

FCC FACT SHEET*

**Amendment of the Commission's Rules Governing Standards
For Hearing Aid-Compatible Handsets**

Notice of Proposed Rulemaking
WT Docket No. 20-3

Background: The Commission's hearing aid compatibility rules ensure that tens of millions of Americans with hearing loss have access to the same types of technologically advanced wireless handsets as those without hearing loss. Both manufacturers and service providers are required to make available handsets that meet specified technical criteria for hearing aid compatibility. The Commission's current rules are based on a 2011 standards document from the American National Standards Institute (ANSI), rather than on new technical specifications that ANSI adopted in 2019. In order to ensure that our hearing aid compatibility requirements fully satisfy their purpose and reflect technological advances, this Notice of Proposed Rulemaking would initiate a proceeding to incorporate the 2019 ANSI Standard into the Commission's rules.

What the Notice Would Do:

- Propose to require use of the 2019 ANSI Standard for evaluating hearing aid compatibility after a two-year transition period and extend the Commission's current volume control deadline to coincide with the start of exclusive use of the 2019 standard.
- Propose that new handset models can be tested for certification using either the 2011 or 2019 ANSI Standards during the transition period.
- Propose to update and streamline the Commission's hearing aid compatibility labeling requirements so that consumers will have the information they need to understand and evaluate the hearing aid compatibility of a handset.
- Propose to remove unnecessary or superseded rule provisions and seek comment on ways to simplify and update the hearing aid compatibility rules.

* This document is being released as part of a "permit-but-disclose" proceeding. Any presentations or views on the subject expressed to the Commission or its staff, including by email, must be filed in WT Docket No. 20-3, which may be accessed via the Electronic Comment Filing System (<https://www.fcc.gov/ecfs/>). Before filing, participants should familiarize themselves with the Commission's *ex parte* rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission's meeting. See 47 CFR § 1.1200 *et seq.*

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

Table with 2 columns: Matter description and Docket No. Includes items like 'Amendment of the Commission’s Rules Governing Standards for Hearing Aid-Compatible Handsets' and 'WT Docket No. 20-3'.

NOTICE OF PROPOSED RULEMAKING*

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By the Commission:

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*This document has been circulated for tentative consideration by the Commission at its January 30, 2020, open meeting. The issues referenced in this document and the Commission’s ultimate resolution of those issues remain under consideration and subject to changes.

I. INTRODUCTION

1. The Commission's hearing aid compatibility rules ensure that the millions of Americans with hearing loss have access to the same types of technologically advanced wireless handsets as those without hearing loss. Both manufacturers and service providers are required to make available handsets that meet specified technical criteria for hearing aid compatibility. Our current rules, however, are based on a now outdated 2011 standards document from the American National Standards Institute (ANSI),¹ rather than on new technical specifications that ANSI adopted in 2019.² In order to ensure that our hearing aid compatibility requirements fully satisfy their purpose and reflect technological advances, we propose to incorporate the new standard into our rules.

II. BACKGROUND

2. The Commission's rules require both device manufacturers and service providers to offer consumers a minimum number of hearing aid-compatible wireless handset models that meet specified technical standards for compatibility with different types of hearing aids.³ A minimum number of compliant handset models must be offered for each "air interface" based on the total number of handset models offered by a manufacturer or service provider.⁴ Subject to a *de minimis* exception, device manufacturers are currently required to ensure that 66% of their handsets are hearing aid-compatible, with that minimum increasing to 85% on October 21, 2021.⁵ Likewise, national wireless carriers are currently required to ensure that 66% of their handset models are hearing aid-compatible, with that minimum increasing to 85% on April 4, 2022.⁶ The Commission has stated that it will decide by 2024 whether to require that 100% of handsets be hearing aid-compatible.⁷

3. In addition, in October 2017, the Commission began phasing in a volume control requirement designed to accommodate all people with hearing loss, not just those with hearing aids.⁸

¹ 47 CFR § 20.19(b).

² See Accredited Standards Committee C63® – Electromagnetic Compatibility, *American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2019 (2019 ANSI Standard). The standard is available for purchase from IEEE Operations Center, 445 Hoes Lane, Piscataway, NJ 08854-4141, by calling (732) 981-0060, or going to <https://standards.ieee.org/>. A copy of the standard is also available for inspection at the Federal Communications Commission (FCC), 445 12th St., SW., Reference Information Center, Room CY-A257, Washington, DC 20554.

³ 47 CFR § 20.19(c)-(d).

⁴ "Air interface" refers to the technology that ensures compatibility between mobile radio service equipment, such as handsets, and a service provider's base stations. *Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, Third Report and Order, 27 FCC Rcd 3732, 3733, para. 3 & n.2 (WTB/OET 2012) (*WTB/OET Report and Order*). Examples of air interfaces include: GSM, CDMA, LTE, Wi-Fi, etc. See generally 2019 ANSI Standard at 21-23.

⁵ 47 CFR § 20.19(c)(1)(i)(C)-(D), (d)(1)(ii)(D)-(E). The *de minimis* exception applies to manufacturers and service providers that offer five or fewer handset models in an air interface and reduces their obligations with respect to the hearing aid compatibility requirements. 47 CFR § 20.19(e).

⁶ 47 CFR § 20.19(c)(1)(i)(c)-(d), (d)(1)(ii)(D)-(E). For wireless carriers that do not offer service nationwide, 66% of handsets must be hearing aid-compatible by April 3, 2020, with the minimum increasing to 85% by April 3, 2023. 47 CFR § 20.19(c)(3)(iii)-(iv), (d)(3)(iii)-(iv).

⁷ *Improvements to Benchmarks and Related Requirements Governing Hearing Aid Compatible Mobile Handsets*, WT Docket No. 15-285, Report and Order, 31 FCC Rcd 9336, 9349, para. 34 (2016) (*Revised Benchmark Order*).

⁸ *Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, Report and Order and Order on Reconsideration, 32 FCC Rcd 9063, 9081, para. 35 (2017) (*Volume Control Order*).

