ensuring that the licensee's use of the spectrum does not negatively impact other 220 MHz operations.

105. Finally, we note that SMR contends that Section 309(j)(6)(D) of the Communications Act[194] prohibits the Commission from permitting Phase II licensees to modify their systems unless Phase I licensees are given the same right.[195] SMR asserts that we are therefore compelled to permit Phase I licensees full flexibility to modify their licenses so long as they remain within their contour.[196]

106. Because we have decided to permit Phase I licensees to modify their authorizations it is unnecessary for us to reach a decision on the merits of this issue in the present proceeding.

8. Substantial Service

107. To promote operational flexibility for 220 MHz licensees, and because the Commission recognizes that certain 220 MHz service offerings, such as fixed, point-to-point operations, might not lend themselves to compliance with a construction requirement based on the traditional design of private land mobile radio systems (*i.e.*, the construction and operation of single, high-powered base stations providing signal coverage over an extended area), the *220 MHz Third Report and Order* provides Phase II nationwide 220 MHz licensees with the alternative of meeting their construction requirements by demonstrating the provision of appropriate levels of substantial service to the public at the prescribed 5-year and 10-year construction benchmarks.[197] The option of meeting the substantial service requirement is also available to EA and Regional licensees.[198] The Commission decided not to adopt a particular measure of substantial service for such licensees, but rather to consider such showings on a case-by-case basis.[199] In the Commission's rules, substantial service is defined as service that

[194] 47 U.S.C. § 309(j)(6)(D).

[195] SMR Third Order Petition at 9-10.

[196] *Id.*

[197] *220 MHz Third Report and Order*, 12 FCC Rcd at 11016-19 (paras. 156, 158-159), 11082-83 (paras. 328-331), 11086-87 (para. 341).

[198] *Id.* at 11020-21 (para. 163).

[199] *Id.* at 11017-18, 11020-21 (paras. 158, 163).

is sound, favorable, and substantially above a level of mediocre service that just might minimally warrant renewal.[200]

108. Metricom requests that the Commission specify the criteria that will be used to determine whether licensees have provided substantial service, and reminds the Commission that licensees would risk the loss of their licenses if their understanding of the definition of substantial service differs from that of the Commission.[201] Metricom argues that the imprecision of the substantial service requirement makes it difficult for licensees to determine whether they meet the substantial service requirement, and that elementary fairness requires clarity in such an important a matter.[202] Comtech calls the substantial service requirement "vague," and joins Metricom in seeking clarification.[203]

109. We disagree with the view of the substantial service requirement advanced by Comtech and Metricom that more precision is necessary in the definition. The Commission has found the substantial service standard useful in several contexts, including paging,[204] Personal Communications Services,[205] General Wireless Communications Service,[206] Wireless Communications Service,[207] and Local Multipoint Distribution Service.[208] In the case of Private Land Mobile Radio Service, the Commission has used the substantial service standard

[200] The term "substantial service" is defined in Section 90.743(a) and Section 22.940(a)(1)(i) of the Commission's Rules, 47 C.F.R. §§ 90.743(a), 22.940(a)(1)(i). *See also 220 MHz Third Report and Order*, 12 FCC Rcd at 11044 (para. 215) ("We continue to believe it is appropriate for all Phase I and Phase II 220 MHz Service licensees seeking renewal of their authorization to meet the requirements for license renewal similar to those provided in Section 22.940 of our rules.").

[201] Metricom Third Order Comments at 5.

[202] *Id.* at 5-6.

[203] Comtech Third Order Reply at 10.

[204] *See* Section 22.940(a)(1)(i) of the Commission's Rules, 47 C.F.R. § 22.940(a)(1)(i).

[205] *See* Section 24.16(a) of the Commission's Rules, 47 C.F.R. § 24.16(a).

[206] *See* Section 26.14(a) of the Commission's Rules, 47 C.F.R. § 26.14(a).

[207] *See* Section 27.14(b)(1) of the Commission's Rules, 47 C.F.R. § 27.14(b)(1).

[208] *See* Section 101.1011(a) of the Commission's Rules, 47 C.F.R. § 101.1011(a).

in regulations governing the 800 MHz and 900 MHz SMR bands[209] as well as the 220 MHz band.[210]

110. We refer parties who seek clarification of the standard beyond the definition in the Commission's rules to the Commission's stated purpose in applying the standard to 220 MHz service (recognizing the needs of licensees with service offerings such as fixed, point-to-point operations),[211] and to previous examples the Commission has given of substantial service.[212] Any further elaboration of the standard at this time would, we believe, only limit its flexibility and usefulness to licensees and their customers.

9. Spectrum Efficiency Standard

111. In the *220 MHz Third Report and Order*, the Commission concluded that Phase I and Phase II licensees who combine contiguous 5 kHz channels in order to operate on channels wider than 5 kHz would be required to meet the following spectrum efficiency standard: for voice communications, a licensee is required to employ equipment that provides at least one voice channel per 5 kHz of channel bandwidth; for data communications, a licensee is required to employ equipment that operates at a data rate of at least 4,800 bits per second per 5 kHz of channel bandwidth.[213] The standard is implemented through the Commission's equipment type acceptance process.[214]

112. To avoid inadvertently discouraging new, innovative, and efficient technologies, the Commission provided manufacturers with an extra measure of flexibility: type acceptance for equipment not meeting the voice or data efficiency standard could be obtained if (1) the

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[209] *See* Sections 90.665(c) and 90.816(b)(1)(i) of the Commission's Rules, 47 C.F.R. §§ 90.665(c), 90.816(b)(1)(i).

[210] *See* Sections 90.725(h), 90.743(a)(1), 90.767(b), and 90.769(b) of the Commission's Rules, 47 C.F.R. §§ 90.725(h), 90.743(a)(1), 90.767(b), 90.769(b).

[211] *220 MHz Third Report and Order*, 12 FCC Rcd at 11016 (para. 156).

[212] *See* 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, RM-8117, RM-8030, RM-8029, Implementation of Sections 3(n) and 332 of the Communications Act – Regulatory Treatment of Mobile Services, GN Docket No. 93-252, Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, Second Report and Order, 12 FCC Rcd 19079, 19094-95 (para. 34) (1997) (*800 MHz SMR Order*).

[213] *220 MHz Third Report and Order*, 12 FCC Rcd at 10998-99 (para. 116).

