regional channels. By designating these service areas, the Commission intended to give companies, including designated entities, the opportunity to establish viable narrowband service and to provide regional and nationwide service if circumstances warrant.¹⁹

8. The Commission also sought comment on what effect increasing the service area size of as-yet unlicensed channels would have on existing narrowband PCS licenses. It requested comment on whether its proposals would be equitable to existing licensees, and whether they would assist new entrants in offering services to the public in a more efficient manner.²⁰

9. Last, the Commission requested comment on whether using Major Economic Areas (MEAs) would be preferable to using MTAs to license narrowband PCS in the future. The Commission noted that previously licensed regional narrowband PCS licenses were configured by aggregating MTAs into larger regional areas. Therefore, using MEAs would cause some inconsistencies between existing regional narrowband PCS boundaries and MEA-based boundaries.²¹

¹⁶ *Id.* at 12976-77, ¶ 4.

¹⁷ *Id.*

¹⁸ Appendix A provides the full and abbreviated names of the parties filing comments and reply comments.

¹⁹ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 12989-90, ¶¶ 29-31.

²⁰ *Id.* at 12990, ¶ 32.

²¹ *Id.* at 12990, ¶ 31. MEAs, which are based on Economic Areas (EAs) defined by the Department of Commerce, were first developed by the Commission to define geographic license areas for the Wireless

10. Discussion. We will amend our current allocation of narrowband PCS spectrum to eliminate BTAs and license the remaining spectrum, including the response channels, based on MTAs. The majority of commenters share the view that BTAs are too small to provide viable narrowband service,²² and there is substantial support for the use of MTAs.²³ While several commenters argue for a combination of regional and MTA licenses,²⁴ others oppose the creation of any additional regional licenses on the grounds that it would be too costly for small businesses to acquire and build out such licenses.²⁵ We find that MTAs are the most appropriate geographic area for licensing the remaining narrowband spectrum because they will serve the needs of a wide range of entities, including both large and small service providers. MTAs are not too large to preclude the entry of small businesses,²⁶ and those interested in service areas larger than MTAs will be able to create such areas by aggregating licenses. Moreover, we agree with those who argue that MTAs are large enough to support wide-area service and provide for economies of scale.²⁷ We believe that MTA-based service areas, coupled with the ability to aggregate licenses, will offer licensees substantial flexibility to provide wide-area local service as well as service on a larger scale.²⁸ We also note that the rules we adopt today providing for partitioning

Communications Service. See Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS"), *Report and Order*, 12 FCC Rcd 10785, 10814, ¶ 54 (1997) (*WCS Report and Order*). In the *WCS Report and Order*, we aggregated EAs into 52 MEAs, including 46 in the continental United States and an additional six 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 will address the licensing of narrowband PCS in the Gulf of Mexico in a separate proceeding.

²² AirTouch Comments at 3-5; American Paging Comments at 2, 3-4; Arch Comments at 8, Reply Comments at 3; Benbow Comments at 2-3, Reply Comments at 3-4; Celpage Comments at 5-7, Reply Comments at 2; Metrocall Comments at 4-6, Reply Comments at 1-2; PageMart Comments at 2-3; PageNet Comments at 16-17, Reply Comments at 7; PCIA Comments at 2-3, 5-7; Preferred Networks Reply Comments at 2. See also MAP Mobile Reply Comments at 2-3.

²³ AirTouch Comments at 4-5; American Paging Comments at 2, 3-4; Arch Comments at 8; Benbow Comments at 3-4, Reply Comments at 3-4; Celpage Comments at 7, Reply Comments at 2; Metrocall Comments at 5-6, Reply Comments at 1-2; PageMart Comments at 2-3; PageNet Comments at 16-17, Reply Comments at 7; PCIA Comments at 2-3, 5-7; Preferred Networks Reply Comments at 2. See also Metrocall Comments at 6; Celpage Comments at 7 (arguing that if the Commission retains the current eligibility restrictions for the response channels, these channels should also be licensed on an MTA basis); PageNet Comments at 19 (opposing the proposal to convert the BTA-based response channels to regional channels and arguing that all of the response channels should be licensed on an MTA basis).

²⁴ Metrocall and Celpage contend that a such a combination would balance the needs of large and small carriers by allowing larger companies to establish wide-area networks while preserving opportunities for participation by smaller companies. Metrocall Comments at 5, Reply Comments at 1-3; Celpage Comments at 6-7, Reply Comments at 2-3. Benbow maintains that regional licenses would provide opportunities for small businesses. Benbow Comments at 3-4, Reply Comments at 3-5. Arch argues that one of the two 50 kHz paired channels should be designated as regional. Arch Comments at 8-9. See also MAP Mobile Reply Comments at 3-5 and Preferred Networks Reply Comments at 4.

²⁵ CONXUS Comments at 7-10; PageMart Comments at 3.

²⁶ An illustrative comparison is provided by the 900 MHz SMR auction, which was MTA-based, in which 60 out of 80 high bidders were small businesses. See "Wireless Telecom Bureau Releases Progress Report," *Press Release* (rel. March 5, 1997).

²⁷ American Paging Comments at 3; Celpage Comments at 5-7; Metrocall Comments at 5-6, Reply Comments at 2; PageNet Comments at 16-18, Reply Comments at 7.

²⁸ PageNet asserts that wide-area local service is the predominant paging service at this time. PageNet Comments at 17.

and disaggregation will further enable the market to establish optimally sized service areas.²⁹

11. The record contains little support for, and considerable opposition to, the establishment of additional nationwide licenses.³⁰ Arch, however, which generally supports the Commission's proposed reallocation, favors allocating one of the two remaining 50 kHz paired channels as a nationwide license.³¹ According to Arch, large service areas are critical to two-way voice and data applications.³² For the same reasons we decline to establish additional regional licenses, we will not adopt our proposal to create additional nationwide licenses.

12. Certain commenters argue that the elimination of BTA-based licenses would disadvantage small businesses in acquiring new licenses, and would be unfair to licensees that participated in previous auctions and based their business plans on the current spectrum allocation.³³ However, as we have already noted, there is broad support for replacing BTAs with MTAs in the record. Moreover, even commenters that are small businesses, such as Benbow, agree that BTAs are too small to support narrowband PCS.³⁴ Celpage, which specifically argues that "[s]maller entities relied on the upcoming availability of smaller, more manageable service areas," also supports the elimination of BTAs.³⁵ Considering the record as a whole, we do not believe that using MTAs will compromise the goal of ensuring entry for small businesses or undermine the confidence of either incumbent and potential licensees or the investment community.³⁶

13. We are also not persuaded by RTG's contention that the record in this proceeding refutes the Commission's concern that BTAs are too small to provide viable narrowband PCS service.³⁷ Our experience with similar services suggests that larger licensing areas may be more suitable to the actual configuration of narrowband systems.³⁸

²⁹ See *infra* at ¶¶ 57-74 for our discussion of partitioning and disaggregation.

³⁰ Those opposed to nationwide licenses include AirTouch, American Paging, Ameritech, Celpage, CONXUS, Merlin, Metrocall, Morgan Stanley, PageMart, PageNet, PCIA, and RTG. AirTouch Comments at 5-14; American Paging Comments at 2, Reply Comments at 1-2; Ameritech Comments at 5-7, Reply Comments at 3-4; Celpage Comments at 6, Reply Comments at 2; CONXUS Comments at 7-10, Reply Comments at 5-6; Merlin Comments at 3-4; Metrocall Comments at 5, Reply Comments at 2; Morgan Stanley Comments at 4-5; PageMart Comments at 2-3, Reply Comments at 2-5; PageNet Comments at 17-18, Reply Comments at 5-6; PCIA Comments at 5-8; RTG Comments at 6-7, 9-12.

³¹ Arch Comments at 9. See also MAP Mobile Reply Comments at 3 (expressing support for this proposal).

³² Arch Comments at 4.

³³ Ameritech Comments at 5-7, Reply Comments at 2-4; CONXUS Comments at 5-11, Reply Comments at 4-7; RTG Comments at 8-12. See also AirTouch Comments at 10 (arguing that the proposal to eliminate virtually all smaller geographic areas violates the Communications Act); Merlin Comments at 4 (arguing that increasing the geographic license size of narrowband PCS channels will deter new entrants from participating in future narrowband PCS auctions, because the upfront cost of participation will be substantially higher than originally proposed); NTCA Reply Comments at 3.

³⁴ Benbow Comments at 3.

³⁵ Celpage Comments at 5-7.

³⁶ See CONXUS Comments at 6.

³⁷ RTG Comments at 6-7. See also NTCA Reply Comments at 3.

³⁸ For example, we recently adopted MEA-based licensing for the 929 MHz and 931 MHz paging bands, which are likely to be directly competitive with narrowband PCS. See Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, WT Docket No. 96-18, Implementation of Section 309(j)

14. Finally, we note that the use of MTAs will avoid any potential problems that might arise from inconsistencies between the boundaries of MEAs and existing regional licenses based on MTAs.³⁹ Moreover, Rand McNally & Company, which owns the copyright to MTAs, has granted a blanket license to parties with an interest in this proceeding to use MTAs, and there is therefore no impediment to their use for narrowband PCS.

2. Spectrum Aggregation Limit

15. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission sought comment on whether, in light of its tentative conclusion that it should license the one megahertz of narrowband PCS spectrum held in reserve, the current aggregation limit on narrowband PCS spectrum should be modified or eliminated.⁴⁰ Narrowband PCS is not subject to the 45 MHz commercial mobile radio service (CMRS) spectrum cap.⁴¹ However, a single licensee is permitted to hold licenses for no more than three channels, either paired or unpaired, in any geographic area.⁴²

16. Discussion. We will eliminate the narrowband PCS spectrum aggregation limit. The limit was adopted in 1993 to ensure that narrowband PCS services would be offered on a competitive basis.⁴³ However, the Commission recently has concluded that the paging/messaging industry is highly competitive.⁴⁴ Moreover, narrowband PCS licensees increasingly compete with other sectors of the wireless industry, including broadband PCS and Specialized Mobile Radio (SMR), that offer the same or similar services.⁴⁵ Thus, we find that the aggregation limit is not needed to prevent an undue concentration of licenses, either through the auctioning of additional narrowband PCS spectrum or post-auction mergers. Moreover, the aggregation limit may be harmful if it disadvantages narrowband PCS licensees in competing

of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Memorandum Opinion and Order on Reconsideration and Third Report and Order*, 14 FCC Rcd 10030, 10044, ¶¶ 16-17 (1999) (*Paging MO&O/Third Report and Order*). We also adopted EAs, which are larger than BTAs, as the geographic area for licensing the lower paging bands. Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, WT Docket No. 96-18, Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, PP Docket No. 93-253, *Second Report and Order and Further Notice of Proposed Rulemaking*, 12 FCC Rcd 2732, 2748-49, ¶¶ 23-24 (1997) (*Paging Second Report and Order*).

³⁹ See Motorola Comments at 6, Reply Comments at 5; Benbow Comments at 4-5. See also PCIA Comments at 6-7.

⁴⁰ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd 12991-92, ¶ 35.

⁴¹ Implementation of Sections 3(n) and 332 of the Communications Act, GN Docket 93-252, Regulatory Treatment of Mobile Services, Amendment of Part 90 of the Commission's Rules To Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, PR Docket No. 93-144, Amendment of Parts 2 and 90 of the Commission's Rules To Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and 935-940 MHz Band Allotted to the Specialized MobileRadio Pool, PR Docket No. 89-553, *Third Report and Order*, 9 FCC Rcd 7988, 8111, ¶ 267 (1994) (*CMRS Third Report and Order*). The CMRS spectrum cap is set forth at 47 C.F.R. § 20.6.

⁴² *PCS First Report and Order*, 8 FCC Rcd at 7168, ¶ 34, n.21; 47 C.F.R. § 24.101.

⁴³ *Id.* at 7168, ¶ 34.

⁴⁴ Implementation of Section 6002(b) of the Omnibus Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, *Fourth Report*, 14 FCC Rcd 10145, 10185-87, 10190 (1999).

⁴⁵ *Id.* at 10185-87.

against other services.⁴⁶ We find that, in order to compete with other providers of paging and messaging services, narrowband PCS licensees may well need to consolidate and should not be prevented from doing so by the current narrowband PCS spectrum aggregation limit.⁴⁷ We also agree with PCIA that narrowband PCS licensees should be permitted to hold licenses for enough spectrum to support new and innovative services.⁴⁸ Thus, irrespective of any decision we make regarding the channelization and licensing of the one megahertz of narrowband PCS spectrum held in reserve, we find that the limit should be abolished.

17. We disagree with Merlin's contention that eliminating the aggregation limit will enable large companies to use their larger capital resources to prevent entry by small competitors.⁴⁹ Acquiring spectrum for purposes of withholding its use would be very expensive. In addition, such efforts would be difficult, given the large number of licensees already competing in this market and the fact that, as noted above, narrowband PCS licensees face competition from other wireless sectors. We do not believe that companies will attempt to acquire licenses merely to foreclose entry by smaller entities because it is clear that such a strategy would not be successful in limiting competition.

18. We recognize that, in our recent order addressing the CMRS spectrum cap set forth in Section 20.6 of our rules, we found that a spectrum cap was necessary to ensure that the mobile voice market is competitive.⁵⁰ We found that there was a risk of excessive concentration through mergers that might erase the competitive gains that had been made in that market, and that a bright line test was an effective and efficient means of dealing with that risk. In the paging/messaging context, however, the risk of excessive concentration is much lower. Paging carriers face growing competition from short messaging services (SMS)⁵¹ and other digital service features offered by an increasing number of mobile voice carriers. In addition, our recent auction of spectrum in the 929 and 931 MHz bands should facilitate further entry or capacity expansion. We note that we retain the ability to evaluate individual transfer and assignment applications on a case-by-case basis through our review of such applications. We find, therefore, that a spectrum aggregation limit is unwarranted. Finally, because we are eliminating the spectrum limit, we need not address arguments regarding the appropriate attribution standard for such a limit.⁵²

⁴⁶ See CONXUS Comments at 14-15, Reply Comments at 2-4; AirTouch Reply Comments at 7-8; PCIA, *White Paper Supporting Elimination of the Narrowband PCS Spectrum Aggregation Limit*, filed February 10, 2000, at 5, 8-14 (*PCIA White Paper*). See also PageMart Comments at 8.

⁴⁷ See *PCIA White Paper* at 14-17.

⁴⁸ *Id.* at 13, 15.

⁴⁹ Merlin Comments at 5.

⁵⁰ See 1998 Biennial Regulatory Review Spectrum Aggregation Limits for Wireless Telecommunications Carriers; Cellular Telecommunications Industry Association's Petition for Forbearance from the 45 MHz CMRS Spectrum Cap, WT Docket No. 98-205; Amendment of Parts 20 and 24 of the Commission's Rules—Broadband PCS Competitive Bidding and Commercial Mobile Radio Service Spectrum Cap, WT Docket No. 96-59; Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, GN Docket No. 93-252, *Report and Order*, FCC 99-244, 1999 WL 734848 (rel. Sept. 22, 1999), ¶¶ 49-55; 47 C.F.R. § 20.6.

⁵¹ SMS is a digital feature offered by some cellular, broadband PCS, and SMR carriers that permits users' handsets to include the functionality of paging and messaging devices.

⁵² Arch and Benbow argue that the Commission should retain the narrowband PCS spectrum cap, but

3. Eligibility for Response Channels

19. **Background.** In order to provide an opportunity for incumbent paging licensees to upgrade their operations, the Commission set aside 100 kilohertz (eight unpaired frequencies) of the 3 megahertz allocated for narrowband PCS as paging response channels, *i.e.*, channels to be used in paired communications with existing one-way paging frequencies to provide mobile-to-base station communications.⁵³ The Commission's intent in establishing these channels was to provide a means for one-way (single frequency) paging licensees to obtain a second frequency for the purpose of delivering signals back from their customers' mobile devices. The Commission's current rules limit eligibility for acquiring narrowband PCS response channels to existing paging licensees, *i.e.*, those licensed to operate conventional one-way paging base stations under Part 22 or Part 90 of the Commission's rules as of the application filing deadline for the paging response channels.⁵⁴ In the *Narrowband PCS R&O/Further Notice*, the Commission requested comment on whether to eliminate this limitation on eligibility for the response channels.⁵⁵ The Commission requested that commenters address whether it should lift eligibility restrictions on all response channels or only on certain response channels and asked about the potential impact on eligibility of its recent *Paging Second Report and Order*, which adopted geographic area licensing rules for paging systems.⁵⁶ Last, the Commission sought comment on whether it should retain the current rule restricting use of the response channels to mobile-to-base transmissions or allow the marketplace to determine the most efficient use of the channels.⁵⁷

20. **Discussion.** We adopt the Commission's proposal to lift all eligibility restrictions on applying for paging response channels. We find that our current rules unnecessarily exclude potential users of the response channels that are not paging licensees, *e.g.*, narrowband PCS licensees. We disagree with those who argue that the restriction is warranted because paging incumbents are most likely to put the response channels to immediate use (by pairing them with operational systems).⁵⁸ We agree with Merlin that lifting the eligibility restrictions will encourage entry of new narrowband PCS providers by providing greater flexibility to new

replace the current attribution threshold (*i.e.*, 5 percent) with those contained in the CMRS spectrum cap rule (*i.e.*, 20 percent for non-small businesses; 40 percent for small businesses). Arch Comments at 12-15; Benbow Comments at 8-11. See also Celpage Reply Comments at 5; Preferred Networks Reply Comments at 5-6.

⁵³ *PCS First Report and Order*, 8 FCC Rcd at 7165, ¶ 20.