Beginning on March 1, 2021, manufacturers are required to ensure that wireless handsets are “equipped with volume control that produces sound levels suitable for persons with hearing loss (including persons with and without hearing aids).”⁹

4. The Commission’s hearing aid compatibility rules currently use a 2011 version of ANSI’s hearing aid compatibility standard (2011 ANSI Standard) to determine if a handset is hearing aid-compatible.¹⁰ The 2011 ANSI Standard specifies testing procedures for determining the ratings of digital wireless handsets that operate over frequencies in the 698 MHz to 6 GHz bands.¹¹ This standard evaluates how hearing aid compatibility is determined between wireless handsets and hearing aids that use acoustic or inductive coupling,¹² including cochlear implants.¹³

5. The ANSI Committee has asked the Commission to incorporate the recently-adopted 2019 ANSI Standard into our wireless hearing aid compatibility rules.¹⁴ This standard revises how hearing aid compatibility is determined between wireless handsets and hearing aids and, for the first time, requires handsets to meet a volume control requirement in order to be considered hearing aid-compatible under that standard.¹⁵ The new standard specifies testing procedures for new technologies and devices

⁹ 47 CFR § 20.19(b)(1). The Commission set this compliance deadline to provide manufacturers a transition period for finalizing and codifying the technical parameters of a volume control standard. *Volume Control Order*, 32 FCC Rcd at 9080-81, paras. 34-35.

¹⁰ 47 CFR § 20.19(b).

¹¹ 47 CFR § 20.19(a).

¹² Hearing aids operating in acoustic coupling mode receive through a microphone and then amplify all sounds surrounding the user, including both desired sounds, such as a telephone’s audio signal, and unwanted ambient noise. To use a wireless handset with a hearing aid or cochlear implant in acoustic coupling mode, RF interference and other electromagnetic interference from the handset must be controlled. Hearing aids operating in inductive coupling mode turn off their microphone to avoid amplifying unwanted ambient noise, instead using a telecoil to receive only audio signal-based magnetic fields generated by inductive coupling-capable telephones. The hearing aid converts these fields back to sound or to a signal appropriate for cochlear implant users. The 2011 ANSI Standard rates hearing aid compatibility for acoustic coupling based on a scale of M1 to M4, where M3 is passing under the Commission’s rules, and on a scale of T1 to T4 for inductive coupling, where T3 is passing under the Commission’s rules. 47 CFR § 20.19(b); *see generally* Accredited Standards Committee C63® – Electromagnetic Compatibility, *American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2011 (May 27, 2011).

¹³ Since users of cochlear implants generally will be affected by our proposed rule changes to the same extent as users of hearing aids, references hereinafter to “hearing aids” or “hearing aid users” also refer to “cochlear implants” or “users of cochlear implants.” *See Volume Control Order*, 32 FCC Rcd at 9064, para 2 & n.3. A cochlear implant converts signals from the handset into electrical signals that are sent to the cochlea, which stimulate the cochlear nerve, causing it to send signals to the brain that are interpreted as sound. *Id.*

¹⁴ *See* Report and Petition of American National Standards Institute Accredited Standards Committee C63®, CG Docket No. 13-46, WT Docket Nos. 07-250, 10-254, at 1 (filed Sept. 23, 2019), <https://ecfsapi.fcc.gov/file/10923530915563/ANSI%20C63%20Petition%20to%20FCC%20-%20190923.pdf> (ANSI Report and Petition). The ANSI Committee is the accredited standards development organization whose working group, C63.19, is responsible for developing and maintaining ANSI C63.19—the wireless hearing aid compatibility standard. ANSI, Introduction to ANSI, https://www.ansi.org/about_ansi/introduction/introduction.aspx?menuid=1 (last visited Sept. 26, 2019). We choose to address ANSI’s petition in a new docket and to close the dockets that were used for incorporation of earlier standards to simplify commenting and eliminate redundancy. Commenters should submit all information that they wish the Commission to consider into the new docket.

¹⁵ ANSI Report and Petition at 3-10. The ANSI Committee states that “[a]dding volume control requirements was an important addition to the standard.” *Id.* at 5. The ANSI Committee determined that there was no need to create a

(continued....)

operating in the frequency range of 614 MHz to 6 GHz and replaces the present numerical M/T rating system with a simple set of requirements and thresholds.¹⁶ As a result of these changes, the new standard will improve the experience of hearing aid users, including those who use cochlear implants, while at the same time reducing testing burdens.¹⁷

III. DISCUSSION

6. In this Notice of Proposed Rulemaking, we propose to incorporate the 2019 ANSI Standard into our rules and to make it the exclusive testing standard for determining hearing aid compatibility after a two-year transition. In addition, we propose to extend the current volume control deadline so that the requirement coincides with the start of the exclusive use of the 2019 ANSI Standard. Finally, we propose to remove unnecessary or superseded rule provisions and seek comment on ways to simplify and update the hearing aid compatibility rules.

A. Codification of the 2019 ANSI Standard

7. Consistent with past practice, we propose to incorporate the 2019 ANSI Standard into our rules as the exclusive technical standard for evaluating the hearing aid compatibility of wireless handsets. The Commission has long recognized that its hearing aid compatibility rules should evolve as revisions to ANSI standards are developed over time.¹⁸ To this end, the Commission has encouraged the ANSI Committee to periodically work with relevant stakeholders to review hearing aid compatibility issues and determine whether improvements to the standard are warranted.¹⁹ Accordingly, we propose to amend our rules to use the 2019 ANSI Standard as the exclusive standard for determining hearing aid compatibility after the expiration of a two-year transition period. After the expiration of the transition period, new handsets models would have to be certified under this standard as hearing aid-compatible in order for manufacturers and service providers to use these new handsets to meet their handset deployment requirements.

8. We anticipate that using the 2019 ANSI Standard to determine whether a handset is hearing aid-compatible for purposes of our rules will serve the public interest by establishing standards for new devices and operations over additional frequency bands. The 2019 ANSI Standard includes volume control metrics for the first time, and covers newer technologies and devices operating in the frequency range of 614 MHz to 6 GHz, as compared to the 2011 ANSI Standard's frequency range of 698 MHz to 6 GHz.²⁰ New testing methodologies in the 2019 ANSI Standard should also improve the measurement of potential hearing aid interference. The new standard no longer uses the M/T category

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volume control standard for wireless handsets that is different from the standard used for landline phones and, as a result, incorporated the existing landline volume control standard, ANSI/TIA-5050, into its new wireless handset standard. *Id.* at 5-6.

¹⁶ The 2011 ANSI Standard rates hearing aid compatibility based on a scale of M1 to M4 for acoustic coupling, where M3 is passing, and on a scale of T1 to T4 for inductive coupling, where T3 is passing. 47 CFR § 20.19(b)(1)(2). The 2019 ANSI Standard no longer uses this dual rating system and applies a single set of requirements to test for hearing aid-compatibility. In addition to making changes in testing procedures, it also harmonizes the 2019 ANSI Standard with the IEC 60118-13 standard (Electroacoustics - Hearing aids - Part 13: Electromagnetic compatibility (EMC)). ANSI Report and Petition at 4-8.

