6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 0, 1, and 22

[WT Docket No. 12-40; RM Nos. 11510 and 11660; FCC 14-181]

FCC Seeks Comment on Cellular Service Reform of Licensing and Technical Rules, Including Power Limits

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Commission proposes and seeks comment on reforms of its rules governing the 800 MHz Cellular ("Cellular") Service. The proposals include a geographic-based discontinuance of operations rule to replace the current site-based approach, and the establishment of frequency coordinators to review certain applications prior to their submission to the Commission. In addition, the Commission proposes revised Cellular radiated power provisions and related technical rules, including use of a power spectral density ("PSD") model. The goals of the proposed reforms are to provide licensees with increased flexibility, achieve greater efficiency in the provision of new service to consumers, and facilitate deployment of next-generation wireless broadband networks that use advanced technologies.

DATES: Submit comments on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** and reply comments on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments, identified by WT Docket No. 12-40, by any of the following methods:

- Federal Communications Commission's Web Site: http://fjallfoss.fcc.gov/ecfs2/. Follow the instructions for submitting comments.

- Mail: All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th Street SW., Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743. U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW., Washington DC 20554.
- People with Disabilities: Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by e-mail: FCC504@fcc.gov or phone: 202-418-0530 or TTY: 202-418-0432.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Nina Shafran, Mobility Division, Wireless Telecommunications Bureau, (202) 418-2781, TTY (202) 418-7233, or nina.shafran@fcc.gov .

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Further Notice of Proposed Rulemaking ("FNPRM") in WT Docket No. 12-40, RM Nos. 11510 and 11660, FCC 14-181, adopted November 7, 2014, and released November 10, 2014. The full text of this document is available for inspection and copying during normal business hours in the FCC Reference Center, 445 12th Street, SW, Washington, DC 20554. The complete text may be purchased from the Commission's copy contractor, Best Copy and Printing, Inc., 445 12th Street, SW., Room CY-B402, Washington, DC 20554, (202)488-5300, facsimile (202) 488-5563, or via email at fcc@bcpiweb.com. The full text may also be downloaded at:

http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db1110/FCC-14-181A1.pdf. Alternative formats are available to persons with disabilities by sending an e-mail to fcc504@fcc.gov or by calling the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

Comment Filing Instructions

Pursuant to §§ 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415 and 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System ("ECFS"). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121, May 1, 1998.

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://fjallfoss.fcc.gov/ecfs2/.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. Parties should only file in WT Docket No. 12-40.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th Street, SW., Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

Synopsis of the Further Notice of Proposed Rulemaking

I. Introduction

1. In this document, the Commission proposes and seeks comment on several additional reforms of the Cellular Service to establish a more flexible and efficient licensing approach and to facilitate the use of more advanced wireless technologies, as explained in detail in the sections below. The Commission also invites comment on the costs and benefits of all the proposals discussed herein.

II. Permanent Discontinuance of Operations

2. The Commission proposes and seeks comment on a new rule governing the permanent discontinuance of operations, which is intended to afford licensees operational flexibility to use their spectrum efficiently while ensuring that spectrum does not lay idle for extended periods. Under 47 CFR 1.955(a)(3), an authorization will automatically terminate, without specific Commission action, if service is "permanently discontinued." The current § 22.317 of the Commission's rules (47 CFR 22.317) applicable to part 22 Public Mobile Services stations, including Cellular Service stations, defines permanent discontinuance as the failure to provide service to subscribers for 90 continuous days (up to 120 continuous days with an extension). If a Cellular site is permanently discontinued under § 22.317, the licensee's Cellular Geographic Service Area ("CGSA") is modified accordingly to reflect the reduction in licensed area. Through ex parte letters, a coalition of associations – CTIA, the Rural Wireless Association ("RWA"), and the National Telecommunications Cooperative Association ("NTCA") (collectively, the "Coalition") – proposes that a Cellular licensee should be required to file to report a reduction in service area only when it's "actual coverage area drops below 50 percent of its coverage area . . . for more than 12 months."

3. Consistent with its approach in recent proceedings involving other flexible commercial wireless services, notably certain Advanced Wireless Services ("AWS") bands and the 600 MHz band,

the Commission now proposes a new Cellular Service-specific rule, § 22.947 (47 CFR 22.947), defining permanent discontinuance as 180 consecutive days during which the licensee does not operate or, in the case of a Cellular commercial mobile radio service ("CMRS") provider, does not provide service to at least one subscriber that is not affiliated with, controlled by, or related to the providing carrier. The Commission also proposes to revise § 22.317 to make it clear that it would no longer apply to the Cellular Service. As in the Commission's proceedings concerning the rules governing other flexibly licensed wireless services (e.g., AWS-3 and 600 MHz), the Commission's proposed new definition recognizes that, while most Cellular licensees use their systems to provide CMRS offerings, flexibility is needed where Cellular licensees use their systems for private, internal communications because such licensees generally do not provide service to unaffiliated subscribers. The Commission seeks comment on all aspects of this proposal.

4. The Commission also proposes that the new service discontinuance rule be applied to the entire geographic license area, i.e., the CGSA, rather than individual cell sites. Affording Cellular licensees a discontinuance of service period longer than 90 (or 120) days, and applying it on a geographic license area basis, might better enable them to implement technology upgrades involving reconfiguration and possible relocation of cell sites and other network elements. Following the effective date of the new discontinuance rule adopted in this proceeding, a Cellular system not in operation or not providing service within the CGSA to at least one unaffiliated subscriber for the defined permanent discontinuance period – 180 consecutive days under our proposal – would terminate automatically.

5. If an Unserved Area application is filed by a new entrant and granted for a new Cellular system (versus an incumbent's CGSA expansion) in compliance with the Commission's applicable rules, the Commission proposes that the new Cellular system licensee would not be subject to the proposed 180-day permanent discontinuance rule until the expiration of the one-year construction period for that system (including extensions, if any), so as not to penalize new entrants that choose to operate and provide service early in their construction periods.

6. In addition, consistent with 47 CFR 1.955(a)(3), the Commission proposes that, if a

Cellular licensee permanently discontinues service, the licensee must notify the Commission of the discontinuance within 10 days by filing FCC Form 601 so that the Commission can update its Universal Licensing System ("ULS") to reflect the cancellation for the entire CGSA. The license would automatically terminate without specific Commission action if service is permanently discontinued, even if the licensee fails to file the required FCC Form.

7. The Commission tentatively concludes that the approach described above increases licensee flexibility and serves the public interest, and seeks comment on all aspects of the proposal, including the associated costs and benefits. Also, comment is invited on the alternative advocated by the Coalition and on any additional alternatives not discussed in this FNPRM, including the expected costs and benefits and how it would better serve the public interest.

III. Frequency Coordinators

A. Introduction and Background

8. The Commission also proposes and seeks comment on requiring that frequency coordinators perform review of new-system and CGSA-expansion applications in the Cellular Service, pursuant to a new proposed rule (47 CFR 22.985), as it tentatively concludes that frequency coordination will result in authorizing Cellular service more efficiently and effectively. The Commission proposes to require that frequency coordinators perform the first-line review of Cellular applications, including exhibits and attachments such as the electronic map files, for CGSA expansions and new Cellular systems, and to advise the Wireless Telecommunications Bureau ("Bureau") on whether, in the coordinator's assessment, these applications comply with applicable Commission rules. Many Cellular applications contain inaccuracies, even when resubmitted after return by Bureau staff for correction, and errors delay service and also needlessly consume Commission resources. The Commission tentatively concludes that having frequency coordinators review certain major applications under the new Cellular licensing paradigm would further advance the goal of better focusing limited Commission staff resources.

9. Frequency coordination in other wireless services generally involves third parties who advise the Commission on whether potential or actual licensees' proposed operations comply with the

applicable technical rules of a particular service, while also working to minimize interference to licensees operating in a given frequency block, band, or geographic area. Depending on the service, they may recommend restrictions to appear on licenses and comment on other technical issues in applications. In services with multiple frequency coordinators, the Commission often requires a frequency coordinator to notify and transmit certain information to other coordinators certified to coordinate in the affected frequency(ies). A prominent example is in the part 90 Private Land Mobile Radio ("PLMR") Service, including the 806-824/851-869 MHz and 896-901/935-940 MHz bands that are adjacent to the Cellular band. The Commission has recognized the value of PLMR frequency advisory committees since the 1950s, and by the late 1980s, the Commission had mandated the use of private frequency coordinators for most PLMR frequencies. Frequency coordination also is used in a variety of other wireless services, such as certain part 80 maritime and part 87 aviation frequencies, in which frequency coordinators must consider interference to all other similar frequencies within a specific geographic range. More recently, the Commission decided to require the use of frequency coordinators for licensees operating in the part 95 WMTS and Medical Device Radiocommunication Service ("MedRadio").

10. In its November 2013 ex parte letter, the Coalition suggests that, if the Commission opts to use frequency coordination for the Cellular Service, it should give the designated coordinators full authority to approve applications. This would include, the Coalition asserts, authorization of proposed CGSA-expansions, and that such authorizations "would become effective 30 days after the frequency coordinator notifies" the Commission. By this FNPRM, the Commission seeks comment generally on the use of Cellular frequency coordinators, and specifically on the details of our proposal outlined below. However, in light of a federal court decision, USTA v. FCC, 359 F.3d 554 (DC Cir. 2004), the Commission does not seek comment on the suggestion to delegate authority to coordinators to grant applications. We especially urge all parties that preliminarily determine they would be interested in being frequency coordinators to indicate such interest during the comment or reply comment period.