[214] *Id.* at 10999 (para. 117).

manufacturer submitted a technical analysis with its application for type acceptance demonstrating that the equipment would provide more spectral efficiency than is required by the spectrum efficiency rule; and (2) this technical analysis was deemed satisfactory by the Commission's Equipment Authorization Division.[215] Licensees would be permitted to employ equipment that failed to meet the spectrum efficiency standard only if such equipment had been thus type accepted.[216]

113. The Commission explained that the efficiency standard furthered one of the Commission's principal goals in establishing the 220-222 MHz service, which was to encourage the development of spectrally efficient technologies.[217] While the Commission did not disagree with the suggestion that the market would supply licensees with the incentive to use their spectrum efficiently, the Commission nevertheless believed that adoption of a mandatory efficiency standard was an appropriate and effective means of ensuring that licensees aggregating contiguous channels would operate efficiently.[218] In response to the claim that the standard could prevent the provision of certain services in the 220-222 MHz band, the Commission emphasized that its purpose was not to prevent the offering of services, but rather to spur, through the adoption of the standard, the development of spectrally-efficient technologies in any number of other wireless communications services that might eventually be provided in the band.[219]

114. The Commission further decided to retain the standard only through December 31, 2001.[220] By allowing the standard to then expire, the Commission intended to balance its goal of stimulating the development of spectrally efficient technology against its desire to grant licensees flexibility and to rely on market forces.[221] The Commission also expressed its confidence that by the time the standard expired, the technology of wireless equipment would

[215] *Id.* at 10999 (para. 118). Upon specific request, the Equipment Authorization Division would advise applicants who desired to develop equipment for this band as to the acceptability of their technical analysis. *Id.* at 10999 (para. 118 n.212).

[216] *Id.* at 10999 (para. 118).

[217] *Id.* at 10998 (para. 113).

[218] *Id.* at 10998 (para. 114).

[219] *Id.* at 10998 (para. 115).

[220] *Id.* at 10999 (para. 119).

[221] *Id.*

have surpassed the requirements of the standard, and that there would no longer be a need to mandate such a standard for the 220-222 MHz band.[222]

115. Comtech petitions the Commission to exempt paging from the 220 MHz efficiency standard.[223] Comtech states that it is unaware of any manufacturer investigating one-way paging transmitters capable of meeting the efficiency standard, and that the necessary research and development to meet the standard would prevent the commercial availability of such equipment before the standard sunsets in 2002.[224] Arch and PCIA concur with Comtech that the efficiency standard is so stringent that it effectively negates the Commission's decision to allow paging in the 220 MHz band.[225] Comtech, in arguing for removal of the spectrum efficiency standard, contends that Comtech itself, rather than the Commission, can best ensure the most intensive use of Comtech's 25 kHz of nationwide spectrum.[226] Arch states that 6,400 bits per second in a 25 kHz channel "pushes the limits of practical radio frequency network design for paging using presently available technology."[227]

116. Glenayre agrees that no equipment now exists that meets the Commission's 220 MHz efficiency standard for data.[228] Predicting that "equipment meeting the standard will only become available at about the time the standard is eliminated," Glenayre cautions that the current lack of acceptable data equipment leaves 220 MHz licensees with three choices: to forego data, and implement voice equipment only; to construct voice equipment to meet

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[222] *Id.* at 10999-11000 (para. 119).

[223] Comtech Third Order Petition at 8. Comtech notes that the Commission exempted paging from the Refarming efficiency standard. *See* Replacement of Part 90 by Part 88 To Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Radio Services, PR Docket No. 92-235, Amendment of the Commission;s Rules Concerning Maritime Communications, PR Docket No. 92-257, Memorandum Opinion and Order, 11 FCC Rcd 17676, 17689 (para. 26) (1996) (*Refarming Reconsideration Order*) (amending Section 90.203(j)(7) of the Commission's Rules, 47 C.F.R. § 90.203(j)(7), to state that paging channels are exempted from the newly-adopted narrowband requirements).

[224] Comtech Third Order Petition at 6-7. Comtech states that one-way paging channels are generally 25 kHz wide and transmit at a maximum data rate of 6,400 bits per second, or .256 bits per second per hertz, a rate well below the efficiency standard's 4,800 bit per second per 5 kHz, or .96 bits per second per hertz. *Id.*

[225] Arch Third Order Comments at 2; PCIA Third Order Reply at 3.

[226] Comtech Third Order Reply at 7.

[227] Arch Third Order Reply at 4.

[228] Glenayre Third Order Petition at 5.

construction deadlines, and construct data equipment separately when data equipment that meets the standard becomes available; or to delay all construction until acceptable data equipment is on the market.[229] Rather than exempting paging operations, as Comtech requests, Glenayre proposes that the Commission resolve the contradiction by introducing an achievable standard now that would become progressively more strict.[230] Specifically, Glenayre advocates the adoption, through the Commission's type acceptance process, of a standard of 0.256 bps/Hz immediately; 1 bps/Hz by December 31, 2001, and 2 bps/Hz by December 31, 2006.[231] Glenayre suggests the standard could be eliminated by December 31, 2011.[232]

117. PERS agrees with Glenayre that strengthening the standard over time, and thus requiring more efficient technologies as they became available, would better serve the public interest.[233] Metricom, however, views Glenayre's proposal as unnecessary and burdensome to licensees, and argues that licensees would have to replace their equipment to keep up with the standard's increasing stringency.[234] In opposing the imposition of any efficiency standard, Metricom argues that the market should dictate the type of equipment to be employed.[235] Arch agrees with Metricom that Glenayre's proposal would artificially require paging operators to upgrade their equipment.[236]

118. Glenayre also petitions the Commission to conform the 220 MHz band spectrum efficiency standard to the 4,800 bits per second per 6.25 kHz channel standard the Commission adopted in the Refarming proceeding.[237] Glenayre argues that this step would

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[229] *Id.* at 5-6.

[230] *Id.* at 6.

[231] *Id.*

[232] *Id.*

[233] PERS Third Order Comments at 2 (unpaginated).

[234] Metricom Third Order Comments at 8.

[235] *Id.*

[236] Arch Third Order Comments at 3.

[237] Glenayre Third Order Petition at 6-7. *See* Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, PR Docket No. 92-235, Report and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 10076, 10122 (para. 97) (1995) (*Refarming Report and Order*).

offer the benefit of allowing the same equipment to be used in both bands.[238] In a slight variation of this proposal, Rush compares the 220 MHz efficiency standard (4,800 bps per 5 kHz channel) to the Refarming efficiency standard (4,800 bps in a 6.25 kHz channel), and requests that the 220 MHz standard be reduced to 3,840 bits per second, which would produce a consistent .768 b/s/Hz rate between the bands.[239] Such an adjustment, according to Rush, could enhance the potential for equipment development in both bands.[240]

119. INTEK, arguing in favor of the spectrum efficiency standard, reminds the Commission that, from its inception, the 220 MHz band has been especially dedicated to fostering spectrally-efficient narrowband technologies, and that prior to the *220 MHz Third Report and Order,* only narrowband equipment operating on 5 kHz channels was permitted in the 220 MHz band.[241] INTEK considers that in the *220 MHz Third Report and Order*, the Commission struck a "careful balancing of equities" which permits the aggregation of contiguous 5 kHz channels, and allows licensees to conduct paging and fixed operations on a primary basis, but also imposes a temporary efficiency standard on licensees using non-narrowband systems on their aggregated channels.[242]

120. This balance, according to INTEK, accommodates the licensees' desire for flexibility, and yet remains true to the narrowband character of the band, and to the equipment manufacturers who responded to the Commission's creation of a unique test-bed for narrowband technologies.[243] INTEK also maintains that Phase I licensees, including Rush and Comtech, applied for licenses in the expectation that they would be restricted to the use of 5 kHz narrowband equipment.[244]

121. INTEK and SEA dispute the argument that paging operations should be made exempt from the efficiency standard because no suitable equipment is available.[245] INTEK

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[238] Glenayre Third Order Petition at 7.