¹⁷ ANSI Report and Petition at 3-4 & n.3.

¹⁸ See, e.g., *Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones*, WT Docket No. 01-309, Report and Order, 18 FCC Rcd 16753, 16799, paras. 62-63 (2003), Erratum, 18 FCC Rcd 18047 (2003) (2003 Report and Order).

¹⁹ See, e.g., *WTB/OET Report and Order*, 27 FCC Rcd at 3733, para. 2.

²⁰ ANSI Report and Petition at 7-8.

system, achieves harmonization with hearing aid standards that apply to other types of equipment, and changes several testing procedures meant to improve the consumer experience and reduce testing burdens.²¹

9. If we adopt the 2019 ANSI Standard, we propose to treat handsets operating over multiple frequency bands or air interfaces in the same manner as under our current rules.²² That is, a handset operating only in the ranges specified in the 2019 ANSI Standard would be required to satisfy that standard for all frequency bands and air interfaces over which it operates. But if a handset also operates in frequency ranges not addressed by the 2019 ANSI Standard, it would be considered hearing aid-compatible as long as it satisfies the 2019 ANSI Standard for those frequencies covered by the standard.

10. We seek comment on our proposal to adopt the 2019 ANSI Standard. Do commenters agree that the new standard is consistent with the requirement that handsets “produce sound levels suitable for persons with hearing loss (including persons with and without hearing aids),”²³ would improve the measurement of potential hearing aid interference, and would reduce the testing burden? Would adoption of the standard impose costs on manufacturers or service providers that are reasonable in light of its benefits?

11. We recognize that the 2019 ANSI Standard does not cover frequencies above 6 GHz, as the higher millimeter wave frequencies were not commonly used in mobile handsets at the time the standard was being developed. We therefore take this opportunity to fulfill our statutory obligation to assess whether to continue to exempt handsets operating in frequencies above 6 GHz from the statutory hearing aid compatibility requirements.²⁴ Section 710 of the Communications Act exempts “telephones used with public mobile services” from the hearing aid compatibility requirements but directs the Commission to assess periodically the “appropriateness of continuing in effect” those exemptions.²⁵ The Commission has partially revoked the statutory exemption for wireless handsets operating below 6 GHz, but has not had occasion to assess the exemption recently for handsets operating above 6 GHz.²⁶ Accordingly, we seek comment generally on whether to continue to exempt handsets operating with frequencies above 6 GHz from the hearing aid compatibility requirements. What is the effect, if any, on hearing aid users from mobile handset operations in the mmW frequencies? What is the impact on hearing-impaired individuals of excluding frequencies above 6 GHz from the compatibility requirements?²⁷ As a practical matter, do higher frequencies pose the same interference concerns as the lower frequencies for hearing aids? Is compliance with the hearing aid compatibility standards technologically feasible for devices operating over 6 GHz?²⁸ What would be the additional cost of testing

²¹ *Id.* at 3-9. The revised standard eliminates testing requirements in many cases in which the device’s power levels are below certain thresholds based on the frequency of the air-interface. The standard replaces the categorization of the handsets based on a range of limits and creates thresholds based on frequencies and device power levels to demonstrate compliance with the hearing aid compatibility requirements. The thresholds established in the standard are based on the minimum levels defined for the previous M3 and T3 categories with some adjustments for the changes in test procedures. The 2019 ANSI Standard achieves harmonization with corresponding hearing aid standards, IEC 60118-13 and IEC 60601-2-66. *Id.* at 5.

²² 47 CFR § 20.19(b)(3)(i).

²³ 47 CFR § 20.19(b)(1).

²⁴ 47 U.S.C. § 610(b)(2)(A)(B).

²⁵ 47 U.S.C. § 610(b)(2)(B).

²⁶ *See, e.g., 2003 Report and Order*, 18 FCC Rcd 16753.

²⁷ *See* 47 U.S.C. § 610(b)(2)(B)(ii).

²⁸ *See* 47 U.S.C. § 610(b)(2)(B)(iii).

in higher frequencies used by 5G? Would these additional costs limit innovation for handsets operating in the higher frequencies?

B. Transition Period

12. In its filing, the ANSI Committee urges the Commission to adopt an “appropriate” transition period for implementing the new standard, but it does not recommend a particular length of time.²⁹ We agree that manufacturers and service providers will likely require some transition period in order to design, manufacture, and market equipment that satisfies the 2019 ANSI Standard for hearing aid compatibility, and we seek comment on how much time is reasonably needed. We propose to phase out the 2011 ANSI Standard over a transition period of two (2) years from the date the order adopting the 2019 ANSI Standard is published in the Federal Register. The Commission used a two-year transition period before making the 2007 ANSI Standard the exclusive testing standard for hearing aid compatibility and a two-year transition period before requiring the 2011 ANSI Standard be used for meeting hearing aid compatibility requirements for newly covered frequency bands and air interfaces that were not covered by the 2007 ANSI Standard.³⁰ We propose a similar two-year transition period to appropriately balance the design, engineering, and marketing requirements of manufacturers and service providers with the needs of consumers with hearing loss.³¹

13. In assessing our proposed two-year transition period, we seek comment on the steps manufacturers must take to implement the 2019 ANSI Standard and their implications for the length of the transition period. What is the scope and timeline of the design changes necessary to incorporate the 2019 ANSI Standard into future handsets? Commenters should consider manufacturers’ product fabrication cycles and the practicality of testing multi-band or multi-mode handsets in the near-term under the 2019 ANSI Standard. Are there multi-band or multi-mode handsets planned for near-term introduction that meet the hearing aid compatibility criteria for their operations covered under the 2011 ANSI Standard but do not meet those criteria for newly covered operations or revised testing procedures under the 2019 ANSI Standard? What, if any, obstacles do manufacturers anticipate facing? Given the clear public interest in moving quickly to make advanced technology available to those with hearing loss, we urge any commenters proposing a transition of longer than two years to provide specific information about why more time is needed.

14. We further seek comment on the effect our proposed transition period likely will have on the Commission’s ability to decide by 2024 whether to require 100% of covered handsets to be hearing aid-compatible.³² Does a two-year transition period encourage manufacturers to increase the number of hearing aid-compatible handsets they produce or help them eventually achieve 100% hearing aid-compatibility? Or would the design changes required by the 2019 ANSI Standard negatively affect the ability of device manufacturers to meet any requirement the Commission may determine to impose that all covered handsets be hearing aid-compatible by a certain date in the future? Are there any issues related to the pending 100% proceeding that the Commission should consider with respect to making the 2019 ANSI Standard the exclusive testing standard going forward? Commenters should fully explain any relationship between the adoption of the 2019 ANSI Standard as the exclusive testing standard and the

²⁹ ANSI Report and Petition at 1.