11. All commenters should be specific and detailed, and should review the proposed new rule in Appendix B of this FNPRM and comment on its wording. To the extent commenters offer alternative

ideas not considered herein, they should explain how such alternatives would better serve the public interest and achieve the Commission's goals, consistent with Commission precedent and current spectrum management policies.

B. Coordinator Duties

12. In the Report and Order released November 10, 2014 in this proceeding ('R&O"), the Commission eliminated the need for many different types of Cellular applications. Of the applications that will continue to be filed, the Commission proposes to require the use of Cellular frequency coordinators to review the following: (1) major modification applications claiming at least 50 contiguous square miles of Unserved Area as CGSA; and (2) applications seeking authorization for new Cellular systems. Under this proposal, all other applications, including construction notifications and renewal applications, for example, would continue to be filed directly with the Commission. The Commission further proposes, however, that to the extent such other filings are submitted with a CGSA-expansion or new-system application, those other filings would also need to be filed with a Cellular frequency coordinator for initial review. For example, an application that modifies and/or adds a location requiring an Environmental Assessment, which normally would come directly to the Commission, would have to be submitted to a frequency coordinator if such application is filed along with a CGSA-expansion or new-system application. Using frequency coordinators in this manner could greatly assist in developing and managing the Cellular spectrum.

13. The Commission proposes that Cellular frequency coordinators be private organizations certified by the Commission to review certain categories of applications (as outlined above), including any exhibits, FCC Form Schedules, and electronic maps required with those applications, to ensure compliance with all rules applicable to the Cellular Service. Cellular coordinators would review only applicable technical information for compliance with the rules; they would not, for example, review an applicant's financial or ownership information that may accompany or be linked in an application. Frequency coordinators would work with the applicants to resolve any inaccuracies involving technical information, including the service area boundary ("SAB") and CGSA calculations, ensure compliance

with all applicable rules, and submit the application to the Commission. Consistent with rules governing frequency coordination in other wireless services, the Commission proposes that the frequency coordinators' recommendations be purely advisory, not binding on either the applicant or the Commission. However, the Commission proposes that, in the event of a dispute between an applicant and a frequency coordinator, an applicant would be able to direct the coordinator to submit the application at issue to the Commission without the coordinator's recommendation. In that event, the application would need to explain that the applicant sought frequency coordination but the coordinator did not recommend the proposed operations. The Commission proposes that the applicant have the burden of proceeding and the burden of proof in requesting the Commission to grant its application notwithstanding a coordinator's unfavorable recommendation.

14. Part 90 PLMR frequency coordinators are required to file applications electronically using the ULS electronic batch format. The Commission seeks comment on whether Cellular frequency coordinators should be subject to the same requirement. The Commission also seeks comment on what preparations the Commission would have to make before implementing a frequency coordination regime, such as modifying ULS to accommodate frequency coordinator information and receive electronic batch filing of the applications, including any maps submitted electronically, and educating the frequency coordinators. The Commission seeks comment also on whether Cellular frequency coordinators should have additional duties. Commenters are invited to address all these issues surrounding the appropriate duties of frequency coordinators for the Cellular Service and they should indicate how their positions serve the public interest, including a cost-benefit analysis.

C. Commission's Continued Role

15. If it appears that a Cellular frequency coordinator's performance is inconsistent with the public interest obligations that would be imposed on it through this proceeding, an inquiry would be initiated that could lead to its decertification, as with other wireless services for which frequency coordinators are used. The Commission would also continue to maintain the Cellular license data, including the online CGSA map files. Given that frequency coordinator recommendations are proposed

to be advisory and not binding upon either the applicant or the Commission, we envision that Cellular applications would continue to go on public notice once received by the Commission and that the Commission would resolve competing applications and petitions to deny, if any.

16. Many part 90 PLMR applicants that undergo frequency coordination receive conditional authority; that is, they are permitted to commence their proposed operations once the application has been favorably reviewed and submitted by a frequency coordinator and is pending before the Commission. In that situation, a minimum wait time of ten days is imposed between submission of the application and the onset of operation, during which the Commission can evaluate the proposed operations, including the frequency coordinator's recommendation, and take adverse action if necessary. The Commission seeks comment on whether Cellular applicants should receive similar conditional operating authority while their applications are pending before the Commission. Making conditional authorization available following the frequency coordinator's recommendation – if the Commission does not find a problem with the recommendation – could provide flexibility to Cellular applicants and benefit consumers by permitting more rapid deployment of proposed service. Commenters are invited specifically to address whether sound administrative principles support permitting conditional operation before the 30-day public comment period ends, and whether it should continue even if a competing application or petition to deny is filed.

17. In addition, the Commission proposes to oversee the Cellular frequency coordinators and their processes on an ongoing basis, and to work to resolve disputes that cannot be resolved between an applicant and frequency coordinator. The Commission seeks comment on the circumstances under which the Commission should become involved in such a dispute, and the timing. Should the Commission specify a reasonable timeframe, e.g., 60 days following the frequency coordinator's recommendation to the applicant, during which the applicant and the frequency coordinator are to endeavor in good faith to resolve the matter before appealing to the Commission? Once the dispute is brought before the Commission, what procedures are appropriate for Commission staff to resolve the dispute? The Commission seeks comment on all aspects of the continued role for the Commission.

D. Number of Coordinators and Fees

18. In 1997, the Commission generally permitted certain frequency coordinators in the PLMR Industrial/Business Pool band below 512 MHz to coordinate any frequency in the pool, thus ending exclusive frequency coordination and allowing competition among coordinators on certain frequencies. The Bureau subsequently introduced competitive coordination to other part 90 PLMR bands. The introduction of competition among coordinators was intended to promote lower coordination costs for applicants and foster better service to the public, and it has accomplished this purpose. Consequently, the Commission proposes to authorize multiple frequency coordinators for the Cellular Service.

19. If there are multiple Cellular frequency coordinators, the Commission proposes that they have notification requirements similar to those for part 90 PLMR frequency coordinators. In particular, a Cellular frequency coordinator would be required to notify other Cellular frequency coordinators within one business day of making a coordination recommendation and on any day when it does not make a recommendation. At a minimum, the notification would include the following information: name of the applicant; type of application at issue; license (call sign) of the applicant (if applicable); CMA description and channel block of the existing license (if applicable); CMA designator(s) and channel block pertaining to where the applicant is expanding its CGSA or starting a new system; new or modified transmitter location(s) along with coordinates and the antenna height; effective radiated power, antenna center of radiation height above average terrain, height above sea level or height above mean sea level, and distance to the SAB and to the CGSA for the eight radials of each new/modified location; and date and time of the recommendation. Upon request, the notifying frequency coordinator would provide any additional information requested by another certified coordinator regarding a Cellular application already reviewed by the notifying coordinator but still pending before the Commission.

20. Under the Commission's proposal, it would be the responsibility of each Cellular frequency coordinator to ensure that its recommendations do not conflict with the recommendations of any other Cellular frequency coordinator. Should a conflict arise, the affected coordinators would be jointly responsible for taking action to resolve the conflict, up to and including notifying the Commission

that an application may have to be returned. The Commission seeks comment on the proposed notification process, including what information should be provided to coordinators with each notification, and the timing of notifications.

21. The Commission also invites commenters, including parties that at least preliminarily have an interest in being a frequency coordinator candidate, to address whether the market for Cellular frequency coordination is likely to support multiple entities, as well as whether they perceive any problems in allowing more than one frequency coordinator for the Cellular Service.

22. Fees. Because the Commission proposes to have multiple coordinators, the Commission proposes that market forces determine the Cellular frequency coordinators' fees, rather than have the Commission regulate fees. Given that the Commission would continue to process and act on the reviewed applications, as proposed above, applicants would continue to pay Commission application fees (and also regulatory fees). Should the Commission adopt a pricing scheme for the frequency coordinators? If so, what should it be, and how would such an approach better serve the public interest? What are the costs and benefits of a particular scheme? If there is only one frequency coordinator, should the Commission regulate the coordinator fees?

23. The Commission seeks comment on its proposal to certify more than one frequency coordinator and to allow market forces to govern coordinators' processing fees. Commenters should include an analysis of the costs and benefits of whatever proposal they advocate.

E. Coordinator Certification Criteria and Selection Process

24. The Commission proposes that, at a minimum, Cellular frequency coordinators must have the following qualifications: knowledge of the Cellular Unserved Area licensing process (as revised by the companion R&O in this proceeding); ability to register and maintain application information and transmit such information to ULS; technical capability to review applicants' proposed licensing areas to determine compliance with all rules and procedures applicable to the Cellular Service; and both ability and willingness to develop procedures to work with Cellular applicants, which includes offering coordination services on a non-discriminatory basis and responding to applicant requests or concerns on a

timely basis. The Commission also expects that the frequency coordinators would not have a conflict of interest when reviewing applications (or can show that any pre-existing conflict of interest has been resolved). Although we do not propose at this time to require that the coordinators be national in scope and representative of all eligible Cellular licensees, the Commission expresses strong preference for those characteristics.