⁵⁴ See 47 C.F.R. § 24.130.

⁵⁵ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 12994, ¶ 40. Existing paging licensees' eligibility for response channels is limited to any BTA or MTA that encompasses an authorized base station or that is partly or wholly overlapped by the paging system's service area, which is generally defined as the area within 32.2 kilometers of the licensee's base station. In the case of "F," "G," "H," or "K" class stations under Sections 22.502(c) and 90.495(b)(1) of our rules, service area is defined as the area that is within the service area radius specified in Section 22.504(b)(2). 47 C.F.R. § 24.130(a).

⁵⁶ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 12994, ¶ 40. See also *Paging Second Report and Order*, 12 FCC Rcd at 2744-46, 2748-49, ¶¶ 14-19, 23-25.

⁵⁷ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 12994, ¶ 40.

⁵⁸ Arch Comments at 12, Reply Comments at 11-12; Celpage Comments at 12, Reply Comments at 6-7; Metrcall Comments at 9, Reply Comments at 6; MAP Mobile Reply Comments at 6; Preferred Networks Reply Comments at 4.

licensees to use these channels in conjunction with other spectrum to provide new services.⁵⁹

21. PageNet and PCIA contend that eliminating the restriction will hinder paging licensees in developing services to compete with narrowband and broadband PCS carriers.⁶⁰ Similarly, Benbow argues against eliminating the eligibility restriction, and proposes instead that the Commission extend eligibility for the paging response channels only to narrowband licensees that have a "geographic relationship" to the service area(s) for which they seek the additional spectrum, on the grounds that allowing non-narrowband service providers to acquire these channels could prevent narrowband licensees from becoming fully competitive with CMRS systems.⁶¹ We disagree. We find that removal of eligibility restrictions will increase competition for these channels and thereby increase the likelihood that licenses for these channels will be awarded to those, including paging licensees, that value them most highly. We disagree with Ameritech's argument that eliminating the restriction may attract speculative bidders that would later attempt to sell response channel licenses to incumbent paging operators if two-way paging becomes technologically and economically feasible.⁶² We believe that our rules, including our competitive bidding rules and construction and coverage requirements, adequately deter speculation and other anticompetitive activities. We note also that our decision to eliminate the current limit on aggregation of narrowband PCS spectrum, discussed above, will help narrowband PCS licensees compete with other CMRS providers.⁶³ In keeping with that decision, as well as our decision here to eliminate eligibility restrictions, we also conclude that there should be no limit on the number of response channels a licensee may hold.

22. Many parties commenting on the issue disagreed with the Commission's tentative conclusion that the response channels should not be restricted to mobile-to-base transmissions, provided that licensees comply with the relevant rules regarding maximum transmitter power and interference.⁶⁴ Several commenters argue that allowing these channels to be used for other purposes would cause harmful interference with current narrowband PCS licensees.⁶⁵ Motorola opposes use of the response channels for base-to-mobile transmissions because base transmitters typically use high duty cycles and greater antenna heights.⁶⁶ We agree with these commenters and will retain the current rule restricting use of the response channels to mobile-to-base transmissions.

⁵⁹ Merlin Comments at 6.

⁶⁰ PageNet Comments at 21-22, Reply Comments at 14; PCIA Comments at 11-12, Reply Comments at 10-11; MAP Mobile Reply Comments at 5-6. *See also* Metrocall Comments at 9-10, Reply Comments at 6-7; Celpage Comments at 12, Reply Comments at 7 (arguing that many paging operators refrained from participating in previous narrowband PCS auctions expecting that these channels would be available exclusively to them in the future).

⁶¹ Benbow Comments at 12, Reply Comments at 7-8. *See also* CONXUS Comments at 11; PageNet Comments at 22.

⁶² Ameritech Comments at 8, Reply Comments at 10.

⁶³ *See supra* at ¶¶ 16-18.

⁶⁴ Motorola Comments at 8-9, Reply Comments at 6-7; Benbow Comments at 13, Reply Comments at 8; Arch Comments at 6, 11, Reply Comments at 10; PCIA Comments at 11-13, Reply Comments at 11-12; PageNet Reply Comments at 10-11; Preferred Networks Reply Comments at 4. *But see* AirTouch Reply Comments at 6 (supporting the elimination of use restrictions).

⁶⁵ Arch Comments at 11; Benbow Comments at 13. *See also* PCIA Comments at 12-13, Reply Comments at 13; Preferred Networks Reply Comments at 4.

⁶⁶ Motorola Comments at 8-10.

B. Construction and Coverage Requirements for Narrowband PCS Licensees

23. Background. The Commission adopted the current minimum coverage requirements for narrowband PCS in 1994.⁶⁷ Since then, we have moved towards a more flexible approach to coverage requirements in other services.⁶⁸ In light of these developments in other services, the Commission proposed in the *Narrowband PCS R&O/Further Notice* to allow narrowband PCS licensees to demonstrate "substantial service" as an alternative to meeting the coverage requirements set forth in the existing rules. The Commission also requested comment on whether it should (1) eliminate all coverage requirements for narrowband PCS, or (2) modify its existing narrowband PCS coverage benchmarks in addition to adopting a substantial service option. The Commission questioned whether the existing benchmarks for MTA-based narrowband PCS licensees are appropriate compared to our paging requirements. It also asked that commenters discuss applicable coverage requirements for regional and nationwide narrowband PCS licensees.⁶⁹

⁶⁷ *PCS MO&O*, 9 FCC Rcd at 1313-14, ¶¶ 31-34. Specifically, nationwide narrowband PCS licensees must provide coverage to a composite area of 750,000 square kilometers or serve 37.5 percent of the U.S. population within five years of their license grants, and must provide coverage to a composite area of 1,500,000 square kilometers or serve 75 percent of the U.S. population within ten years of license grant. Regional licensees must cover 150,000 square kilometers or serve 37.5 percent of the population in their licensing areas within five years, and must cover 300,000 square kilometers or serve 75 percent of the regional population within ten years. MTA licensees must cover 75,000 square kilometers or 25 percent of the geographic area or serve 37.5 percent of the MTA population in five years, and must cover 150,000 square kilometers or 50 percent of the geographic area or serve 75 percent of the MTA population in ten years. See 47 C.F.R. § 24.103.

⁶⁸ For example, paging licensees may either meet population coverage benchmarks (one-third of the license area population within three years of license grant, and two-thirds of the population within five years) or may demonstrate that they are providing "substantial service" in the license area within five years of license grant. *Paging Second Report and Order*, 12 FCC Rcd at 2766-67, ¶ 63. These build-out requirements apply to MEA and EA geographic area paging licenses. *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10070-74, ¶¶ 64-72. Substantial service is defined as "service that is sound, favorable, and substantially above a level of mediocre service that would barely warrant renewal." See 47 C.F.R. § 22.503(k)(3).

We have also adopted substantial service as an alternative to specific coverage benchmarks in 900 MHz SMR and for the 10 MHz blocks in broadband PCS. See Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool, PR Docket No. 89-553, Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, Implementation of Sections 3(n) and 322 of the Communications Act, GN Docket No. 93-252, *Second Order on Reconsideration and Seventh Report and Order*, 11 FCC Rcd 2639, 2651-52, ¶ 31 (1995) (*900 MHz Second Order on Reconsideration*); Amendment of the Commission's Rules to Establish New Personal Communications Services, GEN Docket No. 90-314, *Memorandum Opinion and Order*, 9 FCC Rcd 4957, 5018-19, ¶ 155 (1994).

⁶⁹ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 12996-98, ¶¶ 44-47. There is no counterpart to regional narrowband PCS in our paging rules; therefore, we do not have specific paging coverage requirements for comparison in this instance. We also have not adopted coverage requirements for nationwide geographic area paging licensees, but note that under our former rules licensees on the nationwide 931 MHz frequencies were required initially to construct stations in at least 15 Standard Metropolitan Statistical Areas, and to offer service on a nationwide basis within two years of the start of service. Amendments of Parts 2 and 22 of the Commission's Rules to Allocate Spectrum in the 928-941 MHz Band and to Establish Other Rules, Policies, and Procedures for One-Way Paging Stations in the Domestic Public Land Mobile Radio Service, *Memorandum Opinion and Order on Reconsideration (Part 2)*, 93 F.C.C.2d 908, 917 (1983); see also 47 C.F.R. § 22.527(b)(5)(1994). To encourage the development of wide-area paging systems, the Commission also implemented exclusive licensing of qualified local, regional, and nationwide paging systems on thirty-five of the forty 929 MHz channels licensed, at that time, under

24. Discussion. We will maintain our current coverage requirements for narrowband PCS and will adopt a substantial service requirement as an alternative. We find that coverage requirements, including a substantial service standard, encourage the provision of service to areas that would not necessarily receive service expeditiously solely through the operation of market forces.

25. We disagree with those who argue that the Commission's current construction benchmarks should be modified. According to Arch and Benbow, the Commission should eliminate the five-year construction requirement and allow both existing and new narrowband PCS licensees to meet a 37.5 percent population benchmark by the tenth year of their license terms.⁷⁰ Arch and Benbow claim that such an adjustment is necessary given the severe delays in equipment and service deployment that have occurred in this service.⁷¹ Similarly, PCIA contends that the Commission should preserve the existing buildout requirements, but delay the commencement of the five-year buildout period until the original two megahertz of narrowband PCS spectrum has been fully licensed.⁷² We recognize that narrowband PCS is a developing service and that there has been a delay in equipment availability. We therefore believe that it would not be appropriate at this time to establish three- and five-year benchmarks for this service, as we have done for the paging services, in lieu of the current benchmarks. We also believe, however, that our five- and ten-year construction benchmarks provide sufficient time for narrowband PCS licensees to construct their systems. We note that the nationwide narrowband PCS licensees that have reached their five-year buildout benchmarks have all represented to us that they met the requirement, and none requested a waiver.⁷³ Thus, we find that there is no need to alter the current benchmarks, and that it is best to address any problems that individual licensees may have because of difficulties with financing or equipment availability by evaluating requests for waiver on a case-by-case basis.

26. Commenters express varied concerns about the adoption of a substantial service requirement. PageNet, PCIA, CONXUS and others argue that replacing the existing coverage requirements with a substantial service test would encourage speculation, fraud, and

Part 90 of our rules. Amendment of the Commission's Rules to Provide Channel Exclusivity to Qualified Private Paging Systems at 929-930 MHz, *Report and Order*, 8 FCC Rcd 8318, 8319-20, ¶ 6 (1994). To earn nationwide exclusivity on 929 MHz channels, licensees were required to construct 300 transmitters or more in the continental United States, Alaska, Hawaii, and Puerto Rico. See 47 C.F.R. § 90.495 (1994). Licensees were also required to provide service to at least 50 urban markets, including 25 of the top 50 markets, and to two markets in each of the seven regions modeled on Regional Bell Operating Company regions. *Id.* See also *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10099-100, ¶¶ 129-130, where we concluded that it would be best to defer any decision on whether to impose minimum coverage requirements on paging licensees holding nationwide geographic area licenses until we resolved similar issues raised in the *Narrowband PCS R&O/Further Notice*. See *infra* at ¶ 30 for our decision regarding nationwide geographic area paging licenses.

⁷⁰ Arch Comments at 17-18, Reply Comments at 16; Benbow Comments at 15, Reply Comments at 5.

⁷¹ Arch Comments at 18, Reply Comments at 16; Benbow Comments at 14-15, Reply Comments at 5. See also AirTouch Reply Comments at 5.

⁷² PCIA Comments at 15, Reply Comments at 6. See also CONXUS Comments at 14 (arguing that the existing five-year benchmark be established from the date by which the last narrowband PCS license under the existing allocation is granted, to compensate for delays in equipment availability); AirTouch Reply Comments at 5 (expressing support for PCIA or CONXUS proposal); Arch Reply Comments at 16, Benbow Reply Comments at 5-6 (supporting CONXUS/PCIA proposal if theirs is not adopted).

⁷³ One regional licensee has requested an extension of the five-year construction deadline, and one regional licensee has failed to notify the Commission that it has met its five-year construction requirement.

anticompetitive behavior.⁷⁴ According to PageNet, a substantial service standard will invite speculators to participate in the auction, retain the licenses they win for years without building out, thereby drive up prices, and then sell the licenses for substantially more than they paid at auction.⁷⁵ PCIA and CONXUS also assert that a substantial service standard will enable fraudulent "application mills" to flourish.⁷⁶ We find, however, that a substantial service option may be very useful in allowing licensees to use spectrum flexibly to provide new and innovative services uninhibited by a requirement that they meet a specific coverage benchmark or lose their license. We also recognize that rural areas may be more difficult to serve than urban areas. Permitting licensees to make a substantial service showing may encourage them to build out in rural areas because it would give them the option of satisfying our construction requirements by serving rural areas without necessarily having to meet either the population or composite area benchmarks set forth in our current rules. We find that these advantages outweigh any concerns commenters have regarding speculation or anticompetitive conduct.

27. PageNet argues that because the substantial service concept has never been clearly defined, the Commission will have the difficult burden of assessing, on a case-by-case basis, whether licensees that claim this option have actually met the requirement.⁷⁷ PageNet claims that this, in turn, will lead to prolonged litigation, which will delay service to the public and prevent incumbents from expanding their systems.⁷⁸ Ameritech supports the substantial service proposal, but proposes a modified definition of that term for narrowband PCS that will clearly identify the required level of service. Ameritech recommends that substantial service be defined as "service that is sound, favorable, and reasonably capable of meeting an appropriate portion of the public demand for one or more of the communications services of which the system is capable under the Commission's rules."⁷⁹ In the past we have offered guidance to licensees in other services with regard to factors that we would consider in evaluating whether the substantial service requirement has been met. We gave such guidance to WCS licensees and recently extended this same guidance to our paging licensees.⁸⁰ We shall apply these same factors to evaluations of substantial service showings made by narrowband PCS licensees.⁸¹ Thus, the

⁷⁴ PageNet Comments at 12-13; PCIA Comments at 13-14, Reply Comments at 3; CONXUS Comments at 11-13, Reply Comments at 8 (also arguing that the reason for adopting such a requirement for services such as 900 MHz SMR, *i.e.*, the presence of incumbent licensees, does not exist for narrowband PCS). *See also* Benbow Comments at 13-14; Celpage Comments at 11, Reply Comments at 6; Merlin Comments at 7 (arguing that spectrum warehousing is most likely to arise in the event the Commission adopts larger geographic licensing areas, such as national or regional); Metrocall Comments at 9, Reply Comments at 5.

⁷⁵ PageNet Comments at 12-13.

⁷⁶ PCIA Comments at 13-14; CONXUS Comments at 11-12.

⁷⁷ PageNet Comments at 13-14.

⁷⁸ PageNet Comments at 14-15, Reply Comments at 10-11. *See also* PCIA Comments at 14, Reply Comments at 4 (arguing that substantial service standard is "so vague a term as to be virtually meaningless," and will lead to protracted litigation should the Commission revoke an operator's license on grounds that it has failed to meet this standard); PageMart Comments at 6-7; RTG Comments at 12; Preferred Networks Reply Comments at 6.

⁷⁹ Ameritech Comments at 3-5, Reply Comments at 6. *See also* Metrocall Comments at 9; Celpage Comments at 11 (arguing that the Commission must clarify what is meant by the term "substantial service," claiming that the current definition is susceptible to abuse and will be difficult to enforce).

⁸⁰ *WCS Report and Order*, 12 FCC Rcd at 10843-44, ¶ 113; *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10072-73, ¶ 70.

⁸¹ In the *Paging MO&O/Third Report and Order*, we also established a presumption that the substantial service requirement is satisfied if an MEA or EA licensee provides coverage to two-thirds of the population in the unserved

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. A licensee may also demonstrate that it is providing service to unserved or underserved areas without covering a specific composite area or percentage of the population. Because the substantial service requirement can be met in a variety of ways, the Wireless Telecommunications Bureau (Bureau) will review licensees' showings on a case-by-case basis. Using the guiding principles outlined here, we do not expect undue difficulty in determining whether a licensee has met the requirement.

28. Just as we believe that the addition of a substantial service alternative to our rules will be helpful to entities seeking to provide innovative services, we also recognize that there may be instances in which a flexible approach to our narrowband PCS operational or technical rules would be helpful to such entities and would promote the development of new services. Although we have crafted these rules to generally provide for a wide range of technologies and business plans, there may be instances where particular circumstances render the rules unreasonable or overly burdensome, to the extent the public interest would be harmed by their strict application. We therefore will give expedited treatment to requests for waivers of these operational and technical rules, and, to the extent we find that such waivers will not harm other licensees and will be in the public interest, we will consider them favorably.

C. Construction and Coverage Requirements for Nationwide Paging Licensees

29. Background. In the *Paging MO&O/Third Report and Order*, the Commission considered the issue of coverage requirements for nationwide geographic area paging licensees and deferred any decision on the issue until it resolved similar matters in the instant narrowband PCS rulemaking proceeding. The Commission stated that doing so would allow it to fully consider whether regulatory parity with respect to coverage requirements is appropriate not only for nationwide and MEA/EA paging licensees, but also for nationwide paging and narrowband PCS carriers. The paging and narrowband PCS services operate on adjacent bands in the 900 MHz spectrum and the Commission has previously observed a close, potentially competitive relationship between the two services. Additionally, the Commission stated that deferring the decision on coverage requirements for nationwide geographic area paging licensees would enable it to better look into the question of whether nationwide paging carriers provide nationwide coverage that extends to rural areas.⁸²

30. Discussion. Although MEA/EA paging licensees and nationwide narrowband PCS licensees are currently subject to build-out requirements, we will not adopt coverage requirements for nationwide paging licensees that would be in addition to the build-out requirements they have already met. As noted above, nationwide paging licensees have already met pre-existing build-out rules, which were imposed in connection with nationwide exclusivity

area of the MEA or EA within five years of license grant. See *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10072, ¶ 69. This presumption is not applicable here because narrowband PCS spectrum is unencumbered.