³⁰ *Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, First Report and Order, 23 FCC Rcd 3406, 3440, para. 83 (2008); *WTB/OET Report and Order*, 27 FCC Rcd at 3741, para. 22. In the *Volume Control Order*, the Commission eliminated the use of the 2007 ANSI Standard and made the 2011 ANSI Standard the exclusive standard for determining hearing aid compatibility. *Volume Control Order*, 32 FCC Rcd at 9083-85, paras 42-46.

³¹ *Volume Control Order*, 32 FCC Rcd at 9080-81, para 34 & n.137.

³² See *Revised Benchmark Order*, 31 FCC Rcd at 9349, para. 34.

potential requirement for 100% of handsets to be hearing aid-compatible.

15. Although we propose to allow a two-year transition period before requiring exclusive use of the 2019 ANSI Standard, including its volume control requirements, we note that manufacturers currently have a deadline in less than a year-and-a-half to ensure that wireless handsets are “equipped with volume control that produces sound levels suitable for persons with hearing loss (including persons with and without hearing aids).”³³ We propose to extend this volume control deadline so that it coincides with the start of the exclusive use of the 2019 ANSI Standard. We seek comment on this proposal. Would retaining disparate deadlines for volume control and exclusive use of the 2019 ANSI Standard effectively require manufacturers to develop new handsets to meet the volume control deadline and then develop a new batch of handsets to satisfy the 2019 standard? Commenters should be specific about the costs and benefits of their proposed approach.

16. Consistent with past transitions to new standards, we propose permitting new handset models to be tested for certification using *either* the 2011 or 2019 ANSI Standards during the transition period.³⁴ Consistent with the 1988 Hearing Aid Compatibility Act and the current rules, we propose that all existing hearing aid compatibility certifications issued prior to and within the transition period, including certifications under the 2011 ANSI Standard as well as any earlier versions of the standard, would remain valid.³⁵ As a result, no existing handset models would need to be retested or recertified as hearing aid-compatible. We seek comment on this approach.

17. We note that the Commission’s existing handset certification procedures do not permit a handset model to be tested and certified partly under one version of the ANSI standard and partly under another.³⁶ The Commission has taken this approach because each ANSI standard has its own complete set of testing procedures and mixing these procedures will result in a meaningless outcome. Consistent with this long-established certification practice, we propose that manufacturers continue to be required to test a new handset model exclusively under either the 2011 ANSI Standard or the 2019 ANSI Standard during the transition period. After the end of the transition period, we propose that new handset models be required to satisfy fully the 2019 ANSI Standard, including its volume control requirements, for all of

³³ 47 CFR § 20.19(b)(1).

³⁴ *Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, Second Further Notice of Proposed Rulemaking, 26 FCC Rcd 14991, 14994, para. 7 (WTB/OET 2011).

³⁵ Hearing Aid Compatibility Act of 1988, Pub. L. No. 100-394, 102 Stat 976 (codified as amended at 47 U.S.C. § 610) (1988 Hearing Aid Compatibility Act). While handset models certified as hearing aid-compatible under the 2011 ANSI Standard or an earlier standard would continue to be considered hearing aid-compatible, if a handset certified as hearing aid-compatible under an outdated standard is later submitted for a Class II permissive change, as defined in 47 CFR § 2.1043(b), after the end of the transition period, we propose to continue our past practice of requiring such modified handsets to meet the 2019 ANSI Standard so that these handsets are updated to meet the new standard.

³⁶ *Wireless Telecommunications Bureau and Office of Engineering and Technology Clarify Use of Revised Wireless Phone Hearing Aid Compatibility Standard*, Public Notice, 21 FCC Rcd 6384, 6385 (WTB/OET 2006) (“Applicants for certification may rely on only one version of the ANSI C63.19 standard, 2001, 2005 or 2006, and must identify which version they are using for compatibility testing and for rating wireless phones, consistent with 47 C.F.R. § 2.947(b).”); *Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, First Report and Order, 23 FCC Rcd 3406, 3439, para. 82 (2008) (“[A] party can use either the 2006 or 2007 standard for new certifications through 2009, but must use a single version for all certification tests and criteria for both the M and T ratings with respect to a given device.”); *WTB/OET Report and Order*, 27 FCC Rcd at 3736, para. 11 (“Consistent with existing rules that do not permit a handset model to be certified partly under one version of the ANSI Standard and partly under another, manufacturers must test each new handset model either exclusively under the 2007 ANSI Standard or exclusively under the 2011 ANSI Standard . . .”).

the frequency bands covered by the standard to be considered hearing aid-compatible.³⁷ We seek comment on this proposal.

C. Meeting Deployment Benchmarks

18. Subject to a *de minimis* exception, handset manufacturers and service providers must offer minimum numbers of hearing aid-compatible handset models for each covered air interface over which its handsets operate.³⁸ Depending on the type and size of an entity and the point in time, manufacturers and providers will need to ensure that either 66 or 85% of their handset models are hearing aid-compatible.³⁹ Under the 2011 ANSI Standard, this means that a handset must be rated M3 or higher and T3 or higher for any given air interface.⁴⁰ With respect to the 2019 ANSI Standard, for the handset to be hearing aid-compatible over a covered air interface, the handset must meet the requirements for both acoustic and inductive coupling modes for that air interface, including the volume control requirements.⁴¹

19. If we adopt the 2019 ANSI Standard going forward, we propose to allow manufacturers and service providers to meet the requirement to offer minimum numbers of hearing aid-compatible handsets by counting the models certified under the 2019 ANSI Standard and handset models already certified under earlier versions of the standard (i.e., the 2007 and 2011 versions of the standard) as long as those models are still being offered for sale. As more and more handset models become certified under the 2019 ANSI Standard, we expect that handset models certified under older versions of the ANSI standard will cease being offered for sale and will be replaced with new models certified under the 2019 ANSI Standard. Manufacturers and national wireless providers are already required to ensure that 66% of the handsets they offer are hearing aid-compatible, and we expect handsets meeting the 2019 ANSI Standard to be common within a few years after the end of the transition period. We also note that, while manufacturers would not be required to certify their new handset models under the 2019 ANSI Standard during the transition period in order to meet their minimum deployment benchmarks, they may find using the 2019 standard advantageous from a marketing perspective. We seek comment on this proposal. What are the costs and benefits to device manufacturers, service providers, and consumers with hearing loss of allowing handsets certified under previous ANSI standards to count toward the minimum number of hearing aid-compatible handsets that must be offered? Are there reasons to impose new requirements on manufacturers and service providers to offer minimum numbers of handsets certified to comply with the 2019 ANSI Standard?