25. Permitting current Cellular applicants or licensees to serve as frequency coordinators – either for themselves or for other applicants – could run counter to the public interest and undermine the goals of the proposal. As discussed above, a key goal is to have frequency coordinators resolve the high volume of inaccuracies in Cellular applications so that new service is not delayed, and also so that Commission staff resources are no longer needed for repeated review and return of such filings. The Commission expects that frequency coordinators specifically dedicated to this task would ensure that applications are accurate and compliant with Commission requirements prior to submitting them to the Commission. Furthermore, having a current Cellular applicant or licensee as a frequency coordinator would increase the likelihood of a conflict of interest – a problem the Commission wishes to avoid, as it could delay the processing of Cellular applications contrary to the goal to expedite new service. Therefore, the Commission proposes to make Cellular licensees ineligible to be certified as Cellular frequency coordinators. The Commission seeks comment on the proposal to not certify Cellular frequency coordinators that are current or prospective Cellular Service licensees. The Commission also seeks comment on whether a current Cellular applicant or licensee's agent (e.g., a law firm or a consulting engineering firm), and affiliates of Cellular licensees and applicants, should also be prohibited from serving as a frequency coordinator. If not, how would potential conflicts of interest be resolved? Also, if the Commission decides not to certify affiliates of Cellular licensees and applicants as frequency coordinators, the Commission invites comment on how to define "affiliate" in this context. In particular, the Commission invites comment on whether the definition of affiliate used for purposes of determining whether an auction participant is a "designated entity" could also be used in this context.

26. Under 47 CFR 0.131(m), the Bureau has delegated authority to certify frequency

coordinators for the services that it administers, including the Cellular Service. The Commission proposes that, pursuant to this delegated authority, the Bureau would select the Cellular frequency coordinators using the same procedures that were adopted for WMTS and MBANs. Accordingly, in the event that the Commission ultimately adopts rules establishing the use of frequency coordinators for the Cellular Service, the Commission would direct the Bureau to issue a Public Notice announcing procedures for interested parties to submit requests to become coordinators. Thereafter, the Bureau would be directed to issue an Order to designate the coordinators and execute a Memorandum of Understanding ("MOU") with those selected. The MOU would set forth the coordinators' authority and responsibilities. The frequency coordinators would assume their duties upon execution of the MOU. The Commission seeks comment on whether this process, which worked well for selecting the WMTS coordinator, would permit the Commission to complete the coordinator selection process in a timely and efficient manner. The Commission seeks comment on all aspects of the frequency coordination certification and selection criteria.

IV. Radiated Power Limit Rules for the Cellular Service

A. Introduction and Background

27. In this Section of the FNPRM, the Commission considers changes to the Cellular radiated power limits and related technical rules under the following specific topics: power spectral density ("PSD"); power flux density ("PFD"); technological neutrality for field strength limits; height-power limit; mobile transmitters and auxiliary test transmitters; and power measurement. (For the purpose of this proceeding, PFD is the amount of radio frequency energy or power that would be present over a given unit of area (e.g., 100 microwatts per square meter). Therefore, PFD can be used to describe the strength of signals on the ground in a given location.) The Commission also addresses coordination requirements, including international coordination, and the SAB formula set forth in § 22.911 of the Commission's rules. The Commission takes this action with a goal of implementing technology neutral rules that allow licensees to choose technologies based upon their deployment plans without being hindered by an unnecessarily restrictive rule. The Commission also strives for regulatory parity among

competing services with consideration of unique circumstances for the band at issue that may require special requirements to prevent interference.

28. The Commission seeks comment on its proposals and those of the commenters as discussed herein; it also invites alternative ideas and proposals concerning the Cellular power rules and related provisions. The Commission encourages public safety entities at the local, regional, and national levels to submit their comments on revising the rules to permit all Cellular licensees nationwide to use, at their option, a PSD model. It asks that all commenters be specific, detailed, and include pertinent engineering data and technical analyses. To the extent commenters advocate an alternative or modification, they should include an explanation of the public interest benefits of such alternative or modification, and comment on the economic costs and benefits of the various possible approaches. All interested parties should also review and comment on the proposed rules in Appendix B of this FNPRM, including definitions. Alternative wording should be provided with comments that advocate additions or modifications to our proposals.

29. In a Petition for Rulemaking filed by AT&T Services, Inc. on behalf of AT&T, Inc. and its subsidiaries ("AT&T"), AT&T seeks specifically to modify § 22.913 (47 CFR 22.913) to permit effective radiated power ("ERP") measurement in terms of PSD, with limits of 250 watts ("W") per MHz in non-rural areas and 500 W/MHz in rural areas. In response to a Public Notice released by the Bureau seeking comment on AT&T's Petition, interested parties filed comments and reply comments, generally supporting a PSD model as an option for ERP measurement, although some expressed concerns or proposed modifications, as discussed below. AT&T also filed a request for interim waiver of § 22.913 to use a PSD model for certain Cellular stations in Florida, and subsequently filed a request for interim waiver to use the PSD model for certain Cellular operations in Vermont. The Bureau sought comment on them, and in the docket concerning the Florida PSD Waiver Request (WT Docket No. 13-202), several Florida public safety and critical infrastructure entities submitted comments; no public safety entities commented regarding the Vermont PSD Waiver Request (WT Docket No. 14-107).

30. In 2007 and 2008, the Commission revised the radiated power rules for several other

wireless services, implementing a PSD model (among other related technical rule modifications), but declined at that time to revise the Cellular ERP rules, primarily because of significant restructuring (800 MHz rebanding) ongoing in the immediately adjacent frequencies, which are used by public safety entities, and also because of a lack of industry support and the need for more time to assess the potential impact of using the PSD model in the Cellular band. Ultimately, the rebanding process will move public safety and other narrowband land mobile operations away from the Cellular and high-density ESMR base station transmitting frequencies, thereby reducing the potential for interference between incompatible services. However, in some parts of the country, the rebanding process is not completed and public safety operations continue using frequencies adjacent to the lower edge of the Cellular base station transmitting band at 869 MHz. Further, even after rebanding is accomplished in a region, some public safety entities may continue to use legacy radios that could be susceptible to Cellular base station interference because the filtering of the radio does not reflect the post-rebanding channel plan for public safety operations. The rebanding proceeding outlined the circumstances where legacy devices would be entitled to interference resolution procedures and also created information exchange procedures so public safety licensees could be notified of new or modified ESMR and Cellular base station activities.

B. PSD Proposal for Non-rural and Rural Areas

31. Based on the preliminary record, and consistent with the Commission's prior revisions to, or newly adopted power rules for, other wireless services, the Commission proposes to revise § 22.913 to permit measurement of base transmitter and Cellular repeater power using a PSD model. The goals are to promote spectral efficiency and provide licensees with flexibility to select the technology that best suits their needs, whether narrowband or wideband, and increase harmonization of the Commission's rules across commercial wireless services to the extent practicable, taking into account the unique features of each service band. At the same time, the Commission is mindful of the need to protect systems in the immediately adjacent bands, particularly public safety operations. The Commission seeks comment in the Sections below on various options to achieve its goals.

32. In considering a PSD model as an option for Cellular licensees deploying wideband

technologies, the Commission discusses below and seeks comment on the following three proposals to develop a better record for determining what the appropriate PSD limits should be:

- AT&T's proposal of 250 W/MHz ERP in non-rural areas, 500 W/MHz ERP in rural areas;
- Union Wireless's proposal of 500 W/MHz ERP in non-rural areas, 1000 W/MHz in rural areas; and
- Verizon Wireless's proposal of 1000 W/MHz ERP in non-rural areas, 2000 W/MHz in rural areas.

The Commission also seeks comment on alternatives not considered in this FNPRM. Each of the proposals listed above specifies power limits that would supplement the current Cellular ERP limits of 500 W in non-rural areas and 1000 W in rural areas. The distinction is that the current limits apply to each emission or channel, so that a licensee using narrow emissions can transmit more total power per MHz than a licensee using wideband emissions. For example, under the current rules, a Cellular licensee using a 5 MHz LTE emission in a non-rural area would be limited to 500 W in those 5 MHz (100 W/MHz), while a licensee in the same 5 MHz could deploy four CDMA channels with an aggregate power of 2000 W ERP (400 W/MHz), or 12 GSM channels with an aggregate power of 6000 W ERP (1200 W/MHz). (This assumes that the licensee is deploying 4 CDMA channels in 5 MHz (4 X 500 W = 2000 W), or using every other GSM channel in 5 MHz for a total of 12 channels (12 X 500 W = 6000 W).)

33. In support of AT&T's proposal, its Petition includes a study that purports to show that shifting to PSD-based power limits would create an interference environment that is "not appreciably different from that of existing Cellular deployments" and which, according to AT&T, is even better in some cases. AT&T states that the study looked at five different technological cases, including GSM, Universal Mobile Telecommunications System ("UMTS"), and LTE systems in various configurations in the Cellular band. According to AT&T, the study shows that deployments of 2X2 Multiple Input Multiple Output ("MIMO") LTE – using the PSD model with the limits advocated by AT&T – would

maintain the status quo with respect to the potential interference impacts on adjacent services, and in particular, the Public Safety Services.