[239] Rush Third Order Petition at 3-4.

[240] *Id.*

[241] INTEK Third Order Comments at 2.

[242] *Id.* at 2-3.

[243] *Id.*

[244] *Id.* at 4.

[245] *Id.* at 4-5; SEA Third Order Comments at 10-11.

points out that, until the *220 MHz Third Report and Order*, paging was restricted in the 220 MHz band.[246] Therefore, INTEK maintains, any claim that manufacturers will be unable to satisfy 220 MHz band licensees' equipment needs cannot be other than premature and speculative, the more so in light of the prodigious increases in data-rate efficiency over the past five years.[247] SEA views Inflexion technology as indicative of this trend, and argues that application of the standard will encourage further development.[248] SEA suggests that parties opposed to applying the standard to paging do not sufficiently appreciate the flexibility provided by Section 90.203(k)(2) of the Commission's Rules, by which the Commission retains the flexibility to type-accept equipment that does not meet the letter of the standard.[249]

122. Comtech maintains that any reliance on Motorola's Inflexion system is misplaced because Inflexion is a two-way technology, and the Commission's rules specifically permit only one-way paging on 220 MHz channels.[250] Moreover, Comtech maintains, Inflexion requires a minimum of 50 kHz of spectrum, which very few 220 MHz licensees will possess.[251] Comtech further states that INTEK's own 220 MHz band data equipment is too large and heavy to be commercially acceptable for paging, and that, in contrast to one-way paging receivers, INTEK's two-way equipment can request re-transmission of information received with errors.[252]

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[246] INTEK Third Order Comments at 4-5.

[247] *Id.* Prior to the *220 MHz Third Report and Order*, 220 MHz licensees were permitted to operate paging systems only on an ancillary basis to their land mobile operations. *220 MHz Third Report and Order*, 12 FCC Rcd at 10951 (para. 7).

[248] SEA Third Order Comments at 10-11. INTEK, while observing that it "does not believe . . . that any blanket statement regarding the plans of manufacturers to introduce paging equipment in the 220 MHz band that meets the spectrum efficiency standard can be made by any party . . . with any degree of certainty," also "notes that . . . at least one paging technology exists today (Inflexion) that, if adapted for use in the 220 MHz band, would appear to meet the data efficiency standard." INTEK Third Order Comments at 5.

[249] SEA Third Order Comments at 11.

[250] Comtech Third Order Petition at 8 n.13. We note that Comtech's claim that only one-way paging is permitted for the 220 MHz service misconstrues the Commission's rules. *See* para. 91, *supra*. We also note that Comtech claims that two-way units are not being developed with a return channel below 800 MHz, because their large size would render them commercially unacceptable. *Id.* at 9.

[251] *Id.* at 8.

[252] Comtech Third Order Reply at 5. Comtech adds that, without a modem, INTEK's data equipment efficiency drops to 1.2 kbps. *Id.*

123. We agree with petitioners who argue that our goal of making the 220 MHz service rules more flexible by permitting paging on a primary basis, and by permitting the aggregation of contiguous channels, is threatened by evidence presented in the record of this reconsideration proceeding that paging equipment is not presently capable of meeting the efficiency standard for the band. This concern, coupled with our view that, since adoption of the *220 MHz Third Report and Order*, circumstances have developed in a manner that suggests that 220 MHz spectrum will be used efficiently by service providers regardless of whether we impose any spectrum efficiency standard,[253] has led us to revise the Commission's rules to eliminate the spectrum efficiency standard for the 220 MHz service.

124. While we are convinced by the showings in the record that carriers seeking to offer one-way paging services would be impaired in their ability to take advantage of the licensing flexibility introduced in the *220 MHz Third Report and Order* because of the requirements of the spectrum efficiency standard, there are two reasons why we are not persuaded by the claim of some petitioners that the best solution to this problem is to exempt paging carriers from the standard.

125. First, these petitioners offer what is, at best, a partial cure for the problem illuminated in the record, which is tailored to address their particular interests but which ignores our overall policy objectives. The Commission indicated in the *220 MHz Third Report and Order* that a spectrum efficiency standard would not prevent the offering of services, but would spur the development of spectrum-efficient technologies.[254] The difficulty with the approach proposed by the petitioners is that, in singling out paging services for special treatment while leaving the standard in place, their solution would have the potential effect of impeding the introduction and deployment of other services demanded by consumers that use available equipment that does not comply with the strictures of the efficiency standard.

126. The Metricom case illustrates the anomalous consequences of pursuing the solution posed by the petitioners. Metricom, a relatively new entrant in the wireless service marketplace,[255] indicates that it is interested in employing 220 MHz frequencies to provide innovative non-voice services to the public.[256] Although Metricom does not petition for removal of the efficiency standard, it *does* observe — in arguing against the Glenayre

[253] *See* paras. 136-137, *infra*.

[254] *220 MHz Third Report and Order*, 12 FCC Rcd at 10998 (para. 115).

[255] Metricom Third Order Comments at 2-3.

[256] *Id.* at 3.

proposal for a "sliding scale" efficiency standard that would be made more lenient now but more stringent in future years[257] — that it "disagrees with the imposition of *any* efficiency standard because Metricom believes that the marketplace should dictate the type of equipment to be employed, and the Commission should not foreclose new technological advances that may, in fact, yield greater efficiencies."[258]

127. We agree with Metricom. We do not believe it is prudent to leave the spectrum efficiency standard in place in the face of evidence that it could impair technological advances while also making it more difficult for carriers to take advantage of licensing flexibility to meet consumer demand. We also conclude that there is not a rational basis for avoiding this problem for carriers choosing to offer one type of service while permitting the problem to stand as a barrier to carriers offering other services.

128. Second, our elimination of the efficiency standard, while avoiding the policy deficiencies that are inherent in an exemption limited to one class of carriers, grants the relief sought by the petitioners. The fact that we have not chosen petitioners' specific solution — for the reasons we have presented — in no way diminishes the fact that the petitioners are aided by our decision.

129. As we discussed above, the Commission neither foresaw nor intended that the efficiency standard would effectively bar the offering of paging or other services on the 220 MHz band.[259] The record before us, however, has convinced us that the spectrum efficiency standard impedes those licensees desiring to take advantage of the flexibility that we intended to establish with the *220 MHz Third Report and Order*. Retaining the efficiency standard could also block near-term entry into the 220 MHz market by equipment manufacturers not currently in this market, as well as the entry of different types of service providers, including small businesses.[260] We also continue to believe that market pressures will encourage efficient use of spectrum, and that technological innovation in the coming years will surpass the efficiency level of the adopted standard. These twin engines of progress seem to us a more reliable and reasonable method of promoting spectrum efficiency in the 220 MHz band than an efficiency standard that will soon expire in any case.

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[257] *See* para. 117, *supra*.