⁸² *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10093-100, ¶¶ 120-130. We incorporate into the instant proceeding comments submitted in the paging docket regarding the issue of coverage requirements for nationwide paging licensees.

rules prior to the advent of geographic area licensing.⁸³ Having carefully examined our databases reflecting the extent of construction by nationwide paging licensees, we find that all of these licensees are already providing sufficient coverage to meet the five-year benchmark applicable to nationwide narrowband PCS licensees, and some of them have met the ten-year benchmark.⁸⁴ Thus, while we expect nationwide paging licensees to build out their systems to the same extent as nationwide narrowband PCS licensees, we conclude that the build-out requirements set forth in our previous rules were adequate to promote coverage by nationwide paging licensees that is equivalent to that of nationwide narrowband PCS licensees, which have recently reached their five-year benchmark. In addition, while we anticipate that nationwide paging licensees' build-out in rural areas should increase in the future given that licensees appear to have already constructed in most urban areas, we have no evidence that nationwide paging licensees' build-out in rural areas is deficient. We therefore conclude that it is unnecessary to impose a new layer of regulations on nationwide paging licensees by adopting additional coverage requirements for them. However, if we are presented with evidence in the future that there is a need to impose a requirement equivalent to the ten-year nationwide narrowband PCS benchmark, we will consider revisiting this issue in the future.

D. Applicability of the Part 1 General Competitive Bidding Rules

31. Background. In the *Competitive Bidding Third Report and Order*, the Commission decided to award narrowband PCS licenses using the simultaneous multiple round auction methodology.⁸⁵ In light of the experience gained from the nationwide narrowband PCS auction, it later revised or clarified provisions governing minimum opening bids, activity rules, pre-auction procedures, the release of bidder information, and collusion.⁸⁶ In the *Narrowband PCS R&O/Further Notice*, the Commission generally reaffirmed the auction methodology adopted for narrowband PCS, sought comment on whether modifications should be made to the overall auction design adopted for narrowband PCS, and revisited certain provisions governing the general bidding procedures for narrowband PCS.⁸⁷

32. More specifically, in the *Narrowband PCS R&O/Further Notice*, the Commission tentatively concluded that it would conduct one simultaneous multiple round auction for the remaining spectrum that has been allocated for narrowband PCS.⁸⁸ The Commission sought comment on this proposal and asked how it should group for auction certain categories of spectrum if it decided to conduct more than one auction for the remaining narrowband PCS

⁸³ *Id.* at 10097-98, ¶¶ 125-126; *see supra* note 69.

⁸⁴ We note that our analysis underestimates the number of transmitters constructed by nationwide paging licensees because licensees are not required to notify the Commission of each site in their systems. Section 22.165 permits a licensee to construct additional transmitters under certain conditions without notifying the Commission. 47 C.F.R. § 22.165. Therefore, once a nationwide licensee had constructed and notified the Commission regarding a sufficient number of sites to obtain nationwide exclusivity, it was not required to notify the Commission of subsequent construction. Although many licensees continued to file notifications with the Commission voluntarily, many did not. Thus, our licensing records reflect a portion, but not all, of the sites constructed by nationwide paging licensees.

⁸⁵ *Competitive Bidding Third Report and Order*, 9 FCC Rcd at 2948, ¶ 18.

⁸⁶ *See generally Competitive Bidding Third MO&O/Further Notice*, 10 FCC Rcd 175.

⁸⁷ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 12998-13002, ¶¶ 48-58.

⁸⁸ *Id.* at 13000-13001, ¶ 55.

spectrum.⁸⁹ Furthermore, in the *Narrowband PCS R&O/Further Notice*, the Commission sought comment on the manner in which it should auction the one megahertz of reserve spectrum. Specifically, it sought comment on whether it should use its current narrowband PCS rules, as set forth in Part 24, or whether other rules should be adopted to auction this spectrum.⁹⁰ In addition, it sought comment on whether or not we should auction the reserve spectrum in conjunction with other narrowband spectrum, whether there should be any special provisions for small businesses, and if so, whether to adopt the small business size definition and special provisions proposed therein.⁹¹ Last, the Commission proposed to modify the activity rule to retain discretion to keep an auction open even if no new valid bids or proactive waivers are received in a single round.⁹²

33. Discussion. Following the release of the *Narrowband PCS R&O/Further Notice* in April 1997, the Commission adopted the *Part 1 Third Report and Order*, in which it adopted rules establishing uniform competitive bidding provisions for all auctionable services.⁹³ Thus, the general competitive bidding rules found in Subpart Q of Part 1 of the Commission's rules, including provisions adopted in the *Part 1 Third Report and Order*, will serve as the general competitive bidding rules for all future auctions, regardless of whether service-specific rules have previously been adopted.⁹⁴ Subpart Q of Part 1 of the Commission's rules will apply to narrowband PCS, unless we determine that, with regard to particular matters, the adoption of service-specific rules is warranted.⁹⁵ Most commenters that addressed this issue support conducting a single simultaneous multiple round auction for all of the remaining narrowband PCS licenses.⁹⁶ Arch contends that having more than one auction would drain the resources of both bidders and the Commission, and therefore would be less efficient.⁹⁷ We note that the Balanced Budget Act of 1997 provides that before the issuance of bidding rules, the Commission must provide adequate time for parties to comment on proposed auction procedures.⁹⁸ In response to this statutory requirement, the Commission has directed the Bureau, under its existing delegated authority, to seek comment prior to the commencement of each auction on a variety of auction-specific operational issues.⁹⁹ Under Part 1 and consistent with this approach, matters such as auction design, license grouping, activity rules, minimum opening bids, and

⁸⁹ *Id.*

⁹⁰ *Id.* at 13002, ¶ 58.

⁹¹ *Id.*

⁹² *Id.* at 13000, ¶ 52.

⁹³ Amendment of Part 1 of the Commission's Rules -- Competitive Bidding Procedures, WT Docket No. 97-82, Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, 4660-4685 MHz, ET Docket No. 94-32, *Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374 (1997) (modified by Erratum, DA 98-419 (rel. March 2, 1998)) (*Part 1 Third Report and Order*).

⁹⁴ *Id.* at 382, ¶ 5.

⁹⁵ See *infra* at ¶¶ 46-51 regarding the attribution standard that will be applied for purposes of determining small business status.

⁹⁶ Ameritech Comments at 9; Arch Comments at 10; Merlin Comments at 8; Preferred Networks Reply Comments at 5. Numerous commenters, however, oppose auctioning the one megahertz of reserve spectrum at this time. See *infra* at ¶¶ 81-83.

⁹⁷ Arch Comments at 10.

⁹⁸ See *Part 1 Third Report and Order*, 13 FCC Rcd at 447, ¶ 123 (citing Balanced Budget Act of 1997, § 3002(a)(1)(B)(iv)).

⁹⁹ *Part 1 Third Report and Order*, 13 FCC Rcd at 447-49, ¶¶ 124-25.

reserve prices will be determined by the Bureau pursuant to its delegated authority.¹⁰⁰

34. We decline to adopt the suggestion that we require applicants to identify each frequency in each market on which they wish to bid and submit upfront payments for each individual license.¹⁰¹ We believe that our current rules, which require an upfront payment to cover only those licenses on which an applicant intends to bid in any one round, are appropriate because they allow bidders the flexibility to pursue backup strategies during the course of an auction in the event they are unable to obtain their first choice of licenses. As we have noted previously, such flexibility is crucial to an efficient auction and optimal license assignment.¹⁰² We also decline to modify our anti-collusion rule to provide a safe harbor for carriers engaged in negotiations regarding mergers or intercarrier agreements.¹⁰³ We have declined to create such a safe harbor in the past,¹⁰⁴ and we have not been presented with an adequate justification for departing from that decision here.¹⁰⁵ Finally, certain commenters urge the Commission to provide auction participants with the identity of all competing bidders.¹⁰⁶ It has generally been our practice to disclose the identity of all bidders in Commission auctions. If, however, in the case of particular auctions a limit on such information appears warranted, the Bureau will, consistent with the Balanced Budget Act of 1997 and current practice, seek comment on the issue in a public notice prior to the auction.

E. Treatment of Designated Entities

1. Effect of *Adarand Constructors, Inc. v. Peña*

35. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission identified three narrowband PCS auction provisions designed to promote participation by women- and minority-owned businesses that were potentially affected by the Supreme Court's decision in *Adarand*: the attribution rules, bidding credits, and installment payments.¹⁰⁷ The Commission tentatively concluded that the record in support of its race-based narrowband PCS rules lacked sufficient evidentiary support to withstand the strict scrutiny required under *Adarand*. The Commission sought comment on whether its provisions promote a compelling governmental interest and, more particularly, whether compensating for discrimination in lending practices and in practices in the communications industry constitutes such an interest.¹⁰⁸ With

¹⁰⁰ See *Part 1 Third Report and Order*, 13 FCC Rcd at 448-49, 454-55, ¶¶ 125, 139; see also 47 C.F.R. §§ 0.131(c), 0.331, and 0.332.

¹⁰¹ PCIA Comments at 16-17, Reply Comments at 13; PageMart Comments at 8, Reply Comments at 6-7; PageNet Comments at 23, Reply Comments at 12.

¹⁰² See *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10082, ¶ 90.

¹⁰³ PCIA Comments at 18-19, Reply Comments at 14.

¹⁰⁴ See *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10084-85, ¶¶ 95-97; *Part 1 Third Report and Order*, 13 FCC Rcd at 466-67, ¶ 162.

¹⁰⁵ We note that we have recently sought comment on our anti-collusion rule in our Part 1 proceeding. See Amendment of Part 1 of the Commission's Rules – Competitive Bidding Procedures, WT Docket No. 97-82, *Third Further Notice of Proposed Rulemaking*, 14 FCC Rcd 21558 (1999).

¹⁰⁶ PCIA Comments at 17, Reply Comments at 13-14; PageMart Comments at 8, Reply Comments at 6-7; PageNet Comments at 23-24, Reply Comments at 12-13.

¹⁰⁷ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13004, ¶ 61. See also *Adarand*, 515 U.S. 200 (1995).

¹⁰⁸ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13004-13005, ¶ 62.

respect to the Commission's gender-based provisions, it sought comment on whether there are remedial or nonremedial goals that would satisfy the "important governmental objective" requirement of the intermediate scrutiny standard, and whether its gender-based rules are "substantially related" to the achievement of such objectives.¹⁰⁹

36. Finally, based on its tentative conclusions in the *Narrowband PCS R&O/Further Notice*, the Commission proposed to offer only race- and gender-neutral provisions for narrowband PCS. It proposed that bidding credits and installment payments should be made available to small businesses -- including those owned by minorities and women.¹¹⁰

37. Discussion. We decline to offer race- and gender-based designated entity provisions for narrowband PCS at this time. Commenters in this proceeding have submitted no evidence or data on the issue of race- or gender-based auction provisions. One commenter believes that the Commission is not able to support race and gender preferences, pursuant to *Adarand*, and, accordingly, supports elimination of the minority-/woman-owned business classification.¹¹¹ We conclude that we do not have a sufficient record to support such special provisions at this time.

38. We remain committed to meeting the statutory objectives of promoting economic opportunity and competition, avoiding excessive concentration of licenses, and ensuring access to new and innovative technologies by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women. We believe the bidding credits we adopt here for small businesses will assist in meeting these objectives because many minority- and women-owned entities are small businesses and will therefore qualify for these special provisions.¹¹² We also believe that our standardization of the rules regarding definitions of eligible entities, unjust enrichment, and bidding credits in the *Part 1 Third Report and Order* will assist small and minority- and women-owned businesses because the resulting predictability will facilitate effective business planning and capital accumulation.¹¹³ We note too that the Commission's Office of Communications Business Opportunities has initiated several studies to gather information regarding barriers to entry faced by minority- and women-owned firms that wish to participate, or have participated, in Commission auctions. Further, we have recently commenced several new studies to explore additional entry barriers and to seek further evidence of racial and gender discrimination against potential licensees. In addition, we will continue to track the rate of participation in our auctions by minority- and women-owned firms and evaluate this information with other data gathered to determine whether provisions to promote participation by minorities and women can satisfy judicial scrutiny. If a sufficient record can be adduced, we may consider race- and gender-based auction provisions in the future.

¹⁰⁹ *Id.* at 13005, ¶ 63. See also *United States v. Virginia*, 518 U.S. 515 (1996) (*VMI*). In *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." *Id.* at 531. 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 524.

¹¹⁰ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13005, ¶ 64.

¹¹¹ CONXUS Comments at 18-19.

¹¹² See *infra* at ¶¶ 43-44.

¹¹³ See *Part 1 Third Report and Order*, 13 FCC Rcd at 386, ¶ 14.

2. Designated Entity Provisions

a. Small Businesses and Rural Telephone Companies

39. Background. In the *Competitive Bidding Second Memorandum Opinion and Order*, the Commission concluded that it would define small businesses on a service-specific basis, taking into account the capital requirements and other characteristics of each particular service.¹¹⁴ In the *Narrowband PCS R&O/Further Notice*, the Commission proposed to limit eligibility for bidding credits and installment payments to small businesses. It proposed a "two-tiered" approach in defining small businesses, based on a \$40 million and \$15 million definition.¹¹⁵ Specifically, the Commission sought comment on whether \$40 million and \$15 million are appropriate thresholds, and whether such tiers are necessary to ensure that small businesses, including those owned by minorities and women, have the opportunity to participate in providing service on an MTA, regional, and nationwide basis. The Commission asked whether the thresholds should be higher or lower, based on the types of companies that are likely to benefit from the special provisions proposed, and whether different definitions of small businesses should be used for different channel blocks.¹¹⁶

40. Discussion. We will define a small business as an entity with average annual gross revenues not to exceed \$40 million for the preceding three years and a very small business as an entity with average annual gross revenues not to exceed \$15 million for the preceding three years. We note that these are the same definitions of small and very small business that apply to broadband PCS C and F blocks.¹¹⁷ Most commenters who address the issue favor the adoption of small business designations.¹¹⁸ Merlin supports the proposed small business designations yet opposes the establishment of different definitions of small business for different channel blocks.¹¹⁹ We agree with Merlin that having different definitions of small business for different blocks would be unduly complicated. We also find that our decision not to establish more regional and nationwide licenses makes it unnecessary to further consider this issue. Therefore, we will not adopt different definitions and thresholds for different channel blocks.

41. Two commenters, RTG and NTCA, believe the Commission has violated Section 309(j) of the Communications Act by failing to consider rural telephone companies or provide them with opportunities to participate in the provision of narrowband PCS. We disagree. We are not persuaded by their argument that the Commission should provide special bidding credits for rural telephone companies in order to meet its obligation to ensure that rural telephone companies have the opportunity to participate in spectrum-based services.¹²⁰ We have no

¹¹⁴ Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Second Memorandum Opinion and Order*, 9 FCC Rcd 7245, 7269, ¶ 145 (1994). The Commission also affirmed in the *Part 1 Third Report and Order* that it would continue this approach. *Part 1 Third Report and Order*, 13 FCC Rcd at 388, ¶ 18.

¹¹⁵ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13006, ¶ 66.

¹¹⁶ *Id.* at 13006, ¶ 67.

¹¹⁷ See 47 C.F.R. § 24.720(b).

¹¹⁸ Benbow Comments at 16-17; Celpage Comments at 14-15; CONXUS Comments at 19; Merlin Comments at 9-10; PCIA Comments at 20.

¹¹⁹ Merlin Comments at 10-11.

¹²⁰ RTG Comments at 2-5; NTCA Reply Comments at 2.

evidence that large rural telephone companies encounter barriers to capital formation comparable to those faced by other designated entities. Moreover, the vast majority of rural telephone companies that have participated in the Commission's auctions to date have identified themselves as small businesses and have qualified for bidding credits on that basis.¹²¹ Thus, we believe that small business bidding credits are sufficient to ensure that rural telephone companies have opportunities to participate in spectrum-based services, and we do not believe that rural telephone companies will be unable to compete in narrowband PCS auctions or the messaging marketplace without special financial preferences. We also note that PageNet contends that rural telephone companies have advantages related to substantial existing infrastructures in their service areas.¹²² We therefore decline to adopt financial preferences designed specifically for rural telephone companies.

b. Bidding Credits

42. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission proposed to eliminate the bidding credit scheme previously adopted, under which women- and minority-owned businesses were eligible for a bidding credit for certain designated channels. The Commission proposed to replace this scheme by offering bidding credits to all small businesses on a "tiered" basis. It proposed that very small businesses with gross revenues of not more than \$15 million for the preceding three years be entitled to a 15 percent bidding credit and small businesses with gross revenues of not more than \$40 million for the preceding three years be entitled to a 10 percent bidding credit.¹²³

43. Discussion. The majority of commenters who address this issue generally support the adoption of bidding credits for small businesses.¹²⁴ However, commenters hold varying views concerning the proposed level of bidding credits. While RTG states generally that the proposed bidding credits are appropriate to allow designated entities to compete for BTA-based licenses, it contends that rural telephone companies should receive a 20 percent bidding credit when bidding on BTA-based licenses.¹²⁵ RTG further argues that the Commission should, if it adopts larger license areas, award small businesses and rural telephone companies a 40 percent bidding credit for nationwide and regional licenses and a 30 percent bidding credit for MTA licenses¹²⁶ and award very small businesses a 50 percent bidding credit for nationwide and regional licenses and a 40 percent credit for MTA licenses.¹²⁷ Merlin argues that it would be appropriate to have a bidding credit of 25 percent for small businesses at the \$40 million level and a bidding credit of

¹²¹ To date, 89 percent of rural telephone companies participating in Commission auctions of wireless licenses have identified themselves as small businesses.