34. Broadpoint, LLC d/b/a Cellular One, Cincinnati Bell Wireless LLC, NE Colorado Cellular, Inc., Smith Bagley, Inc., and Union Telephone Company d/b/a Union Wireless ("Union Wireless") (collectively, the "GSM Licensees"), which own and operate GSM/EDGE Cellular networks, argue that imposing AT&T's proposed PSD limits on carriers using such technologies would result in reducing their existing coverage, with a dramatic increase in roaming costs for customers or loss of signal altogether. One of the GSM Licensees, Union Wireless, adds that the revised rule should articulate measurement in terms of effective isotropically radiated power ("EIRP"), just as for certain other wireless services, including the Broadband Personal Communications Service ("PCS"). Specifically, it argues that carriers operating with less than 1 MHz of bandwidth should be permitted up to 820 W EIRP in non-rural areas, 1640 W EIRP in rural areas (equivalent to the current 500 W ERP and 1000 W ERP limit, respectively), and that corresponding PSD limits for carriers operating with more than 1 MHz of bandwidth should be 820 W/MHz EIRP non-rural, 1640 W/MHz EIRP rural (equivalent to 500 W/MHz ERP and 1000 W/MHz ERP, respectively). Bluegrass Cellular, Inc. and Affiliates d/b/a Bluegrass Wireless (collectively, "Bluegrass"), which is a CDMA carrier, contends that AT&T's proposal would cause stronger signals into Bluegrass markets, thereby increasing the noise level, and that carriers like Bluegrass need a sufficient transition period to renegotiate SAB extension agreements to prevent harmful interference. CTO supports a rulemaking to ensure equity among commercial licensees in different bands, but also expresses concern about the fiscal impact of changes in licensing rules on the budgets of public safety entities. In its reply comments, AT&T emphasizes that it seeks only to supplement the rule to permit carriers to use whichever model is better suited to their circumstances, and that, at the PSD limits AT&T advocates, the power injected into Bluegrass's receivers in adjacent areas or co-located sites remains the same.

35. Verizon Wireless argues that PSD limits should be added to the rule at significantly higher levels, mirroring the limits set for the 700 MHz Services: 1000 W/MHz for non-rural areas, and

2000 W/MHz for rural areas, for stations transmitting on bandwidths greater than 1 MHz. For stations transmitting on bandwidths of 1 MHz or less, Verizon Wireless argues that the Commission should either retain the current ERP limits as an option, or adopt maximum power limits of 1000 W and 2000 W for non-rural and rural areas, respectively. According to Verizon Wireless, the limits proposed in the Petition will negatively impact both coverage and capacity, putting Cellular licensees that deploy broadband technologies at a significant disadvantage compared to carriers deploying such technologies in other service bands, especially in rural areas. Verizon Wireless argues that the Commission should also adopt a PFD limit (discussed in the next Section below).

36. Several Florida public safety entities submitted ex parte letters regarding AT&T's Florida PSD Waiver Request in WT Docket No. 13-202. They expressed a number of concerns, arguing that the technical study submitted by AT&T infers a burden on public safety licensees to incorporate new radios or additional filtering, that using a PSD model will result in a significant increase in power from AT&T, causing harmful interference to radio systems with multiple police users from federal, state, county, city, and Tribal organizations, that AT&T should conduct testing, and alleging increased costs for public safety licensees if a PSD model is adopted, not only in terms of dollars for new radio purchases, but also in terms of extra weight and size of the radios used, reduced sensitivity, and potential operational burdens.

37. AT&T then sought and was granted an experimental special temporary authorization to conduct testing using a PSD model in Florida. Taking into account the results of the testing, as documented in ex parte letters submitted by AT&T and Miami-Dade County, the Bureau recently granted the Florida PSD Waiver Request in part, conditioned on compliance with new rules that may be adopted in this rulemaking proceeding and subject to certain operational conditions to prevent harmful interference. (See DA 14-1419 in WT Docket No. 13-202.) In addition, the Bureau granted the Vermont PSD Waiver Request, similarly conditioned, also noting the absence of public safety entities with licensed base stations in the Burlington, VT CMA. (See DA 14-1418 in WT Docket No. 14-107.)

38. The Commission proposes to keep the current base station ERP limits (applied per channel or emission bandwidth) for those licensees that use technologies incompatible with a PSD ERP

model (applied per MHz of channel or emission bandwidth), and also provide power flexibility to deploy wideband technologies. The Commission tentatively concludes that a PSD ERP model – as an option – would better accommodate newer technologies employing wider bandwidths, notably LTE, by establishing ERP caps per units of 1 MHz of an emission's bandwidth rather than capping the ERP per each emission bandwidth. To minimize adverse effects on licensees operating with GSM and CDMA technologies in the Cellular band, the Commission proposes to permit licensees using narrowband technologies to comply with the current limits of 500 W ERP per emission in non-rural areas and 1000 W ERP per emission in rural areas. Maintaining the existing power limits as an option would allow licensees to continue to operate as currently deployed, and would prevent potential power reductions for non-wideband technologies (e.g., GSM and CDMA) if a lower PSD limit is applied. (For example, a licensee deploying CDMA technology transmitting a signal with a bandwidth of 1.25 MHz could employ a power level of 500 W ERP under the legacy limit; alternatively, in a 250 W/MHz scenario, the same licensee would have a maximum power level of 312.5 W ERP in 1.25 MHz bandwidth.) The Commission seeks comment on this approach. The Commission also seeks comment on whether there is a need to increase Cellular power levels consistent with other services (e.g., the 700 MHz Services rules impose a limit of 1000 W ERP for emissions less than one MHz in non-rural areas, and 2000 W ERP for emissions less than one MHz in rural areas), or whether the current limits are sufficient. If insufficient, what new limits would be the most appropriate for per-emission Cellular transmissions in rural and non-rural markets, respectively? The Commission also seeks comment on updating the terminology in the rule. Specifically, should the 500 W ERP be applied per channel, per channel bandwidth, per occupied bandwidth, or some other emission description? All commenters addressing this issue should support their arguments with technical showings.

39. Verizon Wireless recommends applying a PSD limit only to Cellular base stations transmitting emissions greater than 1 MHz. The Commission does not propose any such bandwidth dividing line for the purposes of applying PSD in the Cellular Service because it could disadvantage certain carriers. For example, a licensee using a 1.25 MHz CDMA technology would currently be

permitted to use 500 W ERP across that channel, but under a 250 W/MHz PSD requirement, that licensee would have to lower its power and reduce service coverage. The Commission invites comment on its proposal not to establish a bandwidth dividing line and on its assumption regarding the potential effect of such a dividing line on certain licensees.

40. AT&T's PSD proposal (250 W/MHz in non-rural areas and 500 W/MHz in rural areas) would provide Cellular licensees with less power than other current CMRS providers, potentially placing Cellular licensees at a competitive disadvantage. Cellular licensees deploying LTE base stations might, as a result, have less reliable coverage, necessitating deployment of more base stations at a greater expense, and might have a difficult time supplementing existing service with Cellular spectrum because of the power discrepancy. This option would allow an LTE 5 MHz emission a total of 1250 W ERP; however, the power would be spread across a wider bandwidth and unlikely in our view to present increased interference potential to other services. Under the current rules, a Cellular licensee using the same 5 MHz could deploy four CDMA channels with an aggregate power of 2000 W ERP, or 12 GSM channels with an aggregate power of 6000 W ERP. The Commission seeks comment on all aspects of the AT&T PSD proposal, including the adequacy of the proposal to allow the full potential of wideband modulation schemes and services that Cellular licensees may wish to provide, and also the potential to cause interference to other services.

41. Next, the Commission seeks comment on Verizon Wireless's proposal to adopt PSD limits similar to those adopted for upper 700 MHz licensees (1000 W/MHz in non-rural areas and 2000 W/MHz in rural areas), with a PFD limit to minimize the interference potential on the ground within one kilometer of a base station. The proposal would provide power consistent with certain other CMRS bands, thereby allowing Cellular licensees to compete on a level playing field and also allowing CMRS licensees holding both Cellular and other CMRS spectrum to deploy base stations with an expectation that they could achieve consistent and reliable coverage across different service bands. The increased power does, however, come with an increased risk of potential interference to adjacent public safety operations that have not gone through rebanding or that use radios less capable of filtering out emissions from

Cellular base stations. As discussed in more detail below in the next section, Verizon Wireless contends that the increased PSD limits paired with a PFD limit would address the increased interference potential around the base station, and the Commission seeks comment on Verizon Wireless's proposal, its adequacy to address the needs of Cellular licensees seeking to deploy wideband technologies, and its potential to cause interference to public safety operations or any other licensees in adjacent markets or service bands.

42. Further, the Commission seeks comment on whether the interference resolution provisions adopted in the rebanding proceeding allow us to adopt Cellular power rules consistent with other CMRS bands with the assurance that any unacceptable interference that does occur will be appropriately addressed pursuant to §§ 22.970 through 22.973 of our rules. Finally, the Commission seeks comment on other commenters' PSD approaches, including the proposal by Union Wireless, which specifies power in terms of EIRP and proposes power limits of 820 W/MHz EIRP for non-rural and 1640 W/MHz EIRP for rural areas.