[258] Metricom Third Order Comments at 8 (emphasis added). *See* para. 117, *supra*. We also note that, in earlier stages of this proceeding, Metricom opposed the spectrum efficiency standard and supported our permitting paging to be offered on a primary basis in the 220 MHz band. *See 220 MHz Third Report and Order*, 12 FCC Rcd at 10989-90 (paras. 93-94), 10997-98 (para. 112 n.210, and accompanying text).

[259] *See* para. 113, *supra*.

[260] *See* para. 139, *infra*.

130. In this regard, we believe it is instructive to view the efficiency standard in the historical context of the Commission's development of licensing rules for the 220 MHz service and, in doing so, to illustrate why the standard is not necessary to ensure realization of the goals originally established by the Commission in its design of the licensing parameters for the service. "One of [the Commission's] principal goals in establishing the 220-222 MHz band was to encourage the development of spectrally efficient technologies."[261] In 1991, the Commission chose to pursue this goal, in the *220 MHz Report and Order,* by adopting service rules for the assignment of 200 five kHz channel pairs in the 220-222 MHz band, with mutually exclusive applications assigned through random selection procedures.[262]

131. The Commission's objective was to foster the development of efficient technology through a channelization plan that required equipment capable of utilizing extremely small slices of spectrum. The Commission's decision to promote spectrum efficiency through its channelization plan was, in part, the product of the Commission's awareness that the method of awarding licenses — the random selection process — could not serve as an effective tool for advancing this goal. The Commission, of course, did not at this time have statutory authority to employ competitive bidding as a means of awarding 220 MHz licenses.

132. In the *220 MHz Third Report and Order,* the Commission sought to combine the objectives of spectrum efficiency and flexible licensing by allowing paging to be offered in the 220 MHz band on a primary basis, by permitting the aggregation of contiguous 5 kHz channels in the band, and also by imposing spectrum efficiency standards intended to replicate the efficiencies demanded by 5 kHz operations.[263] However, as the discussion above suggests, we are now convinced that assigning licenses based on competitive bidding creates incentives for the promotion of spectrum efficiency. In view of the incentives for spectrum efficiency produced by competitive bidding, evidence presented in the record and discussed above that

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[261] *See 220 MHz Third Report and Order*, 12 FCC Rcd at 10998 (para. 113).

[262] *220 MHz Report and Order*, 6 FCC Rcd at 2364-65 (paras. 59, 62). *See* para. 5, *supra.*

[263] In taking this step, the Commission observed:

> In adopting this [spectrum efficiency] requirement, we note that we do not disagree with commenters that suggest that licensees acquiring 220 MHz spectrum through competitive bidding will likely have the incentive to use their spectrum efficiently. We believe, however, that our adoption of a mandatory spectrum efficiency standard at this time is an appropriate and effective means of ensuring that licensees aggregating contiguous channels will operate in an efficient manner.

220 MHz Third Report and Order, 12 FCC Rcd at 10998 (para. 114). *See* para. 113, *supra.*.

paging cannot be provided consistent with the efficiency standard, and developments that have occurred since the release of the *220 MHz Third Report and Order*, we now believe it is appropriate to rely on the competitive bidding process and marketplace forces to ensure that 220 MHz spectrum will be employed efficiently, even where contiguous 5 kHz channels are aggregated.

133. Unlike the comparative hearing and random selection processes that were the only means by which the Commission could award licenses at the time it established its licensing framework for the 220 MHz service, the Commission has found the competitive bidding process to be an effective tool for promoting efficient spectrum use. The Commission has determined that the auction process tends:[264]

> to reinforce the desire of licensees to make efficient and intensive use of . . . spectrum. Auctions make explicit what others are willing to pay to use the spectrum, and the licensees' need to recoup the out-of-pocket expenditure for a license should provide additional motivation to get the most value out of the spectrum.

In fact, the Commission has found that "the system of competitive bidding . . . will lead to the issuance of licenses to those parties who value the licenses most highly and who thus can be expected to make efficient and intensive use of the spectrum, as contemplated by Section 309(j)(3)(D) [of the Communications Act]."[265]

134. Moreover, in services where the Commission has used competitive bidding to award licenses, there is evidence that licensees are using spectrally efficient technologies, despite the decision of the Commission not to impose spectrum efficiency standards. Since 1994, for example, the Commission has granted more than 2,000 licenses for new PCS services, which has contributed to the nationwide deployment of new technologies. Although no efficiency standards were imposed by the Commission in connection with the licensing and operation of PCS services, two widely used digital broadband PCS technologies are achieving spectrum efficiencies that surpass analog cellular technology. Both Code Division Multiple Access (CDMA) and Time Division Multiple Access (TDMA) are significantly more efficient than analog cellular.

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[264] Implementation of Section 309(j) of the Communications Act – Competitive Bidding, Second Report and Order, PP Docket No. 93-253, Second Report and Order, 9 FCC Rcd 2348, 2358 (para. 58), *recon.*, Second Memorandum Opinion and Order, 9 FCC Rcd 7245 (1994).

[265] Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, ET Docket No. 94-32, Second Report and Order, 11 FCC Rcd 624, 634-44 (para. 46) (1995).

135. In addition, in services (such as cellular services) that were not subject to auctions but that compete with broadband PCS, many licensees are replacing older, less efficient analog technologies with these digital technologies. For example, AT&T has started to switch its cellular analog services to TDMA digital technology.

136. A further reason for our decision to eliminate the spectrum efficiency standard is the fact that, since our adoption of the *220 MHz Third Report and Order*, circumstances relating to the development and utilization of the band have continued to change in a manner that suggests that 220 MHz spectrum will be used efficiently by service providers, regardless of whether we impose a spectrum efficiency standard. These circumstances have manifested themselves in two respects. First, subscribership growth, which is driving construction of facilities and deployment of equipment in the band, has continued at a pace that leads us to conclude that the efficient utilization of 5 kHz channels in the band is now well-established.[266] To take one example, an INTEK subsidiary operating 220 MHz business radio systems "recorded a major increase in subscribers during the second fiscal quarter ended March 31, 1998."[267] The widespread use of spectrally efficient equipment, which has gained momentum since the adoption of the *220 MHz Third Report and Order*, suggests that the Commission's original objectives in promoting efficient utilization of spectrum in the band have been largely successful.

137. Second, the Commission has acted in a related rulemaking proceeding to spur flexible use of the band in a manner that promotes further growth in the utilization of spectrally efficient 5 kHz channels. In the *Forty-Mile Rule Order,*[268] the Commission eliminated the requirement that a licensee could not hold more than one channel or channel group within a 64-kilometer (40-mile) area unless that licensee could demonstrate that its communications needs warranted additional channels or channel groups. In taking this action, the Commission concluded that "our service rules will foster efficient spectrum use and discourage uneconomic warehousing by providing licensees with the opportunity to provide a

[266] We note that there are currently 1,515 non-nationwide licenses to provide 220 MHz service. A total of 1,190 of those licenses are held by licensees who have met all construction requirements pursuant to the Commission's Rules. As we discuss elsewhere, we also believe there is a sound basis for concluding that future growth in the market for 5 kHz equipment in the 220 MHz band will not be compromised by our decision to eliminate the spectrum efficiency standard. *See* para. 141, *infra*.