¹²² PageNet Reply Comments at 9.

¹²³ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13009, ¶ 74.

¹²⁴ Benbow Comments at 16-17; Celpage Comments at 14-15; CONXUS Comments at 19-22; PCIA Comments at 19; RTG Comments at 17-20; Merlin Comments at 16-20; Narrowband PCS Companies Reply Comments at 3. *But see* AirTouch Reply Comments at 8-10 (arguing that bidding credits skew auction results); PageNet Comments at 24 (arguing that bidding credits are not necessary); PageMart Comments at 8-9 (arguing that bidding credits would likely inflate prices without a concurrent beneficial effect).

¹²⁵ RTG Comments at 5, 17.

¹²⁶ *Id.* at 19.

¹²⁷ *Id.*

40 percent for very small businesses at the \$15 million level.¹²⁸ Merlin contends that applicants for narrowband PCS licenses need higher bidding credits than applicants in similar narrowband commercial mobile radio services because narrowband PCS is unencumbered spectrum that winning bidders will have to develop from the ground up. It further asserts that larger bidding credits are "absolutely necessary" if the Commission shifts to regional and nationwide licenses.¹²⁹ CONXUS contends that similarly situated applicants in the narrowband PCS auction must be afforded the same financing options provided in the F block broadband PCS rules, *i.e.*, 15 percent for small businesses and 25 percent for very small businesses, on the grounds that the slight difference in regulatory treatment of these two similar services may harm a narrowband PCS licensee's ability to compete with its broadband PCS competitor purely.¹³⁰

44. In the *Part 1 Third Report and Order*, the Commission established a standard schedule of bidding credits for small businesses.¹³¹ While these bidding credits are higher than some previously adopted for specific services, the Commission concluded in the *Part 1 Third Report and Order* that, based on its auction experience and the fact that it had decided to suspend the use of installment payments, the schedule adopted would provide adequate opportunities for small businesses to participate in spectrum auctions.¹³² We believe that the levels of bidding credits in this schedule, which are higher than those proposed in the *Narrowband PCS R&O/Further Notice*, are sufficient to promote the participation of small businesses in the provision of narrowband PCS. We therefore see no reason to deviate from them here, and we decline to adopt higher levels as recommended by Merlin and RTG. Thus, as provided in Section 1.2110(e)(2) of our rules, small and very small businesses will be eligible for bidding credits as follows: Small businesses, *i.e.*, those entities with average annual gross revenues for the preceding three years not exceeding \$40 million, will receive a 15 percent bidding credit.¹³³ Very small businesses, *i.e.*, those entities with average annual gross revenues for the preceding three years not exceeding \$15 million, will receive a 25 percent bidding credit.¹³⁴ These bidding credits will be available on all channels for which licenses are auctioned. Thus, we will not restrict bidding credits to certain channels.

c. Attribution

45. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission proposed to replace the "control group" structure established for narrowband PCS in the *Competitive Bidding Third Memorandum Opinion and Order* with a "controlling principal" standard by which it would attribute the gross revenues of all controlling principals and affiliates of an applicant in order to determine whether it qualifies as a small business.¹³⁵ Moreover, for purposes of determining small business status, the Commission proposed not to impose specific

¹²⁸ Merlin Comments at 17.

¹²⁹ *Id.* at 17-18.

¹³⁰ CONXUS Comments at 20.

¹³¹ *Part 1 Third Report and Order*, 13 FCC Rcd at 402-04, ¶¶ 45-48; 47 C.F.R. § 1.2110(e).

¹³² *Id.* at 403-04, ¶ 47.

¹³³ 47 C.F.R. § 1.2110(e)(2)(iii).

¹³⁴ 47 C.F.R. § 1.2110(e)(2)(ii).

¹³⁵ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13007-13008, ¶ 70.

equity requirements on the controlling principals that meet our small business definition.¹³⁶ It also proposed to eliminate the \$40 million individual net worth limitation.¹³⁷

46. Discussion. Most commenters who address this issue generally urge the Commission to adopt a simplified attribution test for determining eligibility for small business preferences,¹³⁸ and certain commenters support the use of a controlling principals test.¹³⁹ While supporting such a test, Merlin encourages the Commission to give guidance to the public regarding what factors it will consider in evaluating whether an applicant meets the tests for *de facto* or *de jure* control.¹⁴⁰

47. We will adopt, with a slight modification, our proposal to attribute the gross revenues of the applicant, the applicant's controlling principals, and its affiliates. Thus, we will consider "controlling interests" rather than "controlling principals," in making determinations regarding small business status. This approach is consistent with the standard proposed in the *Part 1 NPRM*, wherein the Commission proposed a "controlling interest" standard as the general attribution rule for all future auctions.¹⁴¹ Under this standard, eligibility for small business provisions would be determined by attributing the gross revenues of the applicant, its controlling interests, which are defined to include those that exercise either *de jure* or *de facto* control, and its affiliates.¹⁴² Typically, *de jure* control is evidenced by holdings of greater than 50 percent of the voting stock of a corporation or, in the case of a partnership, general partnership interests. *De facto* control is determined on a case-by-case basis, and includes the criteria set forth in *Ellis Thompson*.¹⁴³ The "controlling interest" definition we adopt here also provides specific guidance on calculation of various types of ownership interests. For purposes of calculating equity held in an applicant, the definition provides for full dilution of certain stock interests, warrants, and convertible debentures.¹⁴⁴ In addition, the definition provides for attribution of partnership and other ownership interests, including stock interests held in trust, non-voting stock, and indirect ownership through intervening corporations.

¹³⁶ *Id.*

¹³⁷ *Id.* at 13008-13009, ¶ 72. See 47 C.F.R. § 24.309(c)(2)(iii).

¹³⁸ Arch Comments at 14-15; Celpage Comments at 9; CONXUS Comments at 19; Merlin Comments at 12; Preferred Network Reply Comments at 5-6;.

¹³⁹ Merlin Comments at 12; CONXUS Comments at 19. See also Celpage Comments at 9.

¹⁴⁰ Merlin Comments at 12.

¹⁴¹ Amendment of Part 1 of the Commission's Rules -- Competitive Bidding Proceeding, WT Docket No. 97-82, *Order, Memorandum Opinion and Order and Notice of Proposed Rule Making*, 12 FCC Rcd 5686, 5703, ¶ 28 (*Part 1 NPRM*). See also *Part 1 Third Report and Order*, 13 FCC Rcd at 477-78, ¶ 185-86.

¹⁴² In the *Part 1 Second Further Notice of Proposed Rule Making*, we sought comment on whether we should impose a minimum equity requirement (e.g., 15 percent) on any person or entity identified as a controlling interest. See *Part 1 Third Report and Order*, 13 FCC Rcd at 478, ¶ 186.

¹⁴³ See *Ellis Thompson Corp.*, 76 Rad. Reg. 2d (P & F) 1125, 1127-28, 9 FCC Rcd 7138, 7140-42 (1994) (*Ellis Thompson*), in which the Commission identified the following factors used to determine control of a business: (1) use of facilities and equipment; (2) control of day-to-day operations; (3) control of policy decisions; (4) personnel responsibilities; (5) control of financial obligations; and (6) receipt of monies and profits. See also *Intermountain Microwave*, 24 Rad. Reg. (P & F) 983 (1963) (*Intermountain Microwave*), in which the Commission set forth guidelines for evaluating control of a business; Stephen F. Sewell, *Assignments and Transfers of Control of FCC Authorizations Under Section 309(d) of the Communications Act of 1934*, 43 FED. COMM. L.J. 277 (1991); In re Application of Baker Creek Communications, L.P., *Memorandum Opinion and Order*, 13 FCC Rcd 18709 (1998).

¹⁴⁴ See 47 C.F.R. § 1.2110(b)(4)(v).

48. When an applicant cannot identify controlling interests under the definition, the revenues of all interest holders in the applicant and their affiliates will be counted. For example, if a company is owned by four entities, each of which has 25 percent voting equity and no shareholders' agreement or voting trust gives any one of them control of the company, the revenues of all four entities and their affiliates must be counted. Treating such a corporation in this way is similar to our treatment of a general partnership—all general partners are considered to have a controlling interest. This rule looks to substance over form in assessing eligibility for small business status.

49. Our intent is to provide flexibility that will enable legitimate small businesses to attract passive financing in a highly competitive and evolving telecommunications marketplace. At the same time, we believe that this controlling interest threshold will function effectively to ensure that only those entities truly meriting small business status are eligible for small business provisions. In particular, we believe that the *de jure* and *de facto* concepts of control used to determine controlling interests in an applicant and the application of our affiliation rules will effectively prevent larger firms from illegitimately seeking status as a small business. Moreover, as we discuss below, we believe that requiring detailed ownership information, as set forth in Part 1 of our rules, will ensure that applicants claiming small business status qualify for such status.¹⁴⁵

50. Merlin suggests that, in setting out guidelines, the Commission should be sure that its rules are broadly written to adapt to various new business structures, such as limited liability companies (LLCs), without forcing the new businesses to fit into archaic business structure patterns.¹⁴⁶ Merlin argues that the Commission should treat widely held LLCs as if they were widely held companies, allowing them to exclude as attributable investors those equity holders who are not in control of the applicant, as envisioned by *Intermountain Microwave*.¹⁴⁷ Merlin also suggests that, for purposes of defining whether a company is widely held, whatever its form of business organization, the Commission should formulate its rules to state that a widely held company is one in which no single equity holder has 15 percent or more of the equity of the applicant.¹⁴⁸ We find that the controlling interest standard we adopt today, along with the definition of “affiliate” set forth in Part 1 of our rules,¹⁴⁹ adequately addresses Merlin’s concerns. In light of this standard, which provides specific guidance on the calculation of various types of ownership interests, we find that it is unnecessary to adopt separate rules for widely held companies as Merlin suggests.

51. The one commenter addressing the issue of individual net worth limitations supports the Commission's view that such a requirement under the existing narrowband PCS rules should be eliminated.¹⁵⁰ We continue to believe that the obstacles faced by small businesses, including women- and minority-owned small businesses, in raising capital are not necessarily confined to

¹⁴⁵ See 47 C.F.R. § 1.2112. See *infra* ¶¶ 76-77.

¹⁴⁶ Merlin Comments at 13. See also Celpage Reply Comments at 5 (suggesting that the Commission adopt rules defining *de jure* control for non-corporate entities such as partnerships and LLCs).

¹⁴⁷ Merlin Comments at 13 (citing *Intermountain Microwave*, 24 Rad. Reg. (P & F) 983 (1963)).

¹⁴⁸ *Id.* at 13-14.

¹⁴⁹ 47 C.F.R. § 1.2110(b)(4). See also *Part 1 Third Report and Order*, 13 FCC Rcd at 392, ¶¶ 26-27.

¹⁵⁰ CONXUS Comments at 19.

small business principals and affiliates with limited personal net worth. Moreover, personal net worth limits are difficult to apply and enforce. We will therefore eliminate the \$40 million individual net worth limitation currently applicable in our narrowband PCS rules.

3. Payment Matters

52. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission tentatively concluded that quarterly installment payments were appropriate for small businesses acquiring licenses for narrowband PCS. At that time, the Commission believed that installment payments would promote participation by small businesses that, because of their size and lack of access to capital, need such incentives to participate in new spectrum opportunities such as narrowband PCS. The Commission sought comment on a proposal to establish installment payment plans for two categories of small businesses and on alternative installment payment plans.¹⁵¹ In addition, it proposed provisions concerning late payments and interest accruing during grace periods.¹⁵²

53. Discussion. We decline to adopt installment payment plans for small businesses participating in narrowband PCS auctions in the future. In the Part 1 proceeding we determined on the basis of the record that installment payments should not be used in the immediate future as a means of financing small business participation in our auction program.¹⁵³ There, we noted, *inter alia*, that our experience has demonstrated that installment payments may not be necessary to ensure a meaningful opportunity for small businesses to participate successfully in our auction program.¹⁵⁴

54. We continue to believe that bidding credits, coupled with the Commission's partitioning and disaggregation policies, are sufficient to overcome barriers faced by small businesses seeking to participate in the narrowband PCS marketplace. As a result of our decision to suspend installment payments, and our adoption of rules governing late payments and defaults in Part 1, Subpart Q,¹⁵⁵ issues related to installment payments regarding interest, late payment fees, and payment schedules raised in the *Narrowband PCS R&O/Further Notice* are now moot. Current licensees paying for their licenses in installments are subject to the late payment and default provisions in Part 1.

4. Unjust Enrichment, Holding Period and Transfer Restrictions

55. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission sought comment on the applicability of unjust enrichment, assignment, and transfer restrictions to our proposed narrowband PCS rules, as they apply to designated entities.¹⁵⁶ It also sought comment

¹⁵¹ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13011, ¶¶ 79-80.

¹⁵² *Id.* at 13011-12, ¶¶ 81-82.

¹⁵³ *Part 1 Third Report and Order*, 13 FCC Rcd at 397-98, ¶ 38. Several commenters support the use of installment payments. Benbow Comments at 16-17; Celpage Comments at 14-15, Reply Comments at 7; CONXUS Comments at 21-22; PCIA Comments at 19; Narrowband PCS Companies Reply Comments at 5. *But see* PageMart Comments at 9; PageNet Reply Comments at 8 (opposing installment payments).

¹⁵⁴ *Part 1 Third Report and Order*, 13 FCC Rcd at 397-98, ¶ 38.

¹⁵⁵ See 47 C.F.R. § 1.2110(f)(4).

¹⁵⁶ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13014, ¶ 86.

on whether it should eliminate the service-specific unjust enrichment rule for narrowband PCS in favor of the rule proposed in its *Part 1 NPRM*, which conforms with the broadband PCS unjust enrichment rules.¹⁵⁷ Furthermore, in light of its decision not to establish an entrepreneurs' block for narrowband PCS, the Commission tentatively concluded that it is not necessary to propose holding and transfer restrictions for the licenses.¹⁵⁸

56. Discussion. Certain commenters support the proposed application of the general Part 1 unjust enrichment provisions to all narrowband PCS transactions, including partitioning and disaggregation arrangements.¹⁵⁹ We believe that when a small business entity applies to transfer or partition its license or disaggregate spectrum, unjust enrichment rules are necessary in order to ensure that non-small business entities cannot take indirect advantage of our small business incentives. Yet, we no longer need to establish a separate unjust enrichment requirement because we have adopted a uniform requirement in Part 1, Subpart Q, of our rules for all services.¹⁶⁰ Accordingly, we will use the Part 1 unjust enrichment provisions for narrowband PCS.¹⁶¹ The Part 1 unjust enrichment rules address assignments and transfers between entities qualifying for different tiers of bidding credits. These rules are similar to unjust enrichment rules adopted for the 800 MHz SMR auction for determining the actual proportion of bidding credits to be refunded and reducing the amount of unjust enrichment payments due on transfer, partition or disaggregation based upon the amount of time the initial license has been held. We note that because we now offer bidding credits only to small businesses, our unjust enrichment rules will apply to any case where a licensee that qualified for a bidding credit seeks to transfer or partition to an entity that is not a small business. In addition, our revised attribution rules will apply in determining small business status. Finally, we will not adopt a holding period or transfer restrictions for narrowband PCS licenses that would be in addition to our unjust enrichment rules.

F. Partitioning and Disaggregation

1. Partitioning

57. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission proposed a geographic partitioning scheme similar to that adopted for broadband PCS.¹⁶² Specifically, the Commission proposed to allow all narrowband PCS licensees to partition at any time to any entity eligible for a narrowband PCS license, and it proposed to permit partitioning of narrowband PCS licenses based on any geographic area defined by the parties to a partitioning arrangement. The Commission further proposed that a partitionee be authorized to hold its license for the remainder of the original ten-year license term.¹⁶³ The Commission sought comment on whether the partitioning scheme would help eliminate market entry barriers for

¹⁵⁷ *Id.* (citing *Part 1 NPRM*, 12 FCC Rcd at 5713, ¶ 43).

¹⁵⁸ *Id.*

¹⁵⁹ Celpage Comments at 14; Metrocall Comments at 12.

¹⁶⁰ See *Part 1 Third Report and Order*, 13 FCC Rcd at 406-07, ¶¶ 52-53.

¹⁶¹ See 47 C.F.R. § 1.2111.

¹⁶² *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13014-15, ¶¶ 88-89.