43. The Commission also proposes to allow the doubling of the PSD limit in rural counties, as in other CMRS bands. The Commission seeks comment on this proposal and also on whether the Commission should adopt a staggered power limit, whereby the licensee would operate at the suggested AT&T limits (250 W/MHz in non-rural areas and 500 W/MHz in rural areas) if narrowband land mobile operations exist in adjacent spectrum, and at higher power limits after such entities are rebanded to a new location. The Commission also seeks comment on how base station power limits should be applied in the deployment of base stations. That is, should the limit be applied per emission or channel, per transmitter, per sector, or for the entire base station, and how is this application affected by MIMO antenna configurations? For example, if a licensee uses 2x2 or 4x4 MIMO, should it be forced to divide its power accordingly?

44. The Commission seeks comment on all aspects of its proposals and others on the record, and also invites commenters to submit alternative proposals and ideas that would advance the goals to provide power flexibility, ensure parity among competing or complementary services, and safeguard

spectral compatibility with licensees in adjacent markets and adjacent bands. The Commission reiterates that commenters should provide engineering data and technical analysis as well as specific wording for the applicable rules to support their showings, particularly if advocating alternatives not discussed in this FNPRM.

C. Power Flux Density

45. Verizon Wireless argues that the Commission should adopt a PFD limit to mitigate the potential for interference around Cellular base station transmitters, particularly to public safety operations. According to Verizon Wireless, PFD limits permit the licensee to aim the signal away from the ground, limit signal strength in close proximity to the base station, and allow licensees to operate at greater power levels without sacrificing protection. It further contends that the PFD limit applicable to the upper 700 MHz band is appropriate for the Cellular band and that, with PSD limits of 1000 W/MHz non-rural and 2000 W/MHz rural, the PFD that would be produced by such stations through a combination of antenna height and vertical gain pattern must not exceed 3000 microwatts per square meter on the ground over the area extending to 1 km from the base of the antenna mounting structure. Verizon Wireless includes a summary of results of testing conducted by V-COMM.

46. It appears that Verizon Wireless intends its proposed PFD limit of 3000 microwatts per square meter to apply to any base station with emissions exceeding 1000 W ERP, similar to the limit for the upper 700 MHz band. For the upper 700 MHz band, the Commission established a PFD limit that applies to emissions greater than 1000 W ERP, regardless of the bandwidth of the emission. For the lower 700 MHz band where there was no public safety spectrum, the Commission established PFD limits that apply, in non-rural areas, to emissions that exceed 1000 W and 1000 W/MHz, and in rural areas to emissions that exceed 2000 W and 2000 W/MHz, allowing more power relative to the upper 700 MHz band before PFD limits apply. This approach might be an effective tool to limit the amount of potentially interfering energy on the ground around base stations if the Commission ultimately decides to adopt higher PSD levels for the Cellular Service than what AT&T proposed. Notably, however, the Commission did not adopt PFD limits for PCS or certain AWS when it revised the radiated power rules

for those services to permit use of a PSD model.

47. A factor in the upper 700 MHz band's PFD limit that is shared with the Cellular band is a desire to reduce the interference potential to adjacent channel public safety operations. If the Commission adopts AT&T's proposed PSD limits, or some other PSD limits lower than what is proposed by Verizon Wireless, should the Commission also adopt a PFD limit? If so, should the PFD limit only apply if the ERP exceeds a certain level (e.g., 1000 W, as in the upper 700 MHz band, or some other level)? Is 3000 microwatts per square meter on the ground over the area extending to 1 km from the base of the antenna mounting structure the appropriate PFD level to protect public safety operations? Is a different applicable area more appropriate than Verizon Wireless's proposed area? Should a PFD limit only be applicable in areas where the rebanding process has not been completed? Should it be applicable only to those Cellular carriers using the PSD model to measure their ERP, or to all Cellular carriers?

48. The Commission also seeks comment on several other issues raised by Verizon Wireless's proposal. How should the microwatts-per-square-meter level, whether it is 3000 microwatts or some other value, be measured? Should the parameter have a reference or measurement bandwidth of 1 MHz, or some other value, to ensure uniform measurement regardless of channel width? Should the PFD value be an average limit, or a peak value that should not be exceeded at any point within the specified area? Would licensees perform a predictive modeling of this parameter before deployment, or is it a measured value? If the PFD is a modeled parameter, would it be better to establish some allowance for exceeding the PFD over a small portion of the subject area? For example, the Commission could require that the PFD not be exceeded over more than 5% or 10% of the area within 1 km of the transmitting structure. Such an allowance may be needed in areas where rolling terrain could increase the PFD over a small portion of the applicable area. What challenges may be created in enforcing a PFD limit, including consistency and parity in application among different technologies?

49. The Commission seeks detailed and specific comments on all questions and issues mentioned above surrounding the establishment of a PFD limit, and any other issues that commenters believe are related and pertinent. All commenters, whether supporting or opposing the establishment of a

PFD limit, should provide a technical demonstration substantiating their position.

D. Technological Neutrality for Field Strength Measurement

50. In its Report and Order in the proceeding concerning AWS-3, the Commission stated that boundary limits that adjust for large differences in channel bandwidth may be appropriate. However, the Commission stated that it intended to explore the issue of a measurement bandwidth to co-channel boundary field strength limits in a future proceeding due to a lack of consensus on how to apply boundary limits for AWS-3. With the introduction of power flexibility in the Cellular band, licensees could be deploying different technologies with emission bandwidths ranging from 200 kHz to 10 MHz. Therefore, to promote technological neutrality in our rules among different technologies and licensees, the Commission seeks comment on whether the new Cellular field strength limit of 40 dBμV/m, which the Commission adopted in its companion R&O in this proceeding, can be applied in a technology neutral fashion or whether the Commission should adopt a specific measurement bandwidth for field strength measurements or some other limit or metric at the license boundary.

51. Given that the Cellular Service is well-established, what are the considerations for or against specifying a measurement bandwidth for the field strength limit? To ensure uniform application of the limit, would a 100 kHz or 1 MHz measurement bandwidth be appropriate or would that be too stringent, and what would the consequences be? If the Commission adopts a measurement bandwidth that is too wide, would it be potentially difficult to meet the limit and still have adequate signal to provide service at the boundary area? Is a field strength limit with a measurement bandwidth the best metric to address service area boundary interference? If not, what limit and type should be applied? It is appropriate that commenters address application of the field strength limit in a technology neutral fashion, and the Commission encourages all commenting parties to support their position with technical demonstrations. The Commission seeks comment on any other part 22 Cellular rules that may not be technology neutral and invites specific proposals on how they should be amended, with analysis of the potential costs and benefits of such changes.

E. Height-Power Limit

52. Section 22.913(b) currently limits the height of a base station antenna such that the ERP may not exceed an amount that would result in the average distance to the SAB being 79.1 km for licensees authorized to serve the Gulf of Mexico market (the "Gulf"), 40.2 km for all other licensees. Section 22.913(c) provides an exemption from the height-power limit if the licensee coordinates and obtains concurrence from all co-channel licensees within 121 km. No commenter on the record in this proceeding has mentioned changing these height-power provisions. In some other flexible wireless services where the Commission has instituted PSD limits, however, it has also limited the antenna height in which the maximum power may be transmitted and allowed higher antennas if the installation scaled down the power proportionally for antennas above the height allowed for maximum power. For example, under the 700 MHz Services and PCS rules, licensees are required to scale down their power from the maximum levels for antenna heights over 300 and 305 meters, respectively. Other services, such as AWS, are not subject to such limitations.

53. The Commission seeks comment on whether and how the Commission should amend the Cellular height-power limit and exemption rules. Does the Commission need a scaled height-power requirement similar to the one applicable in the 700 MHz band, and if so, what should the values be? With the adoption in the companion R&O in this proceeding of a field strength limit rule to protect neighboring Cellular licensees' CGSA boundaries, the Commission seeks detailed comment, including technical analysis and proposed wording of rules, on whether it is appropriate to delete the current Cellular height-power limit altogether, or whether a limit is still necessary, at least for CGSA expansions into Unserved Area.

F. Mobile Transmitters and Auxiliary Test Transmitters

54. At this time, the Commission is proposing to permit Cellular licensees to use a PSD model only for base station transmitters and Cellular repeaters. No commenter on the record in this proceeding has suggested changing the power limit for Cellular mobile or portable transmitters. Currently, § 22.913(a)(2) sets a limit of 7 W ERP for mobile and auxiliary test transmitters. While the Commission tentatively concludes that the 7 W ERP limit is adequate even for 10 MHz channel widths,

the Commission seeks comment on whether the current limit should be updated or changed, including whether it should be lowered to be consistent with other CMRS bands. While the Commission has not adopted PSD for mobile stations in other services such as PCS or the 700 MHz Services, the Commission seeks comment on whether a PSD limit should be established for mobile and portable Cellular transmitters, and if so, what that limit should be. Does the use of MIMO antenna techniques affect how power is measured and how it should be regulated in mobile devices? The Commission also seeks comment on whether auxiliary test transmitters are still in use and whether a provision applying to such transmitters is still warranted in § 22.913(a)(2). Are there other types of Cellular transmitters that should be addressed in the radiated power rules? Does it serve the public interest to treat Cellular mobile transmitters differently from auxiliary test transmitters, and if so, what should the respective treatments be? The Commission emphasizes that, even if it decides to adopt changes to § 22.913(a)(2), its environmental regulations will still apply.