[267] Intek Global Web Site, http://www.intekglobal.com/newspr.htm#press2, Apr. 8, 1998. Internal subscribership growth increased 109 percent in the quarter ending March 31, 1998, with an acquisition accounting for further subscriber growth. *Id.*

[268] Amendment of Part 90 of the Commission's Rules To Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, PR Docket No. 89-552, Fourth Report and Order, 12 FCC Rcd 13453 (1997) (*Forty-Mile Rule Order*).

variety of fixed, mobile, and paging services in response to changing market conditions."[269] The Commission also determined that:[270]

> Under the existing 40-mile rule, a Phase I licensee would have to forego the pursuit of additional customer markets until its initial system was fully loaded, even if the additional channels themselves were partially or fully loaded. Removing the 40-mile rule will allow Phase I licensees to acquire additional licenses with which to implement future service plans. Keeping the 40-mile rule with respect to Phase I licensees could unnecessarily interfere with the ability of licensees possessing both Phase I and Phase II licenses to utilize their licenses in a unified fashion.

Thus, we conclude that, subsequent to our adoption of the *220 MHz Third Report and Order*, we have acted to ensure efficient use of 220 MHz spectrum. In particular, we believe our decision in the *Forty-Mile Rule Order* has stimulated deployment of spectrally efficient 5 kHz equipment, a process which was already well under way at the time we made that decision.[271]

138. We therefore conclude that the best public policy (from both a spectrum management and competitive point of view) is to allow 220 MHz service providers to make their own decisions about whether they will build the narrowband systems that are marketed by certain equipment manufacturers, or whether their business plans would be better served through the purchase of alternative equipment with other functionalities. Elimination of the standard preserves the Commission policy of maximizing flexible use of spectrum — carriers planning to offer one-way paging or other services on aggregated channels would not be stymied by the current lack of equipment that meets the standard.

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[269] *Forty-Mile Rule Order*, 12 FCC Rcd at 13459 (para. 13).

[270] *Id.* at 13459 (para. 14). The *Forty-Mile Rule Order* applied to Phase I licensees in the 220 MHz service. With respect to Phase II licenses, the Commission, in the *220 MHz Third Report and Order*, did not limit the number of licenses that may be acquired by one entity, and the Commission also allowed licensees to place stations anywhere within their geographically licensed areas. *220 MHz Third Report and Order*, 12 FCC Rcd at 10969, 10982-83 (paras. 53, 80).

[271] The chairman of the 220 MHz Council, American Mobile Telecommunications Association (AMTA), in commenting on the *Forty-Mile Rule Order*, stated that the 5 kHz channels in the band are not conducive to cellular-like offerings. "'We're doing advanced technologies already, but our bread and butter is plain-vanilla dispatch. We're going to continue to be the low-cost alternative.'" C. Carlson, "Band May Consolidate," Wireless Week, Sept. 1, 1997, at 104 (quoting James Evans). Another industry official stated that "'[t]his [the *Forty-Mile Rule Order*] removes the last shred of uncertainty in the band, especially for companies seeking capital beyond their own resources to expand.'" *Id.* (quoting Alan Shark, President, AMTA).

139. This policy is particularly important for 220 MHz spectrum because small businesses may be prominent players in developing this spectrum, and these businesses would directly benefit from a flexible spectrum use policy that enables them to respond efficiently to marketplace demand. Given the relatively small amount of spectrum assigned in a 220 MHz license, we think it is reasonable to expect that acquisition of the 220 MHz Phase II licenses may be relatively affordable, and therefore this service may be particularly attractive to small businesses.[272] Since the Commission has chosen to extend service flexibility to licensees acquiring licenses in other spectrum auctions,[273] we see no sound policy basis for retaining a spectrum efficiency standard that will restrict such flexibility in the 220 MHz band.

140. Although we note that no party has petitioned directly for this result, we do not believe that any 220 MHz licensee or applicant will be harmed by this grant of additional flexibility.[274] If we were to grant petitioners' requests to exempt paging from the spectrum efficiency standard, the resulting change in the Commission's existing rules would, we believe, hardly be less extensive than elimination of the standard. Either change would have implications for the business decisions of parties interested in obtaining 220 MHz licenses, particularly licenses with contiguous channel assignments. While we have found it advisable to eliminate the standard in order to preserve and promote our goal of fostering flexible use of the band, we are confident that market forces and consumer demand will be adequate in driving efficient use of the spectrum.

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[272] A 220 MHz equipment manufacturer representative has observed that the 220 MHz auction will be "the first auction in which small businesses really could participate." *See* D. Wayne, "Unresolved 220 MHz Auction Issues May Delay New Round," Radio Communications Report, Mar. 16, 1998, at 9, 10 (quoting Michael Bayly, land mobile marketing director form Midland SMR). Mr. Bayly also expressed concern that the auction rules for the service could hamper participation by small businesses.

[273] *See, e.g., 800 MHz SMR Order*; 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, RM-8553, Implementation of Sections 3(n) and 332 of the Communications Act – Regulatory Treatment of Mobile Services, GN Docket No. 93-252, 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 Rulemaking, 12 FCC Rcd 18600 (1997); 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 332 of the Communications Act – Regulatory Treatment of Mobile Services, GN Docket No. 93-252, Second Order on Reconsideration and Seventh Report and Order, 11 FCC Rcd 2639 (1995).

[274] The filing of a petition regarding any decision contained in a Commission Order tolls the running of the 30-day period during which the Commission may *sua sponte* reconsider its earlier disposition of any issue decided in that Order. As a result, the Commission generally retains the authority to reconsider additional issues when it addresses a specific issue raised on reconsideration. *See* Central Florida Enterprises v. FCC, 598 F.2d 37, 48 n.51 (D.C.Cir., 1978), *cert. dismissed*, 441 U.S. 957 (1979).

141. Our decision should not be construed as a lessening of our commitment to using this band to stimulate innovative narrowband technology. Moreover, eliminating the spectrum efficiency standard for combined contiguous channels marks no major shift in Commission policies regarding utilization of the 220 MHz band. Because the efficiency standard applies only to those licensees who may combine contiguous 5 kHz channels to form larger channels, it has only limited effect on the majority of 220 MHz service licensees whose channels are *not* contiguous. The market for efficient narrowband 5 kHz equipment will remain strong, in our view, because most 220 MHz service licenses do not consist of contiguous channels and, thus, service providers will look for reasonably priced, well-designed equipment capable of utilizing 5 kHz channels. We therefore believe that the actions we are taking here will not adversely affect the development and deployment of narrowband equipment.