¹⁶³ *Id.* at 13015-16, ¶¶ 89-91.

small businesses pursuant to Section 257 of the Communications Act.¹⁶⁴

58. The Commission also proposed to give parties to a partitioning arrangement two options for meeting the applicable narrowband PCS construction requirements: Under the first proposed option, the partitionee may certify that it will satisfy the same construction requirements as the original licensee, with the partitionee meeting the requirements in its partitioned area and the partitioner responsible for satisfying the requirements in the area it has retained. Under the second proposed option, the original licensee may certify that it has already met or will meet its five-year construction requirement and that it will meet the 10-year requirement for the entire market involved.¹⁶⁵ The Commission further proposed to require that the parties file supporting documentation showing compliance with the applicable construction requirements. The Commission sought comment on whether the option of partitioning could be extended to incumbent narrowband PCS licensees as well.¹⁶⁶

59. Finally, the Commission sought comment on the type of unjust enrichment requirements it should adopt as conditions for approval of an application for a partial transfer of a license owned by a qualified small business to a non-small business entity or to an entity qualifying for a lower bidding credit than the original licensee.¹⁶⁷ It proposed to establish separate installment payment and default obligations for small business licensees and partitionees.¹⁶⁸

60. Discussion. A number of commenters support the Commission's proposal to allow geographic partitioning of narrowband spectrum,¹⁶⁹ and we will permit all narrowband PCS licensees, including incumbents, to partition at any time to any entity eligible for a narrowband PCS license. We believe that small businesses and others may face certain barriers to entry into the provision of spectrum-based services, which may be addressed by allowing qualifying entities to acquire a partitioned license.¹⁷⁰ We also believe that the partitioning policy we adopt here will allow licensees to use spectrum more efficiently, speed service to underserved areas, and stimulate competition. We find that partitioning is a *bona fide* funding source that will help licensees construct their systems and provide valuable service to the public. Moreover, our decision here is consistent with our decisions to permit geographic partitioning in other services,¹⁷¹ including broadband PCS,¹⁷² Multipoint Distribution Service (MDS),¹⁷³ 800 MHz

¹⁶⁴ *Id.* at 13015, ¶ 89.

¹⁶⁵ *Id.* at 13016, ¶ 92 .

¹⁶⁶ *Id.*

¹⁶⁷ *Id.* at 13016-17, ¶¶ 94-95.

¹⁶⁸ *Id.* at 13016, ¶ 93.

¹⁶⁹ Ameritech Comments at 8; Celpage Comments at 13; CONXUS Comments at 17; Merlin Comments at 21; Metrocall Comments at 10; PCIA Comments at 16-18, Reply Comments at 14-15; RTG Comments at 21.

¹⁷⁰ See Celpage Comments at 7; Metrocall Comments at 6 (contending that the proposed partitioning rules will give smaller companies greater flexibility in forming bidding consortia or joint ventures, and therefore may enable small businesses to compete more effectively for licenses).

¹⁷¹ See Celpage Comments at 13; Metrocall Comments at 11 (arguing that narrowband PCS licensees should not be treated differently than licensees in other services with regard to partitioning).

¹⁷² Geographic Partitioning and Spectrum Disaggregation by Commercial Mobile Radio Services Licensees, WT Docket No. 96-148, Implementation of Section 257 of the Communications Act -- Elimination of Market Entry Barriers, GN Docket No. 96-113, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 21831 (1996) (*Broadband PCS Partitioning and Disaggregation Order*).

and 900 MHz SMR,¹⁷⁴ 39 GHz fixed point-to-point microwave,¹⁷⁵ WCS,¹⁷⁶ Local Multipoint Distribution Service (LMDS),¹⁷⁷ Maritime Services,¹⁷⁸ and paging.¹⁷⁹ Strict enforcement of our construction benchmarks and transfer rules will deter speculators and abuse.¹⁸⁰

61. We agree with Celpage and Metrocall that partitioning should be permitted based on any geographic area defined by the parties to a partitioning arrangement.¹⁸¹ We believe, like Ameritech, that partitioning rights will allow licensees to fashion their actual service areas to better reflect their business plans.¹⁸² We also agree with those commenters who argue that partitionees should hold their licenses for the remainder of the partitioner's ten-year license term.¹⁸³ We find that this term 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.

62. In addition, we will adopt our proposal to provide parties to a partitioning arrangement with two options for meeting the applicable narrowband PCS construction requirements.¹⁸⁴ Under the first option, the partitionee may certify that it will satisfy the same construction requirements as the original licensee, with the partitionee meeting the requirements in its partitioned area and the partitioner responsible for satisfying the requirements in the area it has retained. Under the second option, the original licensee may certify that it has already met or will meet its five-year construction requirement and that it will meet the 10-year requirement for

¹⁷³ 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, 9614-15, ¶¶ 46-47 (1995).

¹⁷⁴ Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, PR Docket No. 93-144, Implementation of Sections 3(n) and 322 of the Communications Act -- Regulatory Treatment of Mobile Services, GN Docket No. 93-252, Implementation of Sections 309(j) of the Communications Act -- Competitive Bidding, PP Docket No. 93-253, *Second Report and Order*, 12 FCC Rcd 19079, 19127-53, ¶¶ 138-227 (1997) (*800 MHz SMR Second Report and Order*).

¹⁷⁵ Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, ET Docket No. 95-183, Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, 37.0-38.6 GHz and 38.6-40.0 GHz, PP Docket No. 93-253, *Report and Order and Second Notice of Proposed Rule Making*, 12 FCC Rcd 18600, 18634-36, ¶ 70-74 (1997).

¹⁷⁶ *WCS Report and Order*, 12 FCC Rcd at 10836-39, ¶¶ 96-103.

¹⁷⁷ Rule Making to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, To Reallocate the 29.5-30.0 GHz Frequency Band, To Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, CC Docket No. 92-297, *Fourth Report and Order*, 13 FCC Rcd 11655 (1998) (*LMDS Fourth Report and Order*).

¹⁷⁸ Amendment of the Commission's Rules Concerning Maritime Communications, PR Docket No. 92-257, *Third Report and Order and Memorandum Opinion and Order*, 13 FCC Rcd 19853, 19872-74, ¶ 38-43 (1998).

¹⁷⁹ *Paging Second Report and Order*, 12 FCC Rcd at 2817, ¶ 192; *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10101, ¶¶ 132-33.

¹⁸⁰ See PageNet Reply Comments at 11 (contending that the Commission should not allow partitioning except for good cause shown on a waiver basis or until after the narrowband PCS licensee has fulfilled the second construction benchmark because partitioning could lead to abuse during and after the auction). See also PCIA Comments at 18.

¹⁸¹ Celpage Comments at 13; Metrocall Comments at 11.

¹⁸² Ameritech Comments at 8.

¹⁸³ Celpage Comments at 13; Metrocall Comments at 11.

¹⁸⁴ As discussed above, narrowband PCS licensees must meet five- and ten-year construction benchmarks or satisfy a substantial service option. See *supra* at ¶ 24.

the entire market involved. We do not agree with RTG that the second option should not be offered because of the possibility that partitionees will rely on the original licensee to meet build-out requirements and the original licensee will fail to fulfill its obligation.¹⁸⁵ All parties should understand that, under the first option, both the partitioner and partitionee are individually responsible for meeting the coverage requirements for their respective areas. Failure by either party to meet its coverage requirements will result in the automatic cancellation of its license without further Commission action. Under the second option, only the partitioner's license will be cancelled if it fails to meet the coverage requirements for the entire geographic area. The partitionee will not be subject to coverage requirements except for those necessary to obtain license renewal.

63. Consistent with our treatment of the WCS and 800 MHz and 900 MHz SMR services, 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. The partitioned service area must be defined using counties, FCC-defined service areas (*e.g.*, EAs), or the boundaries of the area described in terms of latitude and longitude. When partitioning counties or FCC-defined service areas, the applicant need only supply the county and state, or market number. When describing the boundary of an area, however, the applicant must supply sets of coordinates (latitude and longitude referenced to the North American Datum of 1983 -- NAD83) along the boundary sufficient to describe the area. An applicant may use as few as three sets of coordinates, up to a maximum of 120 sets of coordinates in order to describe an area. Applicants are free to aggregate several areas described by coordinates in order to accurately describe the boundary of the partitioned area.

2. Disaggregation

64. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission sought comment on the feasibility of spectrum disaggregation for narrowband PCS.¹⁸⁶ The Commission also asked commenters to address a number of other issues related to disaggregation, including whether minimum disaggregation standards are necessary for narrowband PCS services, whether nationwide licensees should be permitted to disaggregate spectrum, and what the respective obligations of the participants in a disaggregation transfer should be.¹⁸⁷ The Commission asked, among other things, what each party's responsibility should be with respect to the disaggregator's original auctions-related obligation in the event of default or bankruptcy by any of the parties to the disaggregation transfer.¹⁸⁸

65. The Commission proposed to permit all small business licensees to disaggregate to similarly qualifying parties as well as parties not eligible for small business provisions. It tentatively concluded that if we permit a qualified small business licensee to disaggregate to a non-small business entity, the disaggregating licensee should be required to repay any benefits it received from the small business special provisions on a proportional basis; and that if we permit

¹⁸⁵ RTG Comments at 22.

¹⁸⁶ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13017, ¶ 96.

¹⁸⁷ *Id.* at 13017, ¶¶ 96-97.

¹⁸⁸ *Id.* at 13017, ¶ 97.

a small business licensee to disaggregate to another qualified small business that does not qualify for the same level of bidding credit as the disaggregating licensee, the disaggregating licensee should be required to repay a portion of the benefit it received.¹⁸⁹

66. Discussion. We concur with those commenters that support the Commission's proposal to allow narrowband PCS licensees to disaggregate their spectrum.¹⁹⁰ Ameritech states that the ability to disaggregate spectrum will allow licensees to tailor their services to marketplace demand.¹⁹¹ CONXUS, however, claims that disaggregation, as well as partitioning, will not be effective tools in facilitating small business acquisition of additional narrowband PCS spectrum because there is no guarantee that winning bidders will agree to such arrangements or the costs may be prohibitive for small companies.¹⁹² CONXUS also opposes the adoption of partitioning and disaggregation rules if the Commission intends to use them as the only means (*i.e.*, in place of bidding credits) of promoting small business entry into the narrowband PCS industry.¹⁹³ Other commenters believe that disaggregation is not technically feasible and therefore it is unnecessary for the Commission to address the issue at this time.¹⁹⁴

67. We will permit all narrowband PCS licensees, including nationwide licensees, to disaggregate portions of their spectrum in the same general manner as we have for licensees in other CMRS services where we have adopted disaggregation.¹⁹⁵ We conclude that marketplace forces should determine whether it is technically feasible to disaggregate narrowband spectrum. Our experience in broadband PCS demonstrates that parties are capable of determining the economic and technical feasibility of disaggregation arrangements and will make sound business judgments regarding the propriety of these arrangements.¹⁹⁶ We also conclude that allowing narrowband PCS spectrum disaggregation could potentially expedite the introduction of service to underserved areas and provide increased flexibility to licensees. Finally, we believe that disaggregation combined with bidding credits and geographic partitioning will facilitate the acquisition of narrowband PCS spectrum by small businesses.

68. We find that it is unnecessary to require a party that wishes to disaggregate to retain a minimum amount of spectrum. Thus, consistent with our treatment of the broadband PCS, WCS, 800 MHz and 900 MHz SMR, and paging services, we will allow disaggregating parties to negotiate channelization plans among themselves as a part of their disaggregation agreements.¹⁹⁷

¹⁸⁹ *Id.* at 13017-18, ¶¶ 98-99.

¹⁹⁰ Ameritech Comments at 8; Celpage Comments at 13; CONXUS Comments at 17; Metrocall Comments at 10-11.

¹⁹¹ Ameritech Comments at 8.

¹⁹² CONXUS Comments at 8-9.

¹⁹³ CONXUS at 17; Merlin Comments at 21; RTG Comments at 10-11 (arguing that partitioning alone will not provide designated entities with a meaningful opportunity to provide narrowband PCS services, especially if, as the Commission claims, large service areas are necessary to support viable narrowband PCS services). See also Ameritech Comments at 8.

¹⁹⁴ Celpage and Metrocall do not believe it is advisable to allow disaggregation of the response channels at this time since the Commission's waiver procedures provide sufficient flexibility in the event a licensee can demonstrate a technically viable disaggregation proposal. Celpage Comments at 13-14; Metrocall Comments at 11.

¹⁹⁵ See Ameritech Comments at 8 (supporting the Commission's proposal to allow the disaggregation of narrowband PCS spectrum under the same rules it has adopted for broadband PCS).

¹⁹⁶ See *Broadband PCS Partitioning and Disaggregation Order*, 11 FCC Rcd at 21860, ¶ 49.

¹⁹⁷ See *id.*; *WCS Report and Order*, 12 FCC Rcd at 10837, ¶ 99 (1997); *800 MHz SMR Second Report and*

Parties will be permitted to disaggregate spectrum in any increments as long as such disaggregation is otherwise consistent with our rules. Disaggregates will be authorized to hold licenses for the remainder of the disaggregator's original ten-year term. As we concluded with respect to partitioners, the disaggregator should not be entitled to confer greater rights than it was awarded under the initial license grant.

69. With respect to meeting construction requirements, we will permit disaggregating parties to choose between two options: Under the first option, the parties may agree that either the disaggregator or the disaggregatee will be responsible for meeting the coverage requirements for the geographic service area. Under the second option, the disaggregator and disaggregatee may certify that they will share the responsibility for meeting the coverage requirements for the entire geographic area. We believe that these options are appropriate because our rules for disaggregation should allow for flexibility, and also be consistent with our rules established in other services. Our rules do not dictate the amount of spectrum that licensees must use to meet coverage requirements. Thus, a licensee who disaggregates a portion of its spectrum block to another party may still meet its preexisting construction requirements for the entire geographic area by using the spectrum it has retained. Similarly, a party who receives a portion of the spectrum from the original licensee can also meet the construction requirements for the entire geographic area by using the spectrum it has acquired. In addition, parties can share responsibility for meeting construction requirements for the entire geographic area by combining areas they serve.

70. Under the first option, if the certifying party fails to meet the coverage requirements for the entire geographic area, that party's license will be subject to cancellation, but the non-certifying party's license will not be affected. However, if the parties to a disaggregation agreement select the second option and jointly fail to satisfy the coverage requirements for the entire geographic area, both parties' licenses will be subject to cancellation. We will require parties seeking Commission approval of a disaggregation agreement to include a certification as to which party or parties will be responsible for meeting the construction requirements.

3. Combined Partitioning and Disaggregation

71. Consistent with our treatment of the broadband PCS, WCS, 800 MHz and 900 MHz SMR, and paging services, we will permit combined partitioning and disaggregation.¹⁹⁸ This will allow narrowband PCS licensees the flexibility to design the types of agreements they desire, and will advance the goals of providing competitive service offerings and encouraging new market entrants. In the event that there is a conflict in the application of the partitioning and disaggregation rules, the partitioning rules will prevail. As explained below, when a combination of partitioning and disaggregation is proposed, we will use both the population of the partitioned area and the amount of spectrum disaggregated to calculate unjust enrichment payments.

Order, 12 FCC Rcd at 19141-42, ¶ 183 (1997) (adopting disaggregation rules for all 800 MHz and 900 MHz SMR licensees); *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10106-07, ¶ 147.

¹⁹⁸ See *Broadband PCS Partitioning and Disaggregation Order*, 11 FCC Rcd at 21866, ¶ 66; *WCS Report and Order*, 12 FCC Rcd at 10839, ¶ 102; *800 MHz SMR Second Report and Order*, 12 FCC Rcd at 19150-51, ¶ 217; *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10110, ¶ 157.

4. Rules Applicable to Small Businesses

72. As noted above, the Commission sought comment in the *Narrowband PCS R&O/Further Notice* on how to fashion unjust enrichment rules that would apply to small businesses that partition or disaggregate their licenses to entities that are not small businesses or that do not qualify for the same level of bidding credit. Since that time, the Commission has adopted a general rule that determines the amount of unjust enrichment payments assessed for all current and future licensees that engage in partitioning and disaggregation.¹⁹⁹ Specifically, the rules adopted in the *Part 1 Third Report and Order* indicate that if a licensee seeks to partition any portion of its geographic area, the amount of the unjust enrichment payment will be calculated based on the ratio of the population in the partitioned area to the overall population of the license area.²⁰⁰ In the event of disaggregation, the amount of the unjust enrichment payment will be based upon the ratio of the amount of spectrum disaggregated to the amount of spectrum held by the disaggregating licensee.²⁰¹ The unjust enrichment provisions adopted in the *Part 1 Third Report and Order* will apply to any narrowband PCS licensee that receives a bidding credit and later elects to partition or disaggregate its license. When combined partitioning and disaggregation is proposed, we will, consistent with our rules for other services, use a combination of both population of the partitioned area and amount of spectrum disaggregated to make these pro rata calculations.²⁰²

73. As noted above, installment payments have been suspended as a means of financing small businesses and other designated entities seeking to secure spectrum licenses. Nonetheless, there are a small number of current narrowband licensees that qualified as small businesses for installment payment plans. If such a licensee sought to partition or disaggregate its license to another small business, the partitionee or disaggregatee would be permitted to pay its portion of the remaining obligation on the license in installments. If, however, such a licensee sought to partition or disaggregate its license to a non-small business, our Part 1 unjust enrichment rules would apply.²⁰³

74. Because the Commission has suspended its installment payment program, the issue of default obligations for parties entering into partitioning and disaggregation agreements is moot with respect to future licensees. With respect to current small business licensees that may partition or disaggregate to other small businesses, we conclude that a default on one party's payment obligation should not affect the other party's license.

G. Ownership Disclosure Requirements

75. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission proposed to modify the ownership disclosure requirements for narrowband PCS.²⁰⁴ Consistent

¹⁹⁹ See 47 C.F.R. § 1.2111(e); *Part 1 Third Report and Order*, 13 FCC Rcd at 409, ¶ 57.

²⁰⁰ *Id.*

²⁰¹ *Id.*

²⁰² See, e.g., *Broadband PCS Partitioning and Disaggregation Order*, 11 FCC Rcd at 21866, ¶ 66; *LMDS Fourth Report and Order*, 13 FCC Rcd at 11669, ¶ 25; *Paging MO&O/Third Report and Order*, 14 FCC Rcd at 10111, ¶ 160.