D. Labeling Requirements

20. We propose to update and modernize our hearing aid compatibility labeling requirements in order to eliminate outdated provisions and to streamline and clarify these requirements. The 1988 Hearing Aid Compatibility Act provides that the Commission “shall establish...requirements for the labeling of packaging materials...to provide adequate information to consumers on the compatibility between telephones and hearing aids.”⁴² This Congressional directive requires us to ensure that consumers have sufficient information to make an informed decision when selecting hearing aid-

³⁷ See 47 CFR § 20.19(b) (general rule that handset must meet hearing aid compatibility technical standards for all of its operations in order to be considered hearing aid-compatible for any of its operations).

³⁸ 47 CFR § 20.19(c)-(d), (e).

³⁹ 47 CFR § 20.19(c)-(d).

⁴⁰ 47 CFR § 20.19(b)(1)-(2).

⁴¹ The compliance requirements are intended to be equivalent to the M3 and T3 levels, with some adjustments. ANSI Report and Petition at 5-6. In order for a handset to be hearing aid-compatible, it must also meet the 2019 ANSI Standard for volume control. *Id.* at 6-7.

⁴² 47 U.S.C. § 610(d).

compatible handsets.⁴³ Given this directive, we propose to simplify our current hearing aid compatibility labeling requirements so that consumers will have the easily understandable information they need in order to understand and evaluate the hearing aid compatibility of a particular handset. In making this proposal, we are mindful that our labeling requirements must not only cover new handset models certified under the 2019 ANSI Standard but also cover handset models that are still being offered for sale and that have been certified as hearing aid-compatible under older versions of the ANSI standard.

21. Our current labeling requirements are composed of four parts.⁴⁴ The first requires manufacturers and service providers to ensure that a label on the exterior packaging of a wireless handset indicates the M- and T-rating of the handset model under the 2011 ANSI Standard.⁴⁵ Under the 2019 ANSI Standard, however, this information would no longer be relevant because the new standard does not use a rating system. The second part requires manufacturers and service providers to display information on the handset's volume control capabilities.⁴⁶ The third part establishes labeling requirements related to handsets that are considered hearing aid-compatible with respect to some, but not all of their frequency bands and air interfaces.⁴⁷ The fourth part imposes disclosure requirements relating to handsets that allow users to reduce the maximum power for GSM operation in the 1900 MHz band.⁴⁸ This power down exception was eliminated when the Commission adopted the 2011 ANSI Standard as the exclusive testing standard.⁴⁹

22. With the objectives of modernizing and streamlining our rules, we propose to reorganize our existing hearing aid compatibility labeling requirements by requiring the following:

- (1) For all handset models certified to be hearing aid-compatible, manufacturers and service providers shall disclose to consumers through clear and effective means (e.g., inclusion of packaging materials, user manuals, call-out cards or other physical media):
 - (i) that the handset is hearing aid-compatible (including placing this information on the handset's packaging label);
 - (ii) the air interfaces on the handset that are not hearing aid-compatible, if applicable, or have been determined to be hearing aid-compatible under special testing circumstances;
 - (iii) the ANSI standard that was used to determine the hearing aid compatibility of the handset model's air interfaces; and
 - (iv) if using the 2011 ANSI standard or earlier, the lowest hearing aid compatibility rating assigned to any of the air interfaces.
- (2) Any handset model certified to be hearing aid-compatible but with one or more air interfaces that are not hearing aid-compatible must include the following language:

This phone has been tested and certified for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear

⁴³ *Volume Control Order*, 32 FCC Rcd at 9081, para. 37.

⁴⁴ 47 CFR § 20.19(f).

⁴⁵ 47 CFR § 20.19(f)(1)(i).

⁴⁶ 47 CFR § 20.19(f)(1)(ii); *see also Volume Control Order*, 32 FCC Rcd at 9081-83, paras. 37-40.

⁴⁷ 47 CFR § 20.19(f)(2)(i)-(iii).

⁴⁸ 47 CFR § 20.19(f)(3).

⁴⁹ *Volume Control Order*, 32 FCC Rcd at 9085-86, paras. 47-49.

implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

- (3) For those handset models that have been certified as having met the 2019 ANSI standard's volume control requirement, manufacturers and service providers must clearly display information indicating the handset's amplification capabilities, including numerical metrics or ratings for handset volume control, on the packaging material of the handset and must also provide an explanation of those capabilities in the handset's user manual or as an insert in the packaging material for the handset. The volume control metrics or ratings displayed shall be the lowest metrics or ratings assigned to the handset for any air interface or frequency band.

23. We propose to modify our current volume control labeling requirement to delete the pending volume control compliance date and the cross reference currently contained in the rule, and to make implementation of the rule easier for manufacturers and service providers to follow.⁵⁰ Given that our current labeling requirement was adopted prior to the volume control technical standard being released as part of the 2019 ANSI Standard, we believe that these changes will provide clarity and aid compliance. We seek comment on whether our revised volume control labeling requirement will provide consumers with sufficient information to make an informed decision about a handset's volume control capabilities. If more information is required, we seek comment on what additional information is needed, why, and where that information should be displayed (label, package insert, or user manual)?

24. More generally we seek comment on whether our proposed revised labeling and disclosure requirements are straightforward and conspicuous enough for consumers to understand the hearing aid compatibility of a particular handset model.⁵¹ Does our proposal take into consideration the information that a consumer needs to know to make an informed decision both with respect to handset models certified under the 2019 ANSI Standard and those that are still being offered for sale that have been certified under older versions of the standard? Is there any additional information that consumers should be informed of when considering hearing aid-compatible handsets? Consistent with the existing labeling rule, our proposal requires manufacturers and service providers to disclose on a handset's packaging label if the handset is hearing aid-compatible and additional information on the handset's packaging label if the handset meets the volume control requirement. Further, consistent with the existing labeling requirement, our proposal requires manufacturers and service providers to disclose other hearing aid compatibility information through clear and effective means such as packaging labels, user manuals and instructions, call-out cards or other appropriate media.⁵² Are these methods of disclosure sufficient to meet consumer needs? What, if any, additional information should be required and where should this information be displayed? We also seek comment on whether we should continue to require service providers to make handsets available for in-store testing by consumers and whether a transition period is needed before our proposed new labeling requirements become effective.