142. Turning to other arguments made in the record, we do not concur with SEA's suggestion that licensees unable to find paging equipment that meets the standard should turn to Section 90.203(k)(2) of the Commission's Rules for relief.[275] Section 90.203(k)(2) provides for type acceptance of transmitters that do not meet the efficiency standard, but only if such transmitters are accompanied by a technical analysis demonstrating that they will provide more spectral efficiency than would be provided by use of the spectrum efficiency standard.[276] Developments since the time of our adoption of the alternative efficiency showing, however, have made us less confident that equipment manufacturers or service providers are in a position to make the requisite technical showing. First, no party in this reconsideration proceeding has suggested any particular technical analysis as an alternative to the bits-per-second, per 5 kHz channel, measurement used in the efficiency standard. Second, ComTech, in a petition currently pending before the Commission seeking waiver of the efficiency standard,[277] does not advance any technical analysis in support of the waiver request, arguing instead that "a 25 kHz paging system that fails the data efficiency standard could still service several hundred thousand customers . . . ."[278]

143. Furthermore, no party has suggested that equipment that would be capable of achieving superior spectrum efficiency, if it were evaluated by some alternative technical analysis, is either currently or imminently available. Therefore, we believe that there is no reasonable basis upon which to conclude that manufacturers or licensees could rely on Section

[275] "The flexibility available under this rule appears to be unappreciated by those wanting to abolish the efficiency standard for paging." SEA Third Order Comments at 11.

[276] 47 C.F.R. § 90.203(k)(2).

[277] Comtech, Request for Waiver of Rules Pertaining to 220 MHz Specialized Mobile Radio Systems, filed June 18, 1997.

[278] *Id.* at 3.

90.203(k)(2) standard to provide an adequate opportunity for paging equipment to be type accepted for the 220-222 MHz band.

144. We also believe that the alternative mechanism contained in Section 90.203(k)(2) could be problematic because it can serve to competitively disadvantage carriers who are required to wait until an alternative showing is accepted by the Commission. The uncertainties associated with whether the Commission will act to grant the alternative showing, together with the time and expense that accompany pursuit of an alternative showing, contribute to this disadvantage. This latter concern could be ameliorated by the opportunity we have provided to equipment manufacturers to seek prospective advice regarding whether equipment they plan to develop would meet the efficiency standard.[279] It remains the case, however, that our principal concerns[280] would not be mitigated by any invocation of this mechanism for prospective advice.

145. We also conclude that allowing the spectrum efficiency standard to sunset would not provide a sufficient solution to the problems with the efficiency standard that have been raised in the record. We believe that this is especially true in the case of small businesses that may be interested in competing for spectrum in the 220 MHz band and taking advantage of the flexible spectrum use that the Commission's rules permit for the band. We think it would be highly unlikely that businesses would be able to change equipment choices when little depreciation of the equipment's value would have occurred by the end of 2001. Thus, companies intending to aggregate channels would either be forced to acquire the spectrum now through the competitive bidding process an then "warehouse" the spectrum until termination of the standard, at which time they could invest in equipment designed to provide services such as paging on the aggregated channels, or they could operate on the spectrum now through the deployment of 5 kHz equipment, and then change out that equipment after the termination of the standard, notwithstanding the depreciation problems this would pose, in order to utilize aggregated channels. Neither choice seems very attractive, especially for small businesses.

146. With regard to INTEK's assertion that the Commission's goal in this proceeding has been to achieve a "careful balancing of equities" among competing carriers and manufacturers, we would insist that our primary goal in this or any proceeding is to formulate sensible policies that promote the public interest. To the extent that maintaining the 220 MHz spectrum efficiency standard has the effect of denying licensees the operational flexibility we

[279] *See 220 MHz Third Report and Order*, 12 FCC Rcd at 10999 (para. 118 n.212).

[280] *See* paras. 142-143, *supra*.

provided them in the *220 MHz Third Report and Order*, we find that the standard satisfies this test, and we have determined to remove the standard on that basis.[281]

147. Although most of the debate in the record has focused on the standard for data, we are also eliminating the standard for voice. We can discern no reasonable legal or policy basis to make a distinction with respect to the application of a spectrum efficiency standard. Companies desiring to make innovative use of this spectrum for purposes other than paging will likewise be restricted in their ability to do so by a spectrum efficiency standard. Elimination of the standard will grant licensees seeking to provide voice services comparable flexibility to employ the type of technology that best meets their needs. As with 220 MHz licensees that provide data services, we are confident that licensees providing voice services will seek to ensure the success of their business plans by using the most spectrally efficient technologies to serve the maximum number of customers.

148. With regard to other related arguments raised in the record, we disagree with Glenayre's suggestion that we adopt a lenient standard that would become stricter over time.[282] If a stricter standard were phased in, and operators were permitted to continue using equipment they had acquired under the early, more lenient standard, the later standard would probably have little effect. In addition, the further a spectrum efficiency standard for this band stretches into the future, the more difficult judging its usefulness and appropriateness becomes. As we have stated, we believe business considerations are sufficient to induce 220 MHz band licensees to choose spectrally efficient equipment, and it is not our intention to regulate licensees more closely than necessary.

149. In addition, we decline to adopt Rush's and Glenayre's proposal to borrow the efficiency standard from the Refarming proceeding and apply it to the 220 MHz band.[283] Commenters are correct that the Refarming policy was designed in the context of a long-established, congested band with much embedded equipment.[284] The 220 MHz band — a small sector of the radio spectrum, clear of incumbents using older, inefficient technology, in which the Commission has attempted to foster technological innovation — presents quite different circumstances and concerns. We conclude that the argument that application of an identical standard would boost equipment development in both bands, while superficially

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[281] We note that our decision also renders moot the question of whether waiver requests regarding the standards should be subject to public comment, as INTEK requests. *See* INTEK Third Order Petition at 8-9. We therefore do not examine the arguments that have been advanced for and against such a policy.

[282] Glenayre Third Order Petition at 6. *See* paras. 116-117, *supra*.

[283] *Id.* at 6-7; Rush Third Order Petition at 3-4. *See* para. 118, *supra*.

[284] *See* INTEK Third Order Comments at 5-6; SEA Third Order Comments at 8-9.

appealing, offers little benefit. Applying only to aggregated, contiguous channels, and expiring in 2001, the 220 MHz standard touches too few licensees for too short a time to significantly increase equipment development for the refarmed bands. Thus, we are not persuaded that conformance of the two standards would significantly promote the goals of either docket. We also note that nothing in the Refarming proceeding would preclude the use of 5 kHz equipment in refarmed bands.

10. Construction Requirements in Section 90.769 of Commission's Rules

150. In the *220 MHz Third Report and Order* the Commission established specific geographic or population-based service requirements that a nationwide Phase II licensee must satisfy by the end of 5- and 10-year benchmarks.[285] Comtech and Global seek clarification that Section 90.769 of the Commission's Rules, which establishes these construction benchmarks for Phase II nationwide licensees, does not apply to Phase I nationwide licensees.[286]

151. The discussion of the construction requirements in the *220 MHz Third Report and Order* for nationwide 220 MHz services clearly deals with the construction requirements that will be imposed on Phase II nationwide licensees.[287] In addition, the Commission added a heading to the Commission's Rules following Section 90.757 which reads: "POLICIES GOVERNING THE LICENSING AND USE OF PHASE II EA, REGIONAL AND NATIONWIDE SYSTEMS."[288] In order to avoid any confusion on the part of Phase I licensees, however, we clarify that Section 90.769 of the Commission's Rules applies only to Phase II nationwide licensees and not to Phase I nationwide licensees and will amend the title of Section 90.769 accordingly.