²⁰³ See 47 C.F.R. § 1.2111.

²⁰⁴ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 13019, ¶ 102.

with its proposal for a uniform ownership disclosure requirement in its general competitive bidding rules, the Commission tentatively concluded that relaxing the disclosure requirements would serve the public interest by reducing the administrative burdens associated with the auction process. It sought comment on this proposal and whether a separate schedule to the FCC Form 175 should be designed, which would formalize the ownership disclosure requirements for the short-form application.²⁰⁵

76. Discussion. Those commenters who addressed the issue support the Commission's proposal to simplify ownership disclosure requirements.²⁰⁶ Celpage argues that the Commission's current requirement that an applicant list all businesses in which any 5 percent or greater stockholder of the applicant holds a 5 percent or greater interest is unnecessarily burdensome and likely to chill legitimate institutional investment in narrowband PCS applicants without countervailing benefits.²⁰⁷ Benbow contends that the Commission should streamline the ownership reporting requirements consistent with the Commission's decision to do so in previous auctions on the grounds that this will eliminate unnecessary paperwork and expedite the commencement of auctions.²⁰⁸

77. We continue to believe that requiring detailed ownership information is necessary to ensure that all applicants claiming small business status qualify for such status. Disclosure of ownership information also aids bidders by providing them with information about their auction competitors and alerting them to entities subject to our anti-collusion rules. We no longer need to establish separate ownership disclosure requirements for narrowband PCS, however, because we have adopted a uniform requirement in Part 1, Subpart Q, of our rules for all services.²⁰⁹ These rules require all auction applicants to disclose the real party or parties in interest by including as an exhibit to their short-form applications detailed ownership information. Moreover, they require that applicants list controlling interests as well as all parties holding a 10 percent or greater interest in the applicant and any affiliates of these interest holders.²¹⁰ We believe that these rules, combined with the controlling interest standard we adopt today and our definition of "affiliate,"²¹¹ will help to ensure that only qualifying applicants obtain the benefits of our small business provisions, without being unduly burdensome.

H. Construction Prior to Grant of Licenses for Narrowband and Broadband PCS

78. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission proposed to modify its pre-licensing construction rules for both broadband and narrowband PCS in order to expedite service to the public. Specifically, the Commission proposed to allow long-form applicants to begin construction of facilities at their own risk regardless of whether petitions to deny have been filed.²¹²

²⁰⁵

Id.

²⁰⁶

Celpage Comments at 10; Benbow Reply Comments at 8.

²⁰⁷

Celpage Comments at 10.

²⁰⁸

Benbow Reply Comments at 8-9.

²⁰⁹

47 C.F.R. § 1.2112. *See also Part 1 Third Report and Order*, 13 FCC Rcd at 417-21, ¶¶ 73-78.

²¹⁰

See 47 C.F.R. § 1.2112.

²¹¹

See 47 C.F.R. § 1.2110(b)(4).

²¹²

Narrowband PCS R&O/Further Notice, 12 FCC Rcd at 13020, ¶ 104.

79. Discussion. We received no comment on this issue. We will apply our Part 1 rules, which permit applicants for all licenses awarded by competitive bidding to begin construction of facilities prior to the grant of their applications.²¹³ We believe that allowing pre-grant construction furthers the statutory objective of rapidly deploying new technologies, products, and services for the benefit of the public.²¹⁴ Pre-grant construction will be subject to any narrowband PCS service restrictions, including but not limited to antenna restrictions, environmental requirements, and international coordination. Any applicant engaging in pre-grant construction does so entirely at its own risk, and the Commission will not take such activity into account in ruling on any petition to deny.

V. SECOND FURTHER NOTICE OF PROPOSED RULE MAKING

80. Background. In the *Narrowband PCS R&O/Further Notice*, the Commission tentatively concluded that the one megahertz of spectrum that it had reserved in the *PCS First Report and Order* should be channelized and licensed. The Commission believed that licensing this spectrum would serve the public interest by facilitating competition, opening the market to new entrants, and allowing existing narrowband PCS licensees to expand their systems through access to additional spectrum.²¹⁵

81. Discussion. We continue to believe that the one megahertz of narrowband PCS reserve spectrum should be licensed. Most commenters oppose the channelization and licensing of this spectrum, arguing that the reasons the Commission reserved it in 1993 are still valid,²¹⁶ that narrowband PCS is still in the developmental stages and it is still unclear how this spectrum will be needed,²¹⁷ that it is not necessary to auction the reserve spectrum now to achieve a competitive marketplace,²¹⁸ and that it would be best to wait and see how the market develops or undertake further study to determine the needs of the market.²¹⁹ Certain commenters also

²¹³ 47 C.F.R. § 1.2113.

²¹⁴ 47 U.S.C. § 309(j)(3)(A).

²¹⁵ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 12991, ¶ 34. In 1993, the Commission allocated three megahertz of spectrum for narrowband PCS. Only two megahertz of this spectrum was divided into specific channels and made available for licensing, however, because the Commission determined that service proposals for narrowband PCS did not require use of the entire narrowband PCS allocation at that time. *PCS First Report and Order*, 8 FCC Rcd at 7165, ¶ 19.

²¹⁶ AirTouch Comments at 15; Arch Comments at 9, Reply Comments at 8; Benbow Comments at 5. See also PageNet Comments at 10.

²¹⁷ Arch Comments at 10, Reply Comments at 8; Benbow Comments at 6, Reply Comments at 7; Celpage Comments at 7, Reply Comments at 4; CONXUS Comments at 15-16, Reply Comments at 9; Metrocall Comments at 6, Reply Comments at 4; Morgan Stanley Comments at 4; Motorola Comments at 7, Reply Comments at 2-3; PageMart Comments at 4-5, Reply Comments at 5; PageNet Reply Comments at 2; PCIA Reply Comments at 6.

²¹⁸ PageNet Comments at 5, Reply Comments at 3-4.

²¹⁹ American Paging Comments at 2, 5; Ameritech Comments at 7; CONXUS Comments at 15-17; PageMart Comments at 6; PCIA Comments at 9; Arch Reply Comments at 8; Benbow Reply Comments at 7; Celpage Reply Comments at 4; Metrocall Reply Comments at 4; PageNet Reply Comments at 2, 3, 5. See also PageNet Comments at 7. We note that PCIA commissioned a study of the narrowband PCS market that was completed in 1998. While it discusses restraints on the development of the narrowband PCS market, as well as drivers of the market, we find nothing in the study that would cause us to conclude that we should continue to hold

contend that licensing the reserve spectrum would devalue existing narrowband PCS licenses,²²⁰ or would be unlikely to raise substantial sums.²²¹ Merlin argues, on the other hand, that channelizing and auctioning the reserve spectrum will increase opportunities for new entrants to provide narrowband PCS services.²²²

82. Although a number of commenters argue that it is premature to auction this spectrum,²²³ we note that considerable time has elapsed since these comments were filed. Moreover, as we noted in our recent Policy Statement on the reallocation of spectrum, the demand for spectrum has increased dramatically as a result of explosive growth in wireless communications²²⁴ and there is very little unencumbered spectrum available for new services.²²⁵ Thus, consistent with our conclusion in the Policy Statement that the Commission must focus on increasing the amount of spectrum available for use,²²⁶ we tentatively conclude that it is in the public interest to proceed with licensing the one megahertz of narrowband PCS spectrum that has been held in reserve. We believe that this spectrum, which is unencumbered, should be made available to those interested in bringing new and innovative services to the public, and that the Commission should not create an artificial shortage of spectrum that might limit service options. To facilitate the introduction of new and innovative services, we also tentatively conclude that the reserve spectrum should be auctioned along with all of the other remaining unlicensed narrowband PCS spectrum. We believe that auctioning this spectrum together, in conjunction with our decision to eliminate the narrowband PCS aggregation limit, would make it easier for innovators who need more spectrum than is currently allotted to individual licenses to acquire the spectrum they need. If we ultimately decide that it is not in the public interest to auction the reserve spectrum at the same time as other remaining unlicensed spectrum, we nonetheless believe that we should proceed now with channelizing the reserve spectrum so that we are prepared to license it without delay when the market is ready to use it. We seek comment on these tentative conclusions.

83. We seek comment on how the reserve spectrum should be channelized. We acknowledge that the current record does not provide an adequate basis for determining the best

the one megahertz in reserve. See Letter to Dan Phythyon, Chief, Wireless Telecommunications Bureau, from Robert L. Hoggarth, Senior Vice President, PCIA; "An Analysis of the Narrowband PCS (NPCS) Market in the U.S.," filed Oct. 27, 1998.

²²⁰ Ameritech Comments at 7, Reply Comments at 8; Celpage Comments at 8; Metrocall Comments at 7; Morgan Stanley Comments at 4. See also PageNet Comments at 9 (arguing that if the reserve spectrum is auctioned now, winners likely will pay substantially lower prices for their licenses, giving them an unfair competitive edge over incumbents).

²²¹ Morgan Stanley Comments at 4; PageMart Comments at 4-5.

²²² Merlin Comments at 5. See also RTG Comments at 20-21 (arguing that the Commission should channelize and license the reserve spectrum along with the response channels to encourage participation of small businesses and designated entities by reducing overhead of participating). But see PCIA Reply Comments at 8-9 (opposing such arguments).

²²³ Metrocall Comments at 6; Celpage Comments at 7; PCIA Comments at 8-10. See also Benbow Comments at 6; Arch Comments at 10; Motorola Comments at 7; CONXUS Reply Comments at 8-9; Preferred Networks Reply Comments at 6-7.

²²⁴ Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, *Policy Statement*, FCC 99-354 (released Nov. 22, 1999), ¶ 2.

²²⁵ *Id.* at ¶ 5.

²²⁶ *Id.* at ¶ 2.

channelization plan for this spectrum. In the *Narrowband PCS R&O/Further Notice*, we sought comment on establishing two 300 kHz licenses and one 400 kHz license.²²⁷ Given that we will permit spectrum disaggregation, for which there was support in the comments,²²⁸ we believe that it may make sense to create channel blocks that are larger than those currently in existence. Moreover, larger blocks may be useful to those seeking to provide innovative services. In addition, in light of our tentative conclusion that this spectrum should be auctioned simultaneously with all other remaining unlicensed narrowband PCS spectrum, we seek comment on whether the unlicensed spectrum that has already been channelized should be rechannelized to create licenses authorizing the use of larger blocks of spectrum. We ask commenters to address whether such rechannelization would facilitate the development of innovative services or otherwise assist narrowband PCS licensees in competing against other wireless sectors.

VI. CONCLUSION

84. The modifications to our narrowband PCS rules that we adopt today include the elimination of BTAs for future licensing, the establishment of a "substantial service" alternative to our previously established construction benchmarks, the elimination of the narrowband PCS spectrum aggregation limit, and the lifting of eligibility restrictions on paging response channels. We believe that these rule changes will facilitate the development of narrowband PCS; encourage competition, spectrum efficiency, and innovation; reduce the regulatory burden on spectrum users; and promote service to the largest feasible number of consumers. With respect to our narrowband PCS competitive bidding rules, we eliminate race- and gender-based provisions for the present time and we apply our Part 1 rules except as otherwise provided. We expect the bidding credits we adopt for small businesses to also assist many women- and minority-owned entities, as well as rural telephone companies, and we also believe that our standardized Part 1 rules will benefit such businesses by facilitating effective business planning and capital accumulation. In the Further Notice, we tentatively conclude that we should license the one megahertz of narrowband PCS spectrum that has been held in reserve, and we seek comment on how to channelize this one megahertz and the other remaining unlicensed narrowband PCS spectrum.

VII. PROCEDURAL MATTERS

A. Regulatory Flexibility Analysis

85. A Final Regulatory Flexibility Analysis, pursuant to the Regulatory Flexibility Act, 5 U.S.C. § 604, is contained in Appendix C. An Initial Regulatory Flexibility Analysis for the Second Further Notice of Proposed Rule Making is contained in Appendix D.

B. Ex Parte Presentations

86. This is a permit-but-disclose notice and comment rule making proceeding. *Ex parte* presentations are permitted except during the Sunshine Agenda period, provided they are

²²⁷ *Narrowband PCS R&O/Further Notice*, 12 FCC Rcd at 12991, ¶ 34.

²²⁸ See Ameritech Comments at 8; Celpage Comments at 13; CONXUS Comments at 17; Metrocall Comments at 10.

disclosed as provided in the Commission's rules. *See generally* 47 C.F.R. §§ 1.1202, 1.1203, and 1.1206(a).

C. Comment Dates

87. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before July 5, 2000, and reply comments on or before July 20, 2000. All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. *See* Electronic Filing of Documents in Rulemaking Proceedings, 13 FCC Rcd 11322, 11326 (1998). Parties who choose to file by paper must file an original and four copies of each filing. If interested parties want each Commissioner to receive a personal copy of their comments, an original plus nine copies must be filed. If more than one docket or rulemaking number appear in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. All comments and reply comments must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Room TW-A325, Washington, D.C. 20554. One copy should also be sent to the Commission's copy contractor. In addition, a courtesy copy should be delivered to Alice Elder, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554.

88. Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be submitted to: Alice Elder, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using Word or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding (including GEN Docket No. 90-314, ET Docket No. 92-100, PP Docket No. 93-253), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase: "Disk Copy – Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, International Transcription Service, Inc., 1231 20th Street, N.W., Washington, D.C. 20037.

89. Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and a reference to GEN Docket No. 90-314, ET Docket No. 92-100, and PP Docket No. 93-253. Parties may also submit an electronic comment by Internet e-mail. To obtain filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in

the body of the message: "get form <your e-mail address>." A sample form and directions will be sent in reply. Or you may obtain a copy of the ASCII Electronic Transmittal Form (FORM-ET) at <http://www.fcc.gov/efile/email.html>.

90. Documents filed in this proceeding will be available for public inspection during regular business hours at the FCC Reference Information Center, 445 12th Street, S.W., Washington, D.C. 20554, and will be placed on the Commission's Internet site.

D. Paperwork Reduction Act Analysis

91. This Second Report and Order and Second Further Notice of Proposed Rule Making contains either a proposed or modified information collection. As part of its continuing effort to reduce paperwork burdens, the Commission invites the general public and the Office of Management and Budget ("OMB") to take this opportunity to comment on the information collections contained in this Second Report and Order and Second Further Notice of Proposed Rule Making, as required by the Paperwork Reduction Act of 1995, Pub. L. No. 104-13. Public and agency comments are due at the same time as other comments on this Second Report and Order and Second Further Notice of Proposed Rule Making. Written comments must be submitted by OMB on the proposed and/or modified information collections on or before [60 days after date of publication in the Federal Register]. Comments should address: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

92. In addition to filing comments with the Secretary, a copy of any comments on the information collection(s) contained herein should be submitted to Judy Boley, Federal Communications Commission, Room 1-C804, 445 12th Street, S.W., Washington, DC 20554, or via the Internet to jboley@fcc.gov and to Edward Springer, OMB Desk Officer, 10236 NEOB, 725 - 17th Street, N.W., Washington, DC 20503 or via the Internet to edward.springer@omb.eop.gov."

E. Further Information

93. For further information concerning this proceeding, contact Alice Elder, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, at (202) 418-0660.

F. Ordering Clauses

94. Authority for issuance of this Second Report and Order and Second Further Notice of Proposed Rule Making is contained in Sections 4(i), 257, 303(r), and 309(j) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 257, 303(r), and 309(j).

95. Accordingly, IT IS ORDERED that Part 24 of the Commission's Rules IS AMENDED as specified in Appendix B, effective 60 days after publication in the Federal

Register. Information collections contained in these rules will be effective upon OMB approval.

96. IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this Second Report and Order and Second Further Notice of Proposed Rule Making, including the Final Regulatory Flexibility Analysis and Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas
Secretary

APPENDIX A -- LIST OF COMMENTERSComments

AirTouch Paging (AirTouch)
American Paging, Inc. (American Paging)
Ameritech Mobile Services, Inc. (Ameritech)
Arch Communications Group, Inc. (Arch)
Benbow PCS Ventures, Inc. (Benbow)
Celpage, Inc. (Celpage)
CONXUS Communications, Inc. (CONXUS)
Merlin Telecom, Inc. (Merlin)
Metrocall, Inc. (Metrocall)
Morgan Stanley Partnerships (Morgan Stanley)
Motorola, Inc. (Motorola)
PageMart, Inc. (PageMart)
Paging Network, Inc. (PageNet)
Personal Communications Industry Association (PCIA)
Rural Telecommunications Group (RTG)

Reply Comments

AirTouch
American Paging
Ameritech
Arch
Benbow
Celpage
CONXUS
MAP Mobile Communications, Inc. (MAP Mobile)
Metrocall
Motorola
Narrowband PCS Companies (Narrowband PCS Companies)
National Telephone Cooperative Association (NTCA)
PageMart Wireless, Inc. (PageMart)
PageNet
PCIA
Preferred Networks, Inc. (Preferred Networks)

Ex Parte Communications

PCIA: October 27, 1998; February 10, 2000

APPENDIX B – FINAL RULES

Part 24 of Chapter 1 of Title 47 of the Code of Federal Regulations is amended as follows:

1. The authority citation for part 24 continues to read as follows:

Authority: 47 U.S.C. 154, 301, 302, 303, 309 and 332.

§ 24.101 [Removed and Reserved]

2. Remove and reserve § 24.101.

3. Section 24.102 is amended by removing paragraph (d) and by revising the introductory text to read as follows:

§ 24.102 Service areas.