E. Other Rule Changes

25. *Section 20.19.* We seek comment on whether to revise certain other provisions in section 20.19 to streamline and update our hearing aid compatibility requirements.

26. With the rapid pace of handset development and the number of new handsets that come to market each year, we propose to delete the "refresh" and "differing levels of functionality"

⁵⁰ 47 CFR § 20.19(f)(1)(ii).

⁵¹ We note that under our proposal manufacturers and service providers are free to indicate if a handset exceeds minimum requirements for hearing aid compatibility or volume control requirements.

⁵² See 47 CFR § 20.19(f)(2)(i); *WTB/OET Report and Order*, 27 FCC Rcd at 3740, para. 19.

requirements contained in the Commission's hearing aid compatibility rules.⁵³ These requirements require manufacturers and service providers to "refresh" and offer a range of hearing aid-compatible handset models that include a mix of new and existing models.⁵⁴ We seek comment about whether these requirements remain necessary as more and more handsets are required to be hearing aid-compatible. Our current handset deployment benchmarks require 66% of offered handset models to be hearing aid-compatible and these benchmarks increase to 85% in the near future. Given that these benchmarks require a significant majority of handsets to be hearing aid-compatible, are the "refresh" and "differing levels of functionality" requirements still necessary to ensure consumers have a wide variety of hearing aid-compatible handsets from which to choose? Have the Commission's changes to the handset deployment benchmarks rendered these requirements unnecessary?⁵⁵ Commenters should address the costs and benefits to manufacturers, service providers, and consumers with hearing loss if the Commission eliminates these requirements. We further propose to make a corresponding change to section 20.19(h) and delete the requirement that service providers make available on their websites information about the "differing levels of functionality" of each handset they offer.⁵⁶ We seek comment on our proposal.

27. We propose to revise the date that service providers must file certifications of compliance with the Commission's hearing aid compatibility provisions and the date that manufacturers must file compliance reports.⁵⁷ Presently, service provider certifications are due January 15 each year and manufacturer reports are due July 15 each year. We propose to move these dates to January 31 and July 31, respectively. Under this approach, the filing window for service providers would open the first business day in January and for manufacturers the first business day in July. This change would ensure that service provider certifications and manufacturer reports are "up-to-date as of the last day of the calendar month preceding the due date of each report and certification."⁵⁸ We seek comment on this change.

28. Finally, throughout section 20.19, we propose to delete references to implementation dates and benchmarks that have already passed. Eliminating these references will simplify the rules and make them easier to read and understand. We also propose deleting all references to hearing aid compatibility requirements and deployment benchmarks that applied to handsets certified under the 2007 ANSI Standard, except for labeling and disclosure requirements related to these handsets. Because all certifications under the 2007 ANSI Standard remain valid, current language in the rule describing the requirements and benchmarks that apply to these handsets appears unnecessary. To the extent handsets certified under the 2007 ANSI standard are still being offered for sale, however, these handsets must be labeled in a manner consistent with our labeling and disclosure requirements. We also seek comment on any other ministerial changes to section 20.19 we should consider as we update Commission rules.

⁵³ 47 CFR § 20.19(c)(1)(ii), (c)(4)(ii), (d)(4)(ii). To ensure that handsets available to consumers with hearing loss include the newest and most advanced technologies, manufacturers must periodically "refresh" their selection by replacing older hearing aid-compatible handsets with newer compatible handsets each year, and service providers must offer a range of hearing aid-compatible handsets with "differing levels of functionality."

⁵⁴ 47 CFR § 20.19(c)(1)(ii), (c)(4)(ii), (d)(4)(ii).

⁵⁵ Based on the most recent hearing aid compatibility status reports filed by device manufacturers, 64 out of 69 (more than 92%) of new handset models offered between August 1, 2018 and June 30, 2019 are hearing-aid compatible. See *List of All Handsets Offered by Manufacturers*, at <https://www.fcc.gov/wireless/systems-utilities/universal-licensing-system/hearing-aid-compatibility-status-reporting-1> (last visited Nov. 20, 2019).

⁵⁶ 47 CFR § 20.19(h).

⁵⁷ 47 CFR § 20.19(i).

⁵⁸ *Id.*

29. *Section 68.300.* We propose a technical correction of section 68.300 of the Commission's rules, which requires labeling of hearing aid-compatible telephones. When the Commission amended part 68 of the rules in 2000 to remove various provisions pertaining to registration of terminal equipment connected to the public switched telephone network (PSTN), it appears that a definition of the term "permanently affixed," which is relevant to the labeling requirement, was inadvertently deleted.⁵⁹ We propose to restore an updated version of the definition.

30. Under section 68.300(b) of the rules, if a telephone that is approved for connection to the PSTN is hearing aid-compatible, the letters "HAC" must be permanently affixed to the telephone.⁶⁰ Prior to the 2000 amendments, this provision was designated as paragraph (c) of section 64.300, and it referenced a definition of "permanently affixed" contained in what was then paragraph (b).⁶¹ In 2000, the Commission deleted the existing paragraph (b)—including the definition of "permanently affixed"—and renumbered paragraph (c) as paragraph (b).⁶² As a result, section 68.300(b) of the rules now refers to a definition that is no longer present in the rule. The current provision reads as follows:

(b) As of April 1, 1997, all registered telephones, including cordless telephones, as defined in § 15.3(j) of this chapter, manufactured in the United States (other than for export) or imported for use in the United States, that are hearing aid compatible, as defined in § 68.316, shall have the letters "HAC" permanently affixed thereto. "Permanently affixed" shall be defined as in paragraph (b)(5) of this section. Telephones used with public mobile services or private radio services, and secure telephones, as defined by § 68.3, are exempt from this requirement.⁶³

31. Subsequently, in 2017, the Commission adopted hearing aid compatibility rules for telephonic equipment used with advanced communications services (ACS telephonic CPE).⁶⁴ These rules include an updated definition of "permanently affixed," applicable to the labeling of such equipment as hearing aid-compatible.⁶⁵ To ensure that hearing aid compatibility labeling requirements are consistent for both PSTN telephones and advanced telephonic CPE, we propose to amend section 68.300(b) to include the same definition currently provided in section 68.502(a), as follows:

"Permanently affixed" means that the label is etched, engraved, stamped, silkscreened, indelibly

⁵⁹ *2000 Biennial Review of Part 68 of the Commission's Rules and Regulations*, CC Docket No. 99-216, Report and Order, 15 FCC Rcd 24944, 25010, Appx. B (2000) (deleting the previous paragraph (b) of section 68.300 and re-designating paragraph (c) as current paragraph (b)).