11. Return of Pending Nationwide 220 MHz Service Applications

152. The Commission indicated in the *Third Notice* that it had not yet requested the amending information necessary to process the 33 pending Phase I applications for nationwide, non-commercial channels.[289] In the *Third Notice* the Commission therefore

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[285] *220 MHz Third Report and Order*, 12 FCC Rcd at 11017-19 (paras. 158-159).

[286] Comtech Third Order Petition at 12; Global Third Order Petition at 9.

[287] *220 MHz Third Report and Order*, 12 FCC Rcd at 11017-19 (paras. 158-159).

[288] *Id.* at 11125 (Appendix B); 47 C.F.R. § 90.757.

[289] *Third Notice*, 11 FCC Rcd at 206 (para. 30).

sought comment on three different means by which the Commission could address the pending applications.[290]

153. After considering the advantages and disadvantages of each of the proposals for handling the 33 pending Phase I nationwide, non-commercial applications, the Commission concluded, in the *220 MHz Third Report and Order*, that it was in the public interest to return the pending applications and the appropriate filing fees.[291] National points out, however, that the pertinent ordering clause in the *220 MHz Third Report and Order* states "that all pending nationwide . . . 220 MHz applications, together with the appropriate filing fees, will be returned to applicants, without prejudice."[292] National seeks partial reconsideration or clarification that the language in the ordering clause of the *220 MHz Third Report and Order* applies only to pending non-commercial, Phase I nationwide licenses and does not apply to any Phase I commercial, nationwide license application that may still be pending.[293]

154. The Commission's discussion and decision dealing with the return of 220 MHz pending nationwide applications in the *220 MHz Third Report and Order* dealt only with applications for non-commercial, nationwide licenses and did not include a consideration of pending commercial, nationwide 220 MHz applications.[294] We therefore take this opportunity to clarify that the language in the ordering clause (paragraph 345 of the *220 MHz Third Report and Order*) did not apply to the then pending commercial, nationwide 220 MHz applications. We note, however, that the applications for nationwide, commercial 220 MHz licenses have since been dismissed.[295]

12. Acquisition of Multiple Nationwide Licenses

155. In the *220 MHz Third Report and Order*, the Commission decided not to impose any limit on the number of Phase II nationwide channel blocks that a licensee may acquire.[296]

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[290] *Id.*

[291] *220 MHz Third Report and Order*, 12 FCC Rcd at 10949, 11038 (paras. 6, 197).

[292] *Id.* at 11090 (para. 354).

[293] National Third Order Petition at 1-5.

[294] *See 220 MHz Third Report and Order*, 12 FCC Rcd 11031-41 (paras. 183-206).

[295] *See* Public Notice, Commercial Wireless Division Dismisses Remaining Applications for Nationwide Commercial 220-222 MHz Private Land Mobile Licenses, DA 98-641 (Apr. 3, 1998).

[296] *220 MHz Third Report and Order*, 12 FCC Rcd at 10969 (para. 53).

Comtech asks that the Commission amend its rules to permit entities to obtain more than one Phase I nationwide authorization.[297]

156. In the *Forty-Mile Rule Order*, which was adopted after Comtech filed its petition, the Commission repealed Section 90.739(a) of the Commission's Rules for all nationwide and non-nationwide Phase I 220 MHz licensees. This rule provided that a Phase I licensee could not obtain an additional license unless the licensee could demonstrate that an additional system would be justified on the basis of its communications requirements. Section 90.739 of the Commission's Rules[298] was revised to provide that there would be no limit on the number of licenses that may be authorized to a single 220 MHz service licensee. Therefore, no additional action is required by the Commission at this time.

13. Installment Payments

157. To encourage the participation of small businesses in the 220 MHz Service auction, in compliance with Section 309(j) of the Communications Act, the Commission made bidding credits and an installment payment plan available to them. Very small businesses, defined as entities that, together with affiliates and controlling principals, have average gross revenues that are not more than $3 million for the three preceding years, would receive a 25 percent bidding credit. Small businesses that, together with affiliates and controlling principals, have average gross revenues that are not more than $15 million for the three preceding years, would receive a 10 percent bidding credit.[299] In addition, licensees that qualify as small businesses or very small businesses would be entitled to pay their winning bid amount in quarterly installments over the term of the license.[300]

158. In the *Part 1 Third Report and Order*, the Commission considered its use of installment payment plans for future auctions. On the basis of the record in that proceeding and the record developed on installment payment financing for the broadband PCS C block service and on recent decisions eliminating installment payment financing for LMDS and 800 MHz SMR, we concluded that, until further notice, the Commission should no longer offer such plans as a means of financing small businesses and other designated entities seeking

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[297] Comtech Third Order Petition at 3-4.

[298] 47 C.F.R. § 90.739.

[299] *220 MHz Third Report and Order*, 12 FCC Rcd at 11071 (para. 298). *See also* Section 90.1017(a) of the Commission's Rules, 47 C.F.R. § 90.1017(a).

[300] *220 MHz Third Report and Order*, 12 FCC Rcd at 11072 (para. 301). *See also* Section 90.1017(d) of the Commission's Rules, 47 C.F.R. § 90.1017(d).

spectrum licenses.[301] We note that this conclusion was subject to our request for comment in the Second Further Notice of Proposed Rulemaking portion of the *Part 1 Third Report and Order* on installment payment issues and means other than bidding credits and installment payments by which the Commission might facilitate the participation of small businesses in our spectrum auction program.[302] Consistent with this conclusion, we announced that the Commission would shortly suspend the use of installment payment financing for the 220 MHz Service auction.[303]

159. In light of our experience with installment payment plans in previous auctions as outlined in the *Part 1 Third Report and Order*, we conclude that it is in the public interest to eliminate installment payments in the 220 MHz Service auction. In order to facilitate the participation of small businesses by overcoming the barriers they face in mobilizing the necessary financial resources, however, we conclude that it is appropriate to increase the amount of the bidding credits available to small businesses and very small businesses.

160. We, therefore, will amend the Commission's rules to increase bidding credits for the 220 MHz Service, consistent with those established in the *Part 1 Third Report and Order*. Thus, small businesses with gross revenues not to exceed $15 million will receive a 25 percent bidding credit and very small businesses with gross revenues not to exceed $3 million will receive a 35 percent bidding credit. Based on our past auction experience, we believe that the level of these bidding credits will provide adequate opportunities for small businesses of varying sizes to participate in the 220 MHz Service auction.

161. Next, we will amend Section 90.1015 of the Commission's Rules[304] to permit auction winners to make their final payments within ten (10) business days after the applicable deadline, provided that they also pay a late fee of 5 percent of the amount due, without being considered in default. This change will conform our 220 MHz rules with the generally-applicable Part 1 rules.[305]

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[301] 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 Rulemaking, 13 FCC Rcd 374, 398-400 (para. 40) (1997) (*Part 1 Third Report and Order*).