Narrowband PCS service areas are nationwide, regional, and Major Trading Areas (MTAs), as defined below. MTAs are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38-39 (MTA Map). Rand McNally organizes the 50 States and the District of Columbia into 47 MTAs. The MTA Map is available for public inspection in the FCC's Library, Room TW-B505, 445 12th Street SW, Washington, D.C.

* * * * *

4. Section 24.103 is amended by removing the Note and by revising paragraphs (a), (b), (c), (d), (e) introductory text, and (f) to read as follows:

§ 24.103 Construction requirements.

(a) Nationwide narrowband PCS licensees shall construct base stations that provide coverage to a composite area of 750,000 square kilometers or serve 37.5 percent of the U.S. population within five years of initial license grant date; and, shall construct base stations that provide coverage to a composite area of 1,500,000 square kilometers or serve 75 percent of the U.S. population within ten years of initial license grant date. Licensees may, in the alternative, provide substantial service to the licensed area as provided in paragraph (d) of this section.

(b) Regional narrowband PCS licensees shall construct base stations that provide coverage to a composite area of 150,000 square kilometers or serve 37.5 percent of the population of the service area within five years of initial license grant date; and, shall construct base stations that provide coverage to a composite area of 300,000 square kilometers or serve 75 percent of the service area population within ten years of initial license grant date. Licensees may, in the alternative, provide substantial service to the licensed area as provided in paragraph (d) of this section.

(c) MTA narrowband PCS licensees shall construct base stations that provide coverage to a composite area of 75,000 square kilometers or 25 percent of the geographic area, or serve 37.5

percent of the population of the service area within five years of initial license grant date; and, shall construct base stations that provide coverage to a composite area of 150,000 square kilometers or 50 percent of the geographic area, or serve 75 percent of the population of the service area within ten years of initial license grant date. Licensees may, in the alternative, provide substantial service to the licensed area as provided in paragraph (d) of this section.

(d) As an alternative to the requirements of paragraphs (a), (b), and (c) of this section, narrowband PCS licensees may demonstrate that, no later than ten years after the initial grant of their license, they provide substantial service to their licensed area. Licensees choosing this option must notify the FCC by filing FCC Form 601, no later than 15 days after the end of the five year period following the initial grant of their license, that they plan to satisfy the alternative requirement to provide substantial service. "Substantial service" is defined as service that is sound, favorable, and substantially above a level of mediocre service that would barely warrant renewal.

(e) In demonstrating compliance with the construction requirements set forth in this section, licensees must base their calculations on signal field strengths that ensure reliable service for the technology utilized. Licensees may determine the population of geographic areas included within their service contours using either the 1990 census or the 2000 census, but not both.

* * * * *

(f) Upon meeting the five and ten year benchmarks in paragraphs (a), (b), and (c) of this section, or upon meeting the substantial service alternative in paragraph (d), licensees shall notify the Commission by filing FCC Form 601 and including a map and other supporting documentation that demonstrate the required geographic area coverage, population coverage, or substantial service to the licensed area. The notification must be filed with the Commission within 15 days of the expiration of the relevant period.

* * * * *

5. A new section 24.104 is added to read as follows:

§ 24.104 Partitioning and disaggregation.

Nationwide, regional, and MTA licensees may apply to partition their authorized geographic service area or disaggregate their authorized spectrum at any time following grant of their geographic area authorizations.

(a) Application required. Parties seeking approval for partitioning and/or disaggregation shall apply for partial assignment of a license pursuant to § 1.948 of this chapter.

(b) Partitioning. In the case of partitioning, applicants and licensees must file FCC Form 603 pursuant to § 1.948 of this chapter and describe the partitioned service area on a schedule to the application. The partitioned service area shall be defined by up to 120 sets of geographic coordinates at points at every 3 degrees azimuth from a point within the partitioned service area

along the partitioned service area boundary unless either an FCC-recognized service area is used (e.g., MEA or EA) or county lines are followed. The geographical coordinates must be specified in degrees, minutes, and seconds to the nearest second latitude and longitude, and must be based upon the 1983 North American Datum (NAD83). In the case where FCC-recognized service areas or county lines are used, applicants need only list the specific area(s) through use of FCC designations or county names that constitute the partitioned area.

(c) Disaggregation. Spectrum may be disaggregated in any amount.

(d) Combined partitioning and disaggregation. Licensees may apply for partial assignment of authorizations that propose combinations of partitioning and disaggregation.

(e) 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 § 1.955 of this chapter.

(f) Coverage requirements for partitioning.

(1) Parties to a partitioning agreement must satisfy at least one of the following requirements:

(i) The partitionee must satisfy the applicable coverage requirements set forth in § 24.103 for the partitioned license area; or

(ii) The original licensee must meet the coverage requirements set forth in § 24.103 for the entire geographic area. In this case, the partitionee must meet only the requirements for renewal of its authorization for the partitioned license area.

(2) Parties seeking authority to partition must submit with their partial assignment application a certification signed by both parties stating which of the above options they select.

(3) Partitionees must submit supporting documents showing compliance with their coverage requirements as set forth in § 24.103.

(4) Failure by any partitionee to meet its coverage requirements will result in automatic cancellation of the partitioned authorization without further Commission action.

(g) Coverage requirements for disaggregation.

(1) Parties to a disaggregation agreement must satisfy at least one of the following requirements:

(i) Either the disaggregator or disaggregatee must satisfy the coverage requirements set forth in § 24.103 for the entire license area; or

(ii) Parties must agree to share responsibility for meeting the coverage requirements set forth in § 24.103 for the entire license area.

(2) Parties seeking authority to disaggregate must submit with their partial assignment application a certification signed by both parties stating which of the above requirements they select.

(3) Disaggregates must submit supporting documents showing compliance with their coverage requirements as set forth in § 24.103.

(4) Parties that accept responsibility for meeting the coverage requirements and later fail to do so will be subject to automatic license cancellation without further Commission action.

6. Section 24.129 is amended by revising the introductory text and paragraph (c), removing paragraph (d), and removing the “*” whenever it appears to read as follows:

24.129 Frequencies.

The following frequencies are available for narrowband PCS.

* * * * *

(c) Nine frequencies are available for assignment on an MTA basis as follows:

(1) Two 50 kHz channels paired with 50 kHz channels:
Channel 18: 940.35-940.40 and 901.35-901.40 MHz; and,
Channel 19: 940.40-940.45 and 901.40-901.45 MHz.

(2) Five 50 kHz channels paired with 12.5 kHz channels:
Channel 20: 930.75-930.80 and 901.8375-901.8500 MHz;
Channel 21: 930.80-930.85 and 901.8500-901.8625 MHz;
Channel 22: 930.85-930.90 and 901.8625-901.8750 MHz;
Channel 25: 930.90-930.95 and 901.8750-901.8875 MHz; and,
Channel 26: 930.95-931.00 and 901.8875-901.9000 MHz.

(3) Two 50 kHz unpaired channels:
Channel 23: 940.90-940.95 MHz; and
Channel 24: 940.95-941.00 MHz.

* * * * *

7. Section 24.130 is revised to read as follows:

§ 24.130 Paging response channels.

The following eight 12.5 kHz unpaired channels are available for assignment on an MTA basis and shall be used only to provide mobile-to-base station communications:

A: 901.9000-901.9125 MHz;

B: 901.9125-901.9250 MHz;
C: 901.9250-901.9375 MHz;
D: 901.9375-901.9500 MHz;
E: 901.9500-901.9625 MHz;
F: 901.9625-901.9750 MHz;
G: 901.9750-901.9875 MHz; and
H: 901.9875-902.0000 MHz.

8. Section 24.132 is amended by revising paragraph (e) to read as follows:

§ 24.132 Power and antenna height limits.

* * * * *

(e) MTA and regional base stations located less than 80 kilometers (50 miles) from the licensed service area border must limit their effective radiated power in accordance with the following formula:

$$PW = 0.0175 \times dkm^* \times 6.6666 \times hm^* \times -3.1997$$

PW is effective radiated power in watts

dkm is distance in kilometers

hm is antenna HAAT in meters; see § 24.53 for HAAT calculation method

* * * * *

§§ 24.302 through 24.309 [Removed and Reserved]

9. Remove and reserve sections 24.302, 24.303, 24.304, 24.305, 24.306, 24.307, 24.308, and 24.309.

§ 24.320 [Removed and Reserved]

10. Section 24.320 is removed and reserved.

11. A new section 24.321 is added to read as follows:

§ 24.321 Designated entities.

(a) Eligibility for small business provisions.

(1) A small business is an entity that, together with its controlling interests and affiliates, has average gross revenues not exceeding \$40 million for the preceding three years.

(2) A very small business is an entity that, together with its controlling interests and affiliates, has average gross revenues not exceeding \$15 million for the preceding three years.

(3) For purposes of determining whether an entity meets either of the definitions set forth in paragraphs (a)(1) and (a)(2) of this section, the gross revenues of the entity, its controlling interests and affiliates shall be considered on a cumulative basis and aggregated. An applicant

seeking status as a small business or very small business under this section must disclose on its short- and long-form applications, separately and in the aggregate, the gross revenues of the applicant (or licensee), its controlling interests and affiliates for each of the previous three years.

(4) Persons or entities that hold interests in an applicant (or licensee) that are affiliates of each other or have an identity of interests identified in § 1.2110(b)(4)(iii) of this chapter will be treated as though they were one person or entity and their ownership interests aggregated for purposes of determining an applicant's (or licensee's) compliance with the requirements of this section.

(5) Where an applicant (or licensee) cannot identify controlling interests under the standards set forth in this section, the gross revenues of all interest holders in the applicant, and their affiliates, will be attributable.

(6) 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 (a)(1) of this section (or each of which individually satisfies the definition in paragraph (a)(2) of this section). Where an applicant or licensee is a consortium of small businesses (or very small businesses), the gross revenues of each small business (or very small business) shall not be aggregated.

(7) Designated entities must describe on their long-form applications how they satisfy the requirements for eligibility for designated entity status, and must list and summarize on their long-form applications all agreements that affect designated entity status such as partnership agreements, shareholder agreements, management agreements and other agreements, including oral agreements, establishing, as applicable, *de facto* or *de jure* control of the entity. Such information must be maintained at the licensee's facilities or by its designated agent for the term of the license in order to enable the Commission to audit designated entity eligibility on an ongoing basis.

(b) Controlling interest.

(1) For purposes of this section, a controlling interest includes individuals or entities with either *de jure* or *de facto* control of the applicant. *De jure* control is evidenced by holdings of greater than 50 percent of the voting stock of a corporation, or in the case of a partnership, general partnership interests. *De facto* control is determined on a case-by-case basis. An entity must disclose its equity interest and demonstrate at least the following indicia of control to establish that it retains *de facto* control of the applicant:

(i) The entity constitutes or appoints more than 50 percent of the board of directors or management committee;

(ii) The entity has authority to appoint, promote, demote, and fire senior executives that control the day-to-day activities of the licensee; and

(iii) The entity plays an integral role in management decisions.

- (2) The following rules apply for the calculation of certain interests.
- (i) Ownership interests shall be calculated on a fully diluted basis; all agreements such as warrants, stock options, and convertible debentures will generally be treated as if the rights thereunder already have been fully exercised.
 - (ii) Partnership and other ownership interests and any stock interest equity, or outstanding stock, or outstanding voting stock shall be attributed as specified below.
 - (iii) Stock interests held in trust shall be attributed to 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. If the trustee has a familial, personal, or extra-trust business relationship to the grantor or the beneficiary, the stock interests held in trust will be attributed to the grantor or beneficiary, as appropriate.
 - (iv) Non-voting stock shall be attributed as an interest in the issuing entity.
 - (v) Limited partnership interests shall be attributed to limited partners and shall be calculated according to both the percentage of equity paid in and the percentage of distribution of profits and losses.
 - (vi) Officers and directors of an entity shall be considered to have a controlling interest in the entity. The officers and directors of an entity that controls a licensee or applicant shall be considered to have a controlling interest in the licensee or applicant.
 - (vii) Ownership interests that are held indirectly by any party through one or more intervening corporations will be determined by successive multiplication of the ownership percentages for each link in the vertical ownership chain and application of the relevant attribution benchmark to the resulting product, except that if the ownership percentage for an interest in any link in the chain exceeds 50 percent or represents actual control, it shall be treated as if it were a 100 percent interest.
 - (viii) Any person who manages the operations of an applicant or licensee pursuant to a management agreement shall be considered to have a controlling interest in such applicant or licensee if such person, or its affiliate, has authority to make decisions or otherwise engage in practices or activities that determine, or significantly influence:
 - (A) The nature or types of services offered by such an applicant or licensee;
 - (B) The terms upon which such services are offered; or
 - (C) The prices charged for such services.
 - (ix) Any licensee or its affiliate who enters into a joint marketing arrangement with an applicant or licensee, or its affiliate, shall be considered to have a controlling interest, if such applicant or

licensee, or its affiliate, has authority to make decisions or otherwise engage in practices or activities that determine, or significantly influence:

- (A) The nature or types of services offered by such an applicant or licensee;
- (B) The terms upon which such services are offered; or
- (C) The prices charged for such services.

(c) Bidding credits.

(1) After [effective date of rules], a winning bidder that qualifies as a small business or a consortium of small businesses as defined in this section may use the bidding credit specified in § 1.2110(e)(2)(iii) of this chapter. A winning bidder that qualifies as a very small business or a consortium of very small businesses as defined in this section may use the bidding credit specified in § 1.2110(e)(2)(ii) of this chapter.

(2)(i) Businesses owned by members of minority groups and women, including small businesses owned by members of minority groups and women, that are winning bidders on nationwide licenses on Channel 5, Channel 8, and Channel 11 prior to [effective date of rules] will be eligible for a twenty-five (25) percent bidding credit.

(ii) Businesses owned by members of minority groups and women, including small businesses owned by members of minority groups and women, that are winning bidders on regional licenses on Channel 13 and Channel 17 prior to [effective date of rules] will be eligible for a forty (40) percent bidding credit.

(d) Installment payments. Small businesses, including small businesses owned by members of minority groups and women, that are winning bidders on any regional license prior to [effective date of rules] will be eligible to pay the full amount of their winning bids in installments over the term of the license pursuant to the terms set forth in § 1.2110(f) of this chapter.

12. Section 24.404 is amended by revising paragraph (a)(1) to read as follows:

§ 24.404 Eligibility.

(a) * * *

(1) The applicant is qualified under the applicable laws and the regulations, policies and decisions issued under the laws, including § 24.12;

* * * * *

13. Section 24.430 is amended by redesignating paragraph (a)(5) as paragraph (a)(4) and adding at the end of paragraph (a)(3) the word “and.”

APPENDIX C

FINAL REGULATORY FLEXIBILITY ANALYSIS

(Second Report and Order)

As required by the Regulatory Flexibility Act (RFA),²²⁹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in Appendix D of the *Report and Order and Further Notice of Proposed Rulemaking* in this proceeding.²³⁰ The Commission sought written public comment on the proposals in the *Further Notice of Proposed Rulemaking*, including comment on the IRFA. As described below, no commenter raised an issue concerning the IRFA. The Commission's Final Regulatory Flexibility Analysis (FRFA) in this Second Report and Order conforms to the RFA.²³¹

I. Need for and Purpose of this Action:

This Second Report and Order amends the Commission's rules for narrowband PCS. The amendments adopted promote efficient licensing of narrowband PCS and enhance the service's competitive potential in the Commercial Mobile Radio Service marketplace. The Second Report and Order also makes the competitive bidding rules for narrowband PCS, which previously provided preferences for minority- and women-owned businesses, race- and gender-neutral. The Commission deems the latter changes necessary in light of the Supreme Court's decisions in *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200 (1995) (requiring a strict scrutiny standard of review for Congressionally mandated race-conscious measures) and *United States v. Virginia*, 518 U.S. 515 (1996) (applying an intermediate scrutiny standard of review to a state program containing gender classification). By applying the Commission's standardized Part 1 competitive bidding rules to narrowband PCS and eliminating most of the service-specific competitive bidding rules previously applied, the Second Report and Order also simplifies and reduces the regulatory burden on applicants and licensees.

II. Summary of Issues Raised by the Public in Response to the IRFA:

No party filed comments responding to the IRFA. The Commission has, however, taken small business concerns into account in the Second Report and Order, as discussed in Sections V and VI of this FRFA.

²²⁹ 5 U.S.C. § 603. Congress amended the RFA, *id* § 601 *et seq.*, by the Contract with America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996.

²³⁰ Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS, GEN Docket No. 90-314, ET Docket No. 92-100, Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, Narrowband PCS, PP Docket No. 93-253, *Report and Order and Further Notice of Proposed Rulemaking*, 12 FCC Rcd 12972 (1997) (*Narrowband PCS R&O/Further Notice*).

²³¹ *See* 5 U.S.C. § 604.

III. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply:

The rules adopted in the Second Report and Order will affect small businesses that hold or seek to acquire narrowband PCS licenses. These entities include small businesses that obtain nationwide, regional or MTA geographic area licenses through auction, assignment, or transfer and small businesses that acquire partitioned and/or disaggregated MTA, regional, or nationwide geographic area licenses.