⁶⁰ 47 CFR § 68.300(b).

⁶¹ *See* 47 CFR § 68.300 (1999). The definition read: "As used herein, 'permanently affixed' means that the required nameplate data is etched, engraved, stamped, indelibly printed or otherwise permanently marked. Alternatively, the required information may be permanently marked on a nameplate of metal, plastic, or other material fastened to the enclosure by welding, riveting, or with a permanent adhesive. Such a nameplate must be able to last for the expected lifetime of the equipment and must not be readily detachable." *See* 47 CFR § 68.300(b)(5) (1999); *Connection of Customer-Provided Terminal Equipment to the Telephone Network*, CC Docket No. 96-28, Report and Order, 12 FCC Rcd 19218, 19233-36, Appx. C (1997).

⁶² *2000 Biennial Review of Part 68 of the Commission's Rules and Regulations*, CC Docket No. 99-216, Report and Order, 15 FCC Rcd 24944, 25010, Appx. B (2000).

⁶³ 47 CFR § 68.300(b).

⁶⁴ *Volume Control Order*, 32 FCC Rcd at 9095-96, Appx. B (adopting new sections 68.501-68.504). ACS telephonic CPE includes, but is not limited to, telephones used with voice over Internet Protocol (VoIP) services. *See* 47 CFR § 68.3 (defining "ACS telephonic CPE" and "advanced communications services").

⁶⁵ 47 CFR § 68.502(a)(1).

printed, or otherwise permanently marked on a permanently attached part of the equipment or on a nameplate of metal, plastic, or other material fastened to the equipment by welding, riveting, or a permanent adhesive. The label must be designed to last the expected lifetime of the equipment in the environment in which the equipment may be operated and must not be readily detachable.

32. Further, we propose to delete from the paragraph the stated requirement date of April 1, 1997, given that the starting date has passed.⁶⁶ Because there are only minor differences between the new and old definitions of “permanently affixed,” we do not anticipate that these proposed changes will have any significant effect on the current practices of hearing aid compatibility manufacturers or equipment providers. Therefore, we propose to make this amendment effective in the normal course, 30 days after Federal Register publication of the amended rule. We seek comment on these proposed technical corrections and effective date.

IV. PROCEDURAL MATTERS

33. *Ex parte rules.* This proceeding shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.⁶⁷ Persons making *ex parte* 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 electronic comment filing system 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.

34. *Initial Regulatory Flexibility Act.* As required by the Regulatory Flexibility Act of 1980, as amended (RFA),⁶⁸ the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and actions considered in the Notice of Proposed Rulemaking. The text of the IRFA is set forth in Appendix B. Written public comments are requested on this IRFA. Comments must be specifically identified as responses to the IRFA and must be filed by the deadlines for comments on the Notice of Proposed Rulemaking.⁶⁹

35. *Filing of Comments and Reply Comments.* Pursuant to sections 1.415 and 1.419 of the Commission’s rules (47 CFR §§ 1.415, 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

⁶⁶ 47 CFR § 68.300(b).

⁶⁷ 47 CFR § 1.1200 *et seq.*

⁶⁸ See 5 U.S.C. §§ 601-612. The RFA has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

⁶⁹ See 5 U.S.C. § 603(a).

Commission's Electronic Comment Filing System (ECFS).⁷⁰

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <https://www.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

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 St., 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 9050 Junction Drive, Annapolis Junction, MD 20701.
- 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).

36. *Contact Person.* For further information regarding the Notice of Proposed Rulemaking, contact Eli Johnson, Wireless Telecommunications Bureau, (202) 418-1395, e-mail Eli.Johnson@fcc.gov.

V. ORDERING CLAUSES

37. Accordingly, **IT IS ORDERED**, pursuant to sections 4(i), 303(r), and 710 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and 610, this Notice of Proposed Rulemaking **IS HEREBY ADOPTED**.

38. **IT IS FURTHER ORDERED** that pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the Commission's Rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments on this Notice of Proposed Rulemaking on or before **[30 days after the date of publication in the Federal Register]**, and reply comments on or before **[45 days after the date of publication in the Federal Register]**.

39. **IT IS FURTHER ORDERED** that WT Docket Nos. 07-250 and 10-254 are hereby terminated.

40. **IT IS FURTHER ORDERED** that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of the Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

⁷⁰ See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24121 (1998).

Marlene H. Dortch
Secretary

APPENDIX A
Proposed Rules

The Federal Communications Commission proposes to amend Part 20 of Title 47 of the Code of Federal Regulations as follows:

1. The authority citation for Part 20 is revised to read as follows:

AUTHORITY: 47 U.S.C. 151, 152(a), 154(i), 155, 157, 160, 201, 214, 222, 251(e), 301, 302, 303, 303(b), 303(r), 307, 307(a), 309, 309(j)(3), 316, 316(a), 332, 610, 615, 615a, 615b, 615c, unless otherwise noted.

2. Amend Section 20.19 to read as follows:

§20.19 Hearing aid-compatible mobile handsets.

(a) *Definitions.* For purposes of this section:

2011 ANSI standard refers to the technical standard for hearing aid compatibility applicable to frequencies between 698 MHz and 6 GHz as set forth in the standards document “American National Standard Methods of Measurement of Compatibility Between Wireless Communication Devices and Hearing Aids,” ANSI C63.19-2011.

2019 ANSI standard refers to the technical standard for hearing aid compatibility applicable to frequencies between 614 MHz and 6 GHz as set forth in the standards document “American National Standard Methods of Measurement of Compatibility Between Wireless Communication Devices and Hearing Aids,” ANSI C63.19-2019.

Digital mobile service refers to a terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including both interconnected and non-interconnected VoIP services, to the extent that such service is provided over frequencies specified in the 2011 ANSI standard or the 2019 ANSI standard.

Handset refers to a device used in delivery of digital mobile service in the United States that contains a built-in speaker and is typically held to the ear in any of its ordinary uses.

Manufacturer refers to a manufacturer of handsets that are used in delivery of digital mobile service, as defined in this section, in the United States.

Model refers to a wireless handset device that a manufacturer has designated as a distinct device model, consistent with its own marketing practices. However, if a manufacturer assigns different model device designations solely to distinguish units sold to different carriers, or to signify other distinctions that do not relate to either form, features, or capabilities, such designations shall not count as distinct models for purposes of this section.