G. Power Measurement

55. Because mobile devices often operate across multiple service bands, the Commission tentatively concludes that it would serve the public interest to establish consistent measurement techniques for equipment to ease the equipment authorization process, while also taking into account unique factors presented by the band, and seeks comment on whether the measurement techniques for the Cellular Service should be updated. The Commission's Cellular power rules were created when analog technologies were predominantly used, and are not necessarily applicable to current technologies. Here, the Commission discusses peak power versus average power, peak-to-average power ratio, resolution bandwidth, EIRP versus ERP, and accommodating MIMO antenna techniques.

56. Section 22.913 does not specify how power is to be measured, i.e., peak or average power. Digital modulation techniques often produce instantaneous short duration spikes such that the overall power of the emission is lower under average power measurement compared to peak measurement. In revising the radiated power rules for PCS and AWS, the Commission concluded that, for non-constant envelope technologies such as CDMA, WCDMA, and OFDM, limiting PCS and AWS

power on an average basis would more accurately predict the interference potential for such technologies. The record in that proceeding demonstrated that using peak power measurements for non-constant envelope technologies inaccurately suggested a much higher overall operational power, compared to average power levels, due to short duration power spikes. The Commission further found that measurement of average power for PCS and AWS operations must be made during a period of continuous transmission based on a 1 MHz resolution bandwidth. Because the average power approach allows for emissions higher than those under peak power limits, the Commission also concluded that it would serve the public interest to adopt a peak-to-average ratio limit to mitigate the potential for undesirable interference that could result otherwise. The current rules for PCS and AWS reflect these various measurement decisions.

57. No one on the record in this proceeding has thus far addressed how PSD should be measured if the Commission introduces this model into the Cellular radiated power rules. The Commission tentatively concludes that, to account for the characteristics of digital modulation techniques, Cellular radiated power limits – both the legacy limits the Commission proposes to maintain as an option for narrowband technologies and the PSD limits the Commission proposes as an option for wideband technologies – should be measured in terms of maximum average power as measured with a root mean square power averaging detector. Averaging would, under this approach, be permitted only over the various power levels associated with different symbol states while the device is transmitting at maximum power levels (i.e., averaging during any transmitter quiescent periods or reduced power transmissions is not permitted). Because the peak power associated with a noise-like signal is a random variable and, as such, can place unachievable requirements on the measuring instrumentation (e.g., a resolution/measurement bandwidth that exceeds the signal bandwidth), the Commission tentatively concludes that the Cellular output power should not be specified in terms of peak, unless limited to peak PSD (in which case a reference bandwidth should also be specified). The Commission also proposes to specify that power should be measured with a resolution bandwidth, but seeks comment on what that resolution bandwidth should be. The current resolution bandwidth for measuring unwanted emissions

outside of the Cellular band is 100 kHz or greater, but the PCS resolution bandwidth for measuring in-band power is specified as being equal to or greater than the authorized bandwidth. The Commission seeks comment on how the Commission should craft the Cellular power measurement rules to accommodate the various technologies used in the band and others that may be used in the future.

58. The Commission also seeks comment on whether, if the Commission adopts an average power requirement for Cellular licensees, it should be accompanied by a peak-to-average ratio, as the Commission has adopted for PCS and AWS. If the Commission adopts a peak-to-average ratio to be applied over an emission's bandwidth, the Commission proposes that the limit apply to the highest peak power density relative to the highest average power density measured over the entire occupied bandwidth. The reason for specifying the peak-to-average ratio within a reference bandwidth is to be clear the Commission is not referring to the absolute peak power within the total signal but, rather, to the peak within some defined bandwidth, making it a realizable measurement even when the signal greatly exceeds the available resolution/measurement bandwidth. In addition, the peak-to-average ratio would not apply within each and every reference bandwidth bin, as the Commission's Laboratory finds that a peak-to-average ratio limit can be exceeded on a bin-by-bin basis due to intermodulation products, but can be compliant when the overall maximum values are considered. Finally, if the Commission adopts a peak-to-average ratio, the Commission proposes that it be specified on a statistical basis to reflect the fact that the peak power of a "noise-like" signal is a statistical parameter (e.g., peak-to-average ratio level must comply with the limit 99% of the time). The PCS peak-to-average ratio is 13 dB. The Commission seeks comment on all aspects of applying a peak-to-average ratio to the Cellular band, including whether the PCS peak-to-average ratio or some other value is most appropriate for Cellular licensees.

59. The Commission also seeks comment on whether the Commission should convert our Cellular power requirements to EIRP instead of ERP, as suggested by Union Wireless. While these two power specifications entail a simple mathematical conversion from one to another, EIRP may make more sense for the Cellular Service, particularly for mobile and portable devices that have integrated antennas. It is our understanding that dipole antennas are infrequently used to perform compliance measurements

and that practically all measurement antennas in use today provide gain values in terms of dBi. Further, the Commission seeks comment on the impact of MIMO antenna techniques on our radiated power rules and measurement procedures. Through MIMO, a Cellular base station would deploy multiple antennas, each intended to transmit and receive the same signals, allowing increased throughput and reliability by having multiple signals to add together or to compensate for multipath fading. Does the use of MIMO techniques require a modification to the way the Commission specifies Cellular power or perform measurements for equipment authorization? If so, how should the Commission modify the rules and policies to account for MIMO?

60. The Commission seeks comment also on whether any other part 22 rules regarding equipment standards and measurement need to be updated or modified to be consistent with the equipment certification rules in part 2. For instance, part 2 requirements related to spurious emissions at an antenna terminal assume that the unwanted emissions are measured at the antenna terminals (i.e., a conducted measurement). Section 22.917 is not clear on whether the Cellular measurement is conducted or radiated. Should § 22.917 be modified to be consistent with this part 2 requirement?

61. The Commission urges all interested parties, including not only Cellular licensees but also licensees in the immediately adjacent bands, equipment manufacturers, and entities that test Cellular equipment, to provide comments on these questions and issues related to power measurement. Commenters should be specific and detailed, explaining the technical reasons for their views, including whether and how the public interest would be served by adopting any or all of the possible revisions discussed in these paragraphs concerning average power, peak-to-average ratio, related measurement techniques, and other technical requirements needed to obtain equipment certification.

H. Out of Band Emission Limits

62. Section 22.917 (47 CFR 22.917) outlines the current Cellular out of band emission ("OOBE") limits and how these limits are measured. The Commission seeks comment on whether, given technological developments, the Commission should increase the suppression levels set forth in § 22.917. Would increasing the OOBE limits facilitate higher PSD limits without increasing the potential for

unacceptable interference to legacy public safety operations? If so, what should the increased OOBE limits be? Given that changing filtering requirements may temporarily increase the cost of radio equipment, what would be the costs and benefits of increasing the Cellular OOBE limits to protect services outside the Cellular band, including legacy public safety operations that are intended to relocate as part of the 800 MHz rebanding proceeding?

63. In measuring Cellular OOBE in close proximity to the authorized frequency band edge, the Commission permits the use of a narrower-resolution bandwidth (of at least 1% of the emission bandwidth of the fundamental emission) to measure the unwanted emissions that are on frequencies "immediately outside and adjacent to the frequency block" without any requirement for subsequently integrating the results over the full reference bandwidth. The Commission proposes to clarify that this provision only applies in the first 100 kHz immediately outside and adjacent to the authorized frequency block/band, and seeks comment on the proposal. Further, this methodology (i.e., allowing a reduced bandwidth as a percentage of the fundamental emission (occupied) bandwidth) introduces a bias toward narrowband technologies. Therefore, the Commission also seeks comment on whether the Commission should adopt a standard reference resolution bandwidth (e.g., 10 kHz) that would be applicable to all cases irrespective of the signal bandwidth, and thus not create any unnecessary limit discrepancies. The Commission seeks comment generally on revising our Cellular OOBE limits, given the changing 800 MHz spectrum environment, technological developments, and compliance measurement techniques.

I. Other Measures

1. Modification of Section 22.911

64. Section 22.911 (47 CFR 22.911) sets forth the formula for calculating SAB and CGSA contours. The formula, which uses height above average terrain (H) and power (P) values of the proposed new or modified Cellular base station along eight cardinal radials, is designed to establish a uniform license boundary determination method. Under the new rules the Commission adopted in the R&O in this proceeding, Cellular licensees are still permitted to expand their CGSAs and have added flexibility to extend their SABs beyond their CGSA boundaries. The Commission indicated that, for purposes of

measuring the service area within an SAB extension or CGSA expansion, the § 22.911 formula is a proven method. Now, in the context of considering the adoption of a PSD model for the Cellular band, the Commission seeks comment on how to ensure a technology neutral application of the SAB formula, given that P could vary widely depending on the technology chosen by the licensee.