To date, two auctions of narrowband PCS licenses have been conducted. Through these auctions, the Commission has awarded a total of 41 licenses, out of which 11 were obtained by small businesses. For purposes of the two auctions that have already been held, small businesses were defined as entities with average gross revenues for the prior three calendar years of \$40 million or less. To ensure meaningful participation of small business entities in the auctions, the Commission adopts a two-tiered definition of small businesses in the Second Report and Order. A small business is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million. A very small business is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million. In December 1998, the Small Business Administration approved this two-tiered definition, which had been proposed in the *Narrowband PCS R&O/Further Notice*.²³²

In the future, the Commission will auction 459 licenses to serve MTAs and 408 response channel licenses. There is also one megahertz of narrowband PCS spectrum that has been held in reserve and that the Commission has not yet decided to release for licensing. The Commission cannot predict accurately the number of licenses that will be awarded to small entities in future auctions. However, 4 of the 16 winning bidders in the two previous narrowband PCS auctions were small businesses, as that term was defined under the Commission's rules. The Commission assumes, for purposes of the evaluations and conclusions in this FRFA, that a large portion of the remaining narrowband PCS licenses will be awarded to small entities. The Commission also assumes that at least some small businesses will acquire narrowband PCS licenses by means of the Commission's partitioning and disaggregation rules.

²³² Letter of Dec. 2, 1998, to Amy J. Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, from Aida Alvarez, Administrator, Small Business Administration. Without this definition, the Commission would utilize the SBA definition applicable to radiotelephone companies, *i.e.*, an entity employing fewer than 1,500 persons. 13 C.F.R. § 121.201, Standard Industrial Classification Code 4812. Nearly all radiotelephone companies have fewer than 1,000 employees. The 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of the Census, shows that only 12 radiotelephone firms out of a total of 1,178 such firms that operated during 1992 had 1,000 or more employees. U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, Subject Series, Establishment and Firm Size, Table 5, Employment Size of Firms: 1992, SIC Code 4812 (issued May 1995).

IV. Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements:

The rules adopted in the Second Report and Order impose reporting and recordkeeping requirements on small businesses, as well as others, seeking to obtain or transfer licenses through partitioning and disaggregation. The information requirements will be used to determine whether the proposed partitionee or disaggregatee is an entity qualified to obtain a partitioned license or disaggregated spectrum. The information will be a one-time filing by an applicant requesting such a license. The information can be submitted on FCC Form 603 for Part 24 narrowband PCS services. The Commission estimates that the average burden on the applicant is three hours for the information necessary to complete these forms. The Commission estimates that 75 percent of the respondents, which may include small businesses, will contract out the burden of responding. The Commission estimates that it will take approximately 30 minutes to coordinate information with those contractors. The remaining 25 percent of respondents, which may include small businesses, are estimated to employ in-house staff to provide the information. Applicants filing electronically, including small businesses, will not incur any per minute on-line charge. The Commission estimates that applicants contracting out the information would use an attorney or engineer (average of \$200 per hour) to prepare the information.

Narrowband PCS applicants and licensees, including small businesses, will be subject to the reporting and recordkeeping requirements already contained in the Commission's Part 1 competitive bidding rules, which apply to all auctionable services. These Part 1 rules include the unjust enrichment rule set forth at 47 C.F.R. § 1.2111, which includes a reporting requirement for applicants seeking approval of a transfer of control or assignment of license within three years of receiving a new license through competitive bidding. The Part 1 rules also include the uniform ownership disclosure requirements of 47 C.F.R. § 1.2112, which require all auction applicants to disclose the real party or parties in interest by including as an exhibit to their short-form applications detailed ownership information. The Commission finds that these rules, combined with its controlling interest standard and definition of "affiliate," will help to ensure that only qualifying applicants obtain the benefits of its small business provisions, without being unduly burdensome. In addition, narrowband PCS licensees that qualify as designated entities will be required to maintain at their facilities or by a designated agent, for the term of the license, information relevant to their eligibility for designated entity status. This requirement will further help to ensure that only qualifying applicants obtain the benefits of the Commission's small business provisions.

V. Steps Taken to Minimize Burdens on Small Entities:

The rules adopted in the Second Report and Order are designed to implement Congress' goal of giving small businesses, as well as other entities, the opportunity to participate in the provision of spectrum-based services. The rules are also consistent with the Communications Act's mandate to identify and eliminate market entry barriers for entrepreneurs and small businesses in the provision and ownership of telecommunications services. *See generally* 47 U.S.C. §§ 257, 309(j).

Service Areas. The Commission finds that MTAs, rather than nationwide and regional geographic areas, are the most appropriate geographic area for licensing the remaining

narrowband PCS spectrum because they will serve the needs of a wide range of entities, including both large and small service providers. Certain commenters argued that any additional nationwide or regional licenses would be too costly for small businesses to acquire and build out. MTAs, however, are not too large to preclude the entry of small businesses, and those interested in service areas larger than MTAs will be able to create such areas by aggregating licenses.

Bidding Credits. As noted above, to ensure meaningful participation of small business entities in the auctions, the Commission adopts a two-tiered definition of small businesses in the Second Report and Order. A small business is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million. A very small business is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million. Small businesses are eligible for a 15 percent bidding credit. Very small businesses are eligible for a 25 percent bidding credit. In contrast to the Commission's previous rules, bidding credits will now be applicable to narrowband PCS licenses on all channels.

Partitioning and Disaggregation. The Second Report and Order adopts rules permitting narrowband PCS licensees to partition portions of their geographic areas, or disaggregate portions of the spectrum for which they hold a license, to other entities qualified to be licensees. Such partitioning and disaggregation will facilitate market entry by parties that may lack the financial resources to participate in auctions, including small businesses. Partitioning and disaggregation are expected to enable small businesses to obtain licenses for areas smaller than nationwide, regional or MTA areas, or smaller amounts of spectrum, at costs they will be able to afford. The Commission's decision to allow parties to partitioning or disaggregation agreements to choose between two options to meet their coverage requirements will provide small businesses with more flexibility in managing their resources.

Substantial Service Option. The Second Report and Order allows narrowband PCS licensees to demonstrate "substantial service" as an alternative to meeting the coverage requirements set forth in the existing rules. The Commission finds that a substantial service option may be very useful in allowing licensees, including small businesses, to use spectrum flexibly to provide new and innovative services uninhibited by a requirement that they meet a specific coverage benchmark or lose their license.

Application of Part 1 Standardized Rules. The Commission believes that its application of the Part 1 standardized rules regarding eligible entities, unjust enrichment, and bidding credits will assist small businesses because the resulting predictability will facilitate the business planning and capital fundraising process.

VI. Significant Alternatives Considered:

The Commission considered and rejected the following alternative proposals concerning service areas, spectrum aggregation, response channels, coverage requirements, nationwide paging licensees, competitive bidding rules, installment payments, and disaggregation.

Service Areas. The Commission declined to adopt Metrocall's, Celpage's and Benbow's

recommendation that it use a combination of regional and MTA service areas for future licensing of narrowband PCS. Similarly, the Commission declined to adopt Arch's proposal that it allocate one of the two remaining 50 kHz paired channels as a nationwide license. Taking into consideration other commenters' argument that it would be too costly for small businesses to acquire and build out nationwide and regional licenses, the Commission decided to use MTAs for future licensing. The Commission also declined to adopt several commenters' recommendation that it use BTA-based licenses to license narrowband PCS spectrum. The Commission concluded that using MTAs rather than BTAs would not compromise the goal of ensuring entry for small businesses.

Spectrum Aggregation. In the Second Report and Order, the Commission considered the argument that it should maintain the narrowband PCS spectrum aggregation limit, which was originally adopted to ensure that narrowband PCS services would be offered on a competitive basis. The Commission decided to eliminate the narrowband PCS aggregation limit, finding that the aggregation limit is not needed to prevent an undue concentration of licenses and that it may be harmful if it disadvantages narrowband PCS licensees in competing against other services.

Response Channels. In the Second Report and Order, the Commission considered and rejected its tentative conclusion that the response channels should not be restricted to mobile-to-base transmissions, provided that licensees comply with the relevant rules regarding maximum transmitter power and interference. The Commission agreed with commenters Arch, Benbow, and PCIA that allowing these channels to be used for other purposes would cause harmful interference with current narrowband PCS licensees and determined that it would retain the current rule restricting use of the response channels to mobile-to-base transmissions.

Construction and Coverage Requirements. The Commission declined to adopt recommendations by certain commenters that it modify its current construction benchmarks. It declined, for example, to adopt Arch's and Benbow's suggestion that it eliminate the five-year construction requirement and allow both existing and new narrowband PCS licensees to meet a 37.5 percent population benchmark by the tenth year of their license terms. The Commission found that its five- and ten-year construction benchmarks provide sufficient time for narrowband PCS licensees to construct their systems. The nationwide narrowband PCS licensees that have reached their five-year buildout benchmarks have all represented that they met the requirement, and none requested a waiver. The Commission found that there is no need to alter the current benchmarks, and that it is best to address any problems that individual licensees may have because of difficulties with financing or equipment availability by evaluating requests for waiver on a case-by-case basis.

Several commenters opposed the adoption of a "substantial service" requirement on the grounds that replacing the existing coverage requirements with a substantial service test would encourage speculation, fraud, and anticompetitive behavior. In considering and rejecting this argument, the Commission concluded that coverage requirements, including a substantial service standard, encourage the provision of service to areas that would not necessarily receive service expeditiously solely through the operation of market forces. The Commission found that the substantial service option may be very useful in allowing licensees to use spectrum flexibly to provide new and innovative services uninhibited by a requirement that they meet a specific

coverage benchmark or lose their license. The Commission also concluded that permitting licensees to make a substantial service showing may encourage them to build out in rural areas. The Commission also declined to adopt Ameritech's recommendation that substantial service be defined as "service that is sound, favorable, and reasonably capable of meeting an appropriate portion of the public demand for one or more of the communications services of which the system is capable under the Commission's rules." In the past the Commission has offered guidance to licensees in other services with regard to factors that it would consider in evaluating whether the substantial service requirement has been met, and it will maintain this practice with respect to narrowband PCS.

Nationwide Paging Licenses. In the *Paging MO&O/Third Report and Order*, the Commission considered the issue of coverage requirements for nationwide geographic area paging licensees and deferred any decision on the issue until it resolved similar matters in the instant narrowband PCS rulemaking proceeding.²³³ In the Second Report and Order, the Commission found that all nationwide paging licensees are already providing sufficient coverage to meet the five-year benchmark applicable to nationwide narrowband PCS licensees, and some of them have met the ten-year benchmark. Thus, the Commission concluded that the build-out requirements imposed on nationwide paging licensees under its previous rules were adequate to promote coverage equivalent to that of nationwide narrowband PCS licensees, and therefore it is not necessary to adopt coverage requirements for nationwide paging licensees that would be in addition to the build-out requirements they have already met.

Competitive Bidding Rules. The Commission declined to adopt certain commenters' recommendation that it require applicants to identify each frequency in each market on which they wish to bid and submit upfront payments for each individual license. The Commission found that its current rules, which require an upfront payment to cover only those licenses on which an applicant intends to bid in any one round, are appropriate because they allow bidders the flexibility to pursue backup strategies during the course of an auction in the event they are unable to obtain their first choice of licenses. The Commission also declined to modify its anti-collusion rule to provide a safe harbor for carriers engaged in negotiations regarding mergers or intercarrier agreements, as requested by PCIA. The Commission has declined to create such a safe harbor in the past, and it has not been presented with an adequate justification for departing from that decision here. Finally, several commenters requested that the Commission provide auction participants with the identity of all competing bidders. It has generally been the Commission's practice to disclose the identity of all bidders in Commission auctions. If, in the case of particular auctions, a limit on such information appears warranted, the Wireless Telecommunications Bureau will, consistent with the Balanced Budget Act of 1997 and current practice, seek comment on the issue in a public notice prior to the auction.

Installment Payments. The Commission declined to adopt installment payment plans for small businesses participating in narrowband PCS auctions. This action is consistent with the

²³³ See Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, WT Docket No. 96-18, Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Memorandum Opinion and Order on Reconsideration and Third Report and Order*, 14 FCC Rcd 10030, 10072, ¶ 69 (1999) (*Paging MO&O/Third Report and Order*).

Commission's policy set forth in the *Part 1 Third Report and Order*,²³⁴ where the Commission noted that its experience has demonstrated that installment payments may not be necessary to ensure a meaningful opportunity for small businesses to participate successfully in its auction program.

Bidding Credits. The Commission decided to adopt a 15 percent bidding credit for small businesses and a 25 percent bidding credit for very small businesses. A small business is an entity with average annual gross revenues not to exceed \$40 million for the preceding three years, and a very small business is an entity with average annual gross revenues not to exceed \$15 million for the preceding three years. The Commission declined to adopt higher bidding credits, as Merlin and RTG recommend. The bidding credits adopted are those provided for in the Commission's Part 1 standardized competitive bidding rules. The Commission believes that these levels of bidding credits, which are higher than those proposed in the *Narrowband PCS R&O/Further Notice*, are sufficient to promote the participation of small businesses in the provision of narrowband PCS, and that there is no reason to deviate from the standard schedule of bidding credits here.

Bidding Credits for Rural Telephone Companies. The Commission declined to adopt RTG's and NTCA's recommendation that it provide special bidding credits for rural telephone companies in order to meet its obligation to ensure that rural telephone companies have the opportunity to participate in spectrum-based services. The Commission has no evidence that large rural telephone companies encounter barriers to capital formation comparable to those faced by other designated entities. In addition, the vast majority of rural telephone companies that have participated in the Commission's auctions to date have identified themselves as small businesses and have qualified for bidding credits on that basis. Thus, the Commission believes that small business bidding credits are sufficient to ensure that rural telephone companies have the ability to participate in spectrum-based services, and it does not believe that rural telephone companies will be unable to compete in narrowband PCS auctions or the messaging marketplace without special financial preferences.

Attribution. The Commission declined to adopt Merlin's recommendations regarding amending its rules to adapt to various business structures. Merlin suggests, for example, that, for purposes of defining whether a company is widely held, whatever its form of business organization, the Commission should formulate its rules to state that a widely held company is one in which no single equity holder has 15 percent or more of the equity of the applicant. The Commission found that the controlling interest standard adopted today, along with the definition of "affiliate" set forth in Part 1 of the Commission's rules, adequately addresses Merlin's concerns.

Disaggregation. Some commenters stated that disaggregation is not technically feasible and

²³⁴ See Amendment of Part 1 of the Commissions Rules -- Competitive Bidding Procedures, WT Docket No. 97-82, Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, 4660-4685 MHz, ET Docket No. 94-32, *Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374 (1997) (modified by Erratum, DA 98-419 (rel. March 2, 1998)) (*Part 1 Third Report and Order*).

therefore it is unnecessary for the Commission to address the issue at this time. In considering and rejecting such arguments, the Commission concluded that marketplace forces should determine whether it is technically feasible to disaggregate narrowband spectrum. The Commission also concluded that allowing narrowband PCS spectrum disaggregation could potentially expedite the introduction of service to underserved areas and provide increased flexibility to licensees. Finally, the Commission found that disaggregation combined with bidding credits and geographic partitioning will facilitate the acquisition of narrowband PCS spectrum by small businesses.

Report to Congress: The Commission will send a copy of the Second Report and Order, including this FRFA, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996. *See* 5 U.S.C. § 801(a)(1)(A). In addition, the Commission will send a copy of the Second Report and Order, including FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the Second Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register. *See* 5 U.S.C. § 604(b).

APPENDIX D**INITIAL REGULATORY FLEXIBILITY ANALYSIS***Second Further Notice of Proposed Rule Making*

As required by the Regulatory Flexibility Act (RFA),²³⁵ the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this Second Further Notice of Proposed Rule Making (Second FNPRM). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Second FNPRM provided above in paragraph 87. The Commission will send a copy of the Second FNPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration. *See* 5 U.S.C. § 603(a). In addition, the Second FNPRM and IRFA (or summaries thereof) will be published in the Federal Register. *See id.*

I. Need for and Objectives of this Action:

This Second FNPRM is being initiated to secure comment on the Commission's tentative conclusion that the one megahertz of narrowband PCS reserve spectrum should be licensed. The Commission believes that this spectrum, which is unencumbered, should be made available to those interested in bringing new and innovative services to the public, and that the Commission should work to avoid any shortage of spectrum that might limit service options. The Second FNPRM also seeks comment on how the reserve spectrum should be channelized. The Commission believes that creating channel blocks that are larger than those currently in existence may be useful to those seeking to provide innovative services. Finally, the Second FNPRM seeks comment on whether rechannelizing the unlicensed spectrum that has already been channelized, to create licenses authorizing the use of larger blocks of spectrum, would facilitate the development of innovative services or otherwise assist narrowband PCS licensees in competing against other wireless sectors.

II. Legal Basis:

This action is authorized under Sections 4(i), 303(r), and 309(j) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and 309(j).

III. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply:

The Final Regulatory Flexibility Analysis (FRFA) set forth in Appendix C describes in detail the small entities that the Commission expects will be affected by the rules adopted in the

²³⁵ *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

Second Report and Order. These same entities would be affected by the rules proposed in the Second FNPRM. The number and description of such entities contained in Section III of the FRFA are hereby incorporated in this IRFA.

IV. Reporting, Recordkeeping, and Other Compliance Requirements:

The Commission does not anticipate any additional reporting, recordkeeping, or other compliance requirements as a result of this Second FNPRM.

V. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered:

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

In the Second FNPRM the Commission seeks comment on whether the narrowband PCS reserve spectrum should be licensed. The Commission believes that licensing this spectrum would make it easier for innovators to acquire spectrum and develop services, and that this goal is consistent with promoting opportunities for small businesses. The Commission also seeks comment on whether rechannelizing the unlicensed spectrum that has already been channelized would assist narrowband PCS licensees in competing against other services.

VI. Federal Rules That Overlap, Duplicate, or Conflict With These Rules:

None.