Service provider refers to a provider of digital mobile service, as defined in this section, in the United States.

Tier I carrier refers to a CMRS provider that offers such service nationwide.

(b) *Hearing aid compatibility; technical standards—*

(1) *Handset compatibility on or after [the transition date]*. In order to satisfy a manufacturer or service provider's obligations under subsections (c) and (d), a handset submitted for equipment certification or for a permissive change relating to hearing aid compatibility on or after [the transition date] must meet the 2019 ANSI standard.

(2) *Handset compatibility before [the transition date]*. In order to satisfy a manufacturer or service provider's obligations under subsections (c) and (d), a handset submitted for equipment certification or for a permissive change relating to hearing aid compatibility before [the transition date] must meet either:

(i) at a minimum, the M3 and T3 ratings associated with the 2011 ANSI standard; or

(ii) the 2019 ANSI standard.

(3) *Handsets operating over multiple frequency bands or air interfaces.*

(i) Beginning on [the transition date], a handset that uses only the frequencies specified in the 2019 ANSI standard is hearing aid-compatible if it meets the 2019 ANSI standard for all frequency bands and air interfaces over which it operates, and the handset has been certified as compliant with the test requirements for the 2019 ANSI standard pursuant to §2.1033(d) of this chapter. A handset that incorporates operations outside the frequencies specified in the 2019 ANSI standard is hearing aid-compatible if the handset otherwise satisfies the requirements of this paragraph (b).

(ii) Before [the transition date], a handset that uses only the frequencies specified in the 2011 ANSI standard is hearing aid-compatible with regard to radio frequency interference or inductive coupling if it meets the ANSI standard for all frequency bands and air interfaces over which it operates, and the handset has been certified as compliant with the test requirements for the 2011 ANSI standard pursuant to §2.1033(d) of this chapter. Before [the transition date], a handset that incorporates operations outside the frequencies specified in the 2011 ANSI standard is hearing aid-compatible if the handset otherwise satisfies the requirements of this paragraph (b).

(4) All factual questions of whether a handset meets the technical standard(s) of this paragraph shall be referred for resolution to the Chief, Office of Engineering and Technology, Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554.

(5) A handset certified under any version of ANSI C63.19 previous to the 2019 ANSI standard remains hearing aid-compatible for purposes of this section.

(c) *Phase-in of hearing aid-compatibility requirements.* The following applies to each manufacturer and service provider that offers handsets used to deliver the services specified in paragraph (a) of this section and that does not fall within the *de minimis* exception set forth in paragraph (e) of this section.

(1) *Manufacturers—Number of hearing aid-compatible handset models offered.* For each digital air interface for which it offers handsets in the United States or imported for use in the United States, each manufacturer must offer hearing aid compatible handsets as follows:

(i) Beginning October 3, 2018, at least sixty-six (66) percent of those handset models (rounded down to the nearest whole number) must be hearing aid-compatible under paragraph (b) of this section.

(ii) Beginning October 4, 2021, at least eighty-five (85) percent of those handset models (rounded down

to the nearest whole number) must be hearing aid-compatible under paragraph (b) of this section.

(2) *Tier I carriers.* For each digital air interface for which it offers handsets to customers, each Tier I carrier must:

(i) Beginning April 3, 2019, ensure that at least sixty-six (66) percent of the handset models it offers are hearing aid-compatible under paragraph (b) of this section, calculated based on the total number of unique handset models the carrier offers nationwide.

(ii) Beginning April 4, 2022, ensure that at least eighty-five (85) percent of the handset models it offers are hearing aid-compatible under paragraph (b) of this section, calculated based on the total number of unique handset models the carrier offers nationwide.

(3) *Service providers other than Tier I carriers.* For each digital air interface for which it offers handsets to customers, each service provider other than a Tier I carrier must:

(i) Beginning April 3, 2020, ensure that at least sixty-six (66) percent of the handset models it offers are hearing aid-compatible under paragraph (b) of this section, calculated based on the total number of unique handset models the carrier offers.

(ii) Beginning April 3, 2023, ensure that at least eighty-five (85) percent of the handset models it offers are hearing aid-compatible under paragraph (b) of this section, calculated based on the total number of unique handset models the carrier offers.

(4) *In-store testing.* All service providers must make available for consumers to test, in each retail store owned or operated by the service provider, all of its handset models that are hearing aid-compatible under paragraph (b) of this section.

(d) [Reserved]

(e) *De minimis exception.* (1)(i) Manufacturers or service providers that offer two or fewer handsets in an air interface in the United States are exempt from the requirements of this section in connection with that air interface, except with regard to the reporting and certification requirements in paragraph (i) of this section. Service providers that obtain handsets only from manufacturers that offer two or fewer handset models in an air interface in the United States are likewise exempt from the requirements of this section other than paragraph (i) of this section in connection with that air interface.

(ii) Notwithstanding paragraph (e)(1)(i) of this section, manufacturers that have had more than 750 employees for at least two years and service providers that have had more than 1500 employees for at least two years, and that have been offering handsets over an air interface for at least two years, that offer one or two handsets in that air interface in the United States must offer at least one handset model that is hearing aid-compatible under paragraph (b) of this section in that air interface. Service providers that obtain handsets only from manufacturers that offer one or two handset models in an air interface in the United States, and that have had more than 750 employees for at least two years and have offered handsets over that air interface for at least two years, are required to offer at least one handset model in that air interface that is hearing aid-compatible under paragraph (b) of this section. For purposes of this paragraph, employees of a parent, subsidiary, or affiliate company under common ownership or control with a manufacturer or service provider are considered employees of the manufacturer or service provider. Manufacturers and service providers covered by this paragraph must also comply with all other requirements of this section.

(2) Manufacturers or service providers that offer three handset models in an air interface must offer at least one handset model that is hearing aid-compatible under paragraph (b) of this section in that air interface. Service providers that obtain handsets only from manufacturers that offer three handset models in an air interface in the United States are required to offer at least one handset model in that air interface that is hearing aid-compatible under paragraph (b) of this section.

(3) Manufacturers that offer four or five handset models in an air interface must offer at least two handset models that are hearing aid-compatible under paragraph (b) of this section in that air interface. Tier I carriers who offer four handset models in an air interface must offer at least two handsets that are hearing aid-compatible under paragraph (b) of this section in that air interface and Tier I carriers who offer five handset models in an air interface must offer at least three handsets that are hearing aid-compatible under paragraph (b) of this section in that air interface. Service providers, other than Tier I carriers, who