65. Changing the value could have a significant impact on the CGSA-expansion process because, if the Commission adopts a PSD model as proposed above, P could be increased from a value of 500 W to several thousand W depending on the occupied bandwidth and the specific PSD value. The GSM Licensees argue that the rules should be modified to express what they reference as the 32 dBμV/m field strength limit and the ERP term of the related SAB distance formulas in § 22.911 "in terms of electric field spectral density and ERP spectral density (PSD) respectively for broadband carriers." If § 22.913 is revised to include a PSD model without some form of normalization, the Commission is concerned that this could unfairly penalize licensees using narrowband technologies and thus would not serve the public interest. Accordingly, while the Commission concluded in the R&O that the § 22.911 formula should continue to be used for the purpose of calculating SAB contours and CGSAs, the Commission tentatively concludes that a normalization method needs to be developed to accommodate higher ERP values created by wideband emissions.

66. The Commission proposes, in the event that it ultimately adopts a PSD model for the Cellular band in this proceeding, to establish some method to allow P in the formula to vary so as to equalize the effects of PSD when applying for Unserved Area to expand a CGSA, or when extending an SAB into Unserved Area and providing service on a secondary basis only, in compliance with the new rules adopted in the R&O in this proceeding. One option could be to require licensees using a PSD model for their Cellular operations to use only the power (P value) contained in 1 MHz or 2 MHz of their occupied bandwidth for the purpose of determining the contour of the new or modified cell site. If the Commission adopts higher PSD limits, the power in 1 MHz of the emission bandwidth could be the appropriate value for P, but if the Commission adopts lower PSD limits, then 2 MHz may be more appropriate. The Commission could allow licensees using the legacy ERP limits to apply in the formula

an aggregate ERP value for P that the station would use over a 1 MHz or 2 MHz reference bandwidth. Alternatively, should a separate formula be added to § 22.911 for use by those licensees that opt to use the PSD model in measuring their maximum ERP? If so, how should this formula be different from the current one?

67. The Commission seeks comment on the issues raised in the preceding paragraphs and invites suggestions as to any potential methods of addressing the contour calculation under § 22.911 so that applicants seeking to establish new Cellular systems or expand existing systems into Unserved Area are treated on par with one another regardless of the technology they choose. All suggestions and comments should include a thorough technical analysis and a demonstration of how the various technologies would be impacted. Given the specific provisions in § 22.911(a)(1) and (2), the Commission also seeks comment on whether any revisions to those provisions are warranted in the context of the proposal to permit use of a PSD model for Cellular licensees.

2. Domestic Coordination Requirements

68. Under § 22.907 of the Commission's rules, Cellular licensees are required to coordinate channel usage at each transmitter location within 121 kilometers (75 miles) of any transmitter locations that are authorized to other licensees or proposed (except those with mutually exclusive applications). In its companion R&O in this proceeding, the Commission did not change § 22.907, but the Commission now seeks comment in this FNPRM on whether, in the event the Commission adopts a revised § 22.913 to permit the use of a PSD model, the current coordination requirements under § 22.907 are sufficient, or whether they need to be enhanced. Is the coordination distance of 75 miles still adequate? Is there a need for channel coordination if licensees convert to wideband channels of 10 MHz? To the extent commenters argue that the current rule needs to be enhanced or otherwise revised, they should propose specific wording for the new/revised provisions of § 22.907 and explain in detail why the public interest would be served by such changes.

3. International Coordination Requirements

69. Cellular licensees are currently subject to three separate part 22 rules governing

coordination between the United States government and the governments of Canada and Mexico. The generic rule applicable to all Public Mobile Services licensees, § 22.169, states that channel assignments are "subject to the applicable provisions and requirements of treaties and other international agreements between the United States government and the governments of Canada and Mexico." The other two rules – §§ 22.955 and 22.957 – are in subpart H (Cellular Service-specific), and each sets forth the text of a condition that is to be placed on authorizations for all Cellular systems, requiring them to coordinate any transmitter installations within 72 kilometers (45 miles) of the U.S.-Canadian or U.S.-Mexican border, as applicable.

70. The Commission proposes to streamline the rules by eliminating §§ 22.955 and 22.957, preserving § 22.169 with a minor revision to add a reference to "operation of systems." This would advance our regulatory reform agenda by deleting unnecessary or redundant provisions. The Commission tentatively concludes that having the proposed single, slightly revised rule for all part 22 licensees is sufficient and consistent with the international coordination requirements set forth in other rule parts, such as in part 27 governing various flexible wireless services, for example, and seeks comment on this proposal.

4. Proposed Correction of Section 22.355 (Frequency tolerance)

71. The Commission proposes to correct a clerical error in the third column heading of the table in § 22.355 of our rules. The error was introduced inadvertently in the Federal Register when § 22.355 was revised in 1996. The proposed correction is included in Appendix B (Proposed Rules) of this FNPRM.

V. Procedural Matters

A. Paperwork Reduction Act Analysis

72. This FNPRM seeks comment on potential new and revised information collection requirements. If the Commission adopts new or revised information collection requirements, the Commission will publish a notice in the Federal Register inviting the public to comment on the requirement, as required by the Paperwork Reduction Act of 1995, Public Law 104-13 (44 U.S.C. 3501-

3520). In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), the Commission seeks specific comment on how it might further reduce the information collection burden for small business concerns with fewer than 25 employees.

B. Initial Regulatory Flexibility Analysis

73. As required by the RFA, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in the FNPRM. The analysis is found in Appendix D. The Commission requests written public comment on the analysis. Comments must be filed in accordance with the same deadlines as comments filed in response to the FNPRM, and must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this FNPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.

C. Ex Parte Presentations

74. Permit-But-Disclose. The Commission will continue to treat this proceeding as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules. Persons making presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be

filed consistent with rule § 1.1206(b). In proceedings governed by rule § 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the Commission's Electronic Comment Filing System ("ECFS") available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

D. Filing Requirements

75. Comments and Replies. Pursuant to §§ 1.415 and 1.419 of the Commission's rules, interested parties may file comments and reply comments concerning the FNPRM on or before the dates indicated on the first page of this document. **All filings related to this FNPRM should refer to WT Docket No. 12-40**. Comments may be filed using ECFS.

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://fjallfoss.fcc.gov/ecfs2/.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.
- Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
    - All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th Street, SW., Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW., Washington DC 20554.

76. People with Disabilities. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

77. Availability of Documents. Comments, reply comments, and *ex parte* submissions will be publically available online via ECFS.[1] These documents will also be available for public inspection during regular business hours in the FCC Reference Information Center, which is located in Room CY-A257 at FCC Headquarters, 445 12th Street, SW, Washington, DC 20554. The Reference Information Center is open to the public Monday through Thursday from 8:00 a.m. to 4:30 p.m. and Friday from 8:00 a.m. to 11:30 a.m.

78. Additional Information. For further information, contact Nina Shafran of the Wireless Telecommunications Bureau, Mobility Division, at (202) 418-2781, or by email: Nina.Shafran@fcc.gov.

VI. Ordering Clauses

79. Accordingly, IT IS ORDERED, pursuant to sections 1, 2, 4(i), 4(j), 7, 301, 302, 303, 307, 308, 309, and 332 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i), 154(j), 157, 301, 302, 303, 307, 308, 309, and 332, that this REPORT AND ORDER and this FURTHER NOTICE OF PROPOSED RULEMAKING in WT Docket No. 12-40 ARE ADOPTED.

80. IT IS FURTHER ORDERED that, pursuant to applicable procedures set forth in §§ 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments on the FURTHER NOTICE OF PROPOSED RULEMAKING on or before 30 days after publication in the

[1] Documents will generally be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

Federal Register and reply comments on or before 60 days after publication in the Federal Register.

81. IT IS FURTHER ORDERED that, pursuant to section 801(a)(1)(A) of the Congressional Review Act, 5 U.S.C. 801(a)(1)(A), the Commission SHALL SEND a copy of this FURTHER NOTICE OF PROPOSED RULEMAKING to Congress and to the Government Accountability Office.

82. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this FURTHER NOTICE OF PROPOSED RULEMAKING, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects

47 CFR Part 0

Organization and functions (Government agencies).

47 CFR Part 1

Reporting and recordkeeping requirements, Telecommunications.

47 CFR Part 22

Communications common carriers, Reporting and recordkeeping requirements.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch,
Secretary.

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR parts 0, 1, and 22 as follows:

PART 0 - COMMISSION ORGANIZATION

1. The authority citation for part 0 continues to read as follows:

Authority: Sec. 5, 48 Stat. 1068, as amended; 47 U.S.C. 155, 225, unless otherwise noted.

2. Section 0.401 is amended by revising the note to paragraph (b)(1) to read as follows:

§ 0.401 Location of Commission offices.

* * * * *

(b) * * *

(1) * * *

NOTE TO PARAGRAPH (b)(1): Wireless Telecommunications Bureau applications that require frequency coordination by certified coordinators must be submitted to the appropriate certified frequency coordinator before filing with the Commission. After coordination, the applications are filed with the Commission as set forth herein. (See §§ 22.985, 90.127 and 90.175 of this chapter.)

* * * * *

PART 1 – PRACTICE AND PROCEDURE

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

Authority: 15 U.S.C. 79 et seq.; 47 U.S.C. 151, 154(i), 154(j), 155, 157, 225, 227, 303(r), 309, 1403, 1404, 1451 and 1452.

4. Section 1.1204 is amended by revising paragraph (a)(7) to read as follows:

§ 1.1204 Exempt ex parte presentations and proceedings.