[302] *Id.* at 400 (para. 40).

[303] *Id.* at 401 (para. 43).

[304] 47 C.F.R. § 90.1015.

[305] *See Part 1 Third Report and Order*, 13 FCC Rcd at 428-30 (paras. 93-96) (amending Section 1.2109(a) of the Commission's Rules, 47 C.F.R. 1.2109(a)).

162. The 220 MHz rules provide that winning bidders have ten (10) business days to make timely payment following notification that their licenses are ready to be granted. As we stated in the *Part 1 Third Report and Order*, we believe that in establishing an additional ten (10) business day period during which winning bidders will not be considered in default, we provide an adequate amount of time to permit winning bidders to adjust for any last-minute problems in arranging financing and making final payment. We decline to have a lengthier late payment period because we believe that extensive relief from initial payment obligations could threaten the integrity, fairness and efficiency of the auction process. A late fee of 5 percent is consistent with general commercial practice and provides some recompense to the Federal Government for the delay and administrative or other costs incurred. In addition, we believe that a 5 percent fee is large enough to deter winning bidders from making late payments and yet small enough so as not to be punitive. Therefore, applicants that do not submit the required final payment and 5 percent late fee within the 10-day late payment period will be declared in default and will be subject to the default payment specified in Section 1.2104(g).

163. We emphasize that our decision to permit late payments is limited to payments owed by winning bidders that have submitted timely initial down payments. We continue to believe that the strict enforcement of payment deadlines enhances the integrity of the auction and licensing process by ensuring that applicants have the necessary financial qualifications. In this connection, we believe that the *bona fide* ability to pay demonstrated by a timely initial down payment is essential to a fair and efficient auction process. Thus, we have not proposed to modify our approach of requiring timely submission of initial down payments that immediately follow the close of an auction. We believe that it is reasonable to expect that winning bidders timely remit their down payments given that it is their first opportunity to demonstrate to the Commission their ability to make payments toward their licenses. Similarly, we do not allow for any late submission of upfront payments, as to do so would slow down the licensing process by delaying the start of an auction.

164. Finally, we reiterate that the procedures set forth in Part 1, Subpart Q of the Commission's Rules apply to the Phase II 220 MHz service unless otherwise indicated in Part 90 of the Commission's Rules.[306] We therefore clarify that applicants at the short- and long-form application stages are subject to the reporting requirements contained in the newly adopted Part 1 ownership disclosure rule.[307]

[306] *See* Section 90.1001 of the Commission's Rules, 47 C.F.R. § 90.1001.

[307] *See* Section 1.2112 of the Commission's Rules, 47 C.F.R. § 1.2112.

14. Other Issues

165. Petitions for reconsideration of the *220 MHz Third Report and Order* raise three additional issues concerning Phase I nationwide licensees. Two issues concern the construction benchmarks the Commission had previously set for Phase I licensees. Rush and Metricom contend that the Phase I construction requirements are onerous and unnecessary, and Comtech and Global particularly object to the requirement that Phase I licensees construct all 5 channels at a minimum number of base stations in specified urban areas.[308] The Phase I construction requirements, however, were not developed or addressed in the *220 MHz Third Report and Order*, and we therefore do not believe our reconsideration of that Order to be the appropriate place for us to examine these issues. Concerned parties might consider the option of filing a petition for rulemaking as provided in Section 1.401 of the Commission's Rules.[309]

166. In addition, Comtech, Global, and Rush request that the Commission cease requiring Phase I licensees to obtain specific site licenses for each of their base stations.[310] Again, these Phase I licensing rules were not the subject of the *220 MHz Third Report and Order*. We note that an independent record regarding this issue has already been created in response to a petition for declaratory ruling, and we believe it would be more appropriate to consider the question in the context of that proceeding.[311]

B. 220 MHz Second Report and Order Issues

1. Maximum Distance Relocation Limitations

167. In the *220 MHz Second Report and Order* the Commission adopted a one-time modification procedure that allows licensees to modify their licenses to relocate their authorized base stations to previously unauthorized locations. Under this procedure, licensees with base stations authorized inside any DFA were permitted to relocate their base stations up to one-half the distance over 120 km toward any authorized co-channel base station, to a

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[308] Rush Third Order Petition at 4-5; Metricom Third Order Petition at 3-6; Global Third Order Petition at 5-9; Comtech Third Order Petition at 13-14.

[309] 47 C.F.R. § 1.401.

[310] Comtech Third Order Petition at 11; Global Third Order Petition at 3-5; Rush Third Order Petition at 2-3.

[311] Comtech filed a Petition for Declaratory Ruling regarding this issue with the Wireless Telecommunications Bureau on October 31, 1995. On January 19, 1996, the Commission issued a Public Notice inviting comment and establishing a pleading cycle. *See* Public Notice, Commission Seeks Comment on Comtech Petition for Declaratory Ruling That Licensees of a Nationwide 220 MHz Mobile Communications System are Not Required to License Separately Each of the Systems' Base Stations, DA 96-38 (Jan. 19, 1996).

maximum distance of 8 km.[312] Licensees with base stations authorized outside the boundaries of any DFA were permitted to relocate their base stations up to one-half the distance over 120 km toward any authorized co-channel base station, to a maximum distance of 25 km, so long as they did not locate their base station more than 8 km inside the boundaries of any DFA.[313]

168. In their petitions, AMTA, SMR, and Incom contend that the *220 MHz Second Report and Order* is silent regarding the maximum allowable distance of a move from within a DFA to outside a DFA.[314] AMTA and SMR urge the Commission to clarify or reconsider its decision to allow moves up to a maximum distance of 25 km if the licensee is moving from a location within a DFA to a location outside that DFA and will not move into another DFA.[315] Incom asks that the Commission clarify its position to indicate that a licensee whose initially authorized site is located inside a DFA within 8 km of the perimeter and who seeks to modify to a location outside the DFA be permitted to move its site a maximum of 25 km.[316]

169. SMR asserts that licensees close to a DFA boundary moving outside the DFA into a more rural area are likely to face the same difficulties as a licensee already located outside a DFA in terms of finding alternative sites within a short distance.[317] AMTA and Incom argue that since licensees moving outside a DFA are moving away from the center of population they are unlikely to gain any increased population in their service area.[318] SMR further claims that, to the extent that a licensee is moving away from a more populated and presumably more valuable area, the effect would not be adverse to the interests of entities participating in any subsequent auction for 220 MHz service licenses.[319] Incom also argues that the *220 MHz Second Report and Order* contemplates that the defining element of a

[312] *220 MHz Second Report and Order*, 11 FCC Rcd at 3670 (para. 9).

[313] *Id.*

[314] AMTA Second Order Petition at 5; Incom Second Order Petition at 15; SMR Second Order Petition at 9.

[315] AMTA Second Order Petition at 6; SMR Second Order Petition at 9.

[316] Incom Second Order Petition at 15.

[317] SMR Second Order Petition at 9.

[318] AMTA Second Order Petition at 5-6; Incom Second Order Petition at 15.

[319] SMR Second Order Petition at 9.