(a) * * *

(7) The presentation is between Commission staff and an advisory coordinating committee member with respect to the coordination of frequency assignments to stations in the private land mobile services, fixed services, or Cellular Radiotelephone Service as authorized by 47 U.S.C. 332;

* * * * *

PART 22 – PUBLIC MOBILE SERVICES

5. The authority citation for part 22 continues to read as follows:

   Authority: 47 U.S.C. 154, 222, 303, 309, and 332.

6. Section 22.99 is amended by revising the definition of "Cellular system" and adding definitions for "Frequency coordinator" and "Power spectral density", in alphabetical order, to read as follows:

§ 22.99 Definitions.

* * * * *

Cellular system. An automated high-capacity system of one or more base stations designed to provide radio telecommunication services to mobile stations over a wide area in a spectrally efficient manner. Cellular systems employ techniques such as low transmitting power and automatic hand-off between base stations of communications in progress to enable channels to be reused at relatively short distances.

* * * * *

Frequency coordinator. In the Cellular Radiotelephone Service, a person or organization certified by the FCC to review applications submitted by applicants, including any exhibits and electronic maps, to ensure that the applications are in compliance with all rules applicable to the Cellular Service. See § 22.985.

* * * * *

Power spectral density (PSD). The power of an emission in a frequency domain, such as ERP or EIRP, stated per unit bandwidth, e.g., watts/MHz.

* * * * *

7. Section 22.169 is revised to read as follows:

§ 22.169 International coordination.

Operation of systems and channel assignments under this part are subject to the applicable provisions and requirements of treaties and other international agreements between the United States government and the governments of Canada and Mexico.

8. Section 22.317 is revised to read as follows:

§ 22.317 Discontinuance of station operation.

If the operation of a Public Mobile Services station is permanently discontinued, the licensee shall send authorization for cancellation by electronic filing via the ULS on FCC Form 601. For purposes of this section, any station that has not provided service to subscribers for 90 continuous days is considered to have been permanently discontinued, unless the applicant notified the FCC otherwise prior to the end of the 90 day period and provided a date on which operation will resume, which date must not be in excess of 30 additional days. This section does not apply to the Cellular Radiotelephone Service (see § 22.947).

9. Section 22.355 is amended by revising Table C-1 to read as follows:

§ 22.355 Frequency tolerance.

* * * * *

Table C-1—Frequency Tolerance for Transmitters in the Public Mobile Services

Frequency range (MHz)	**Base, fixed (ppm)**	**Mobile > 3 watts (ppm)**	**Mobile ≤ 3 watts (ppm)**
25 to 50	20.0	20.0	50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929	5.0	n/a	n/a

929 to 960	1.5	n/a	n/a
2110 to 2220	10.0	n/a	n/a

10. Section 22.913 is revised to read as follows:

§ 22.913 Effective radiated power limits.

Subject to § 22.169, the effective radiated power (ERP) of transmitters in the Cellular Radiotelephone Service must not exceed the limits in this section.

(a) Maximum ERP. The effective radiated power (ERP) in the Cellular Radiotelephone Service must not exceed the following limits:

(1) The ERP of base transmitters and Cellular repeaters must not exceed 500 watts per authorized bandwidth or XXX watts/MHz.

(2) For Cellular systems operating in areas more than 72 kilometers (45 miles) from international borders that are located in counties with population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census, or that extend coverage into Unserved Area (see § 22.949), the ERP of base transmitters and Cellular repeaters must not exceed 1000 watts per authorized bandwidth or XXX watts/MHz.

(3) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

(b) Power measurement. The ERP limits set forth in paragraph (a) of this section must be measured in terms of average power over a resolution bandwidth of 100 kHz or greater.

(c) [Reserved]

(d) Height-power limit. The ERP of base transmitters must not exceed the amount that would result in an average distance to the service area boundary of 79.1 kilometers (49 miles) for Cellular systems authorized to serve the Gulf of Mexico Service Area and 40.2 kilometers (25 miles) for all other Cellular systems. The average distance to the service area boundary is calculated by taking the

arithmetic mean of the distances determined using the procedures specified in § 22.911 for the eight cardinal radial directions.

(e) Coordination exemption. Licensees need not comply with the height-power limit in paragraph (d) of this section if the proposed operation is coordinated with the licensees of all affected Cellular systems on the same channel block within 121 kilometers (75 miles) and concurrence is obtained.

11. Add § 22.947 to read as follows:

§ 22.947 Discontinuance of service.

(a) Termination of authorization. (1) Except with respect to CMA672-A (see paragraph (a)(2) of this section), a licensee's Cellular Geographic Service Area authorization will automatically terminate, without specific Commission action, if the licensee permanently discontinues service after expiration of the construction period specified in § 22.946.

(2) CMA672-A (Chambers, TX). The licensee's authorization for CMA672-A will automatically terminate, without specific Commission action, if the licensee permanently discontinues service after meeting its interim construction requirement as specified in § 22.961(b)(1).

(b) Permanent discontinuance. Permanent discontinuance of service is defined as 180 consecutive days during which a licensee does not operate or, in the case of a commercial mobile radio service provider, does not provide service to at least one subscriber that is not affiliated with, controlled by, or related to the providing carrier.

(c) Filing requirements. A licensee that permanently discontinues service as defined in this section must notify the Commission of the discontinuance within 10 days by filing, via the ULS, FCC Form 601 requesting license cancellation. An authorization will automatically terminate, without specific Commission action, if service is permanently discontinued as defined in this section, even if a licensee fails to file the required form requesting license cancellation.

§§ 22.955 and 22.957 [Removed and Reserved]

12. Remove and Reserve §§ 22.955 and 22.957.

13. Add § 22.985 to subpart H to read as follows:

§ 22.985 Frequency coordination.

(a) A frequency coordinator in the Cellular Radiotelephone Service shall perform the following functions:

(1) Review applications (including all exhibits and attachments) listed in paragraph (c) of this section for compliance with all rules applicable to the Cellular Service.

(2) If, in the coordinator's assessment, an application is not in compliance with applicable rules, the coordinator shall notify the applicant about the noncompliance. The applicant may then correct the application and resubmit the application to the coordinator for review.

(3) If, in the coordinator's assessment, an application is in compliance with all applicable rules, the coordinator shall submit the application to the Commission for processing. The coordinator shall also submit along with the application a statement that indicates the application is compliant with all applicable rules and recommends that the FCC grant the application.

(b) The functions and recommendations of a frequency coordinator under this section are advisory in nature for the applicant and the Commission, and its recommendations are not binding upon either the applicant or the Commission. If there is a disagreement between an applicant and a coordinator regarding the coordinator's recommendation, the coordinator and applicant are jointly responsible for taking action to resolve the disagreement, up to and including notifying the Commission that the disagreement cannot be resolved. In the event of such an irresolvable dispute, the applicant may direct the reviewing coordinator to submit the application to the Commission without the coordinator's recommendation. Such an application should indicate that the applicant sought frequency coordination and be accompanied by a statement from the coordinator explaining its reasons for not recommending the proposed operations. The affected

applicant shall bear the burden of proceeding and the burden of proof in requesting that the Commission overturn a coordinator's recommendation.

(c) An applicant that files any of the following types of applications must first submit them to a certified frequency coordinator in the Cellular Service for review:

(1) A major modification application claiming at least 130 square kilometers (50 contiguous square miles) of Unserved Area as Cellular Geographic Service Area (CGSA);

(2) An application seeking authorization for a new Cellular system; and

(3) Any other application when submitted together with an application type that is listed in paragraph (c)(1) or (2) of this section.

(d) Within one business day of making a recommendation, a frequency coordinator must notify and provide the information listed in paragraph (e) of this section to all other coordinators who are certified to review Cellular applications. A coordinator that does not make any recommendations regarding Cellular applications on a given day must notify all other certified coordinators for the Cellular Service of such fact. A notification under this paragraph (d) of this section must be made to all the other certified coordinators at approximately the same time and can be made using any method that ensures compliance with this same-business-day requirement.

(e) At a minimum, the following information must be included in each notification that is required under paragraph (d) of this section:

(1) Name of the applicant;

(2) The type of application under paragraph (c) of this section;

(3) CMA designator(s) pertaining to where the applicant is expanding its CGSA or starting a new system;

(4) For an application type under paragraph (c)(1) of this section, the license (call sign) at issue, and the CMA description and channel block;

(5) New or modified transmitter location(s) along with coordinates and antenna height;

(6) Effective radiated power (ERP), antenna center of radiation height above average terrain (HAAT), height above sea level (HASL) or height above mean sea level (HAMSL) and distance to the SAB and to the CGSA for the eight radials of each new/modified location; and

(7) Date and time of the recommendation.

(f) Upon request, each frequency coordinator for the Cellular Service must provide any additional information requested by another certified coordinator regarding a Cellular application already reviewed by the coordinator but still pending before the Commission.

(g) It is the responsibility of each frequency coordinator to ensure that its recommendations do not conflict with the recommendations of any other certified coordinator for the Cellular Service. Should a conflict arise, the affected coordinators are jointly responsible for taking action to resolve the conflict, up to and including notifying the Commission that an application may have to be returned.

[FR Doc. 2014-29848 Filed 12/19/2014 at 8:45 am; Publication Date: 12/22/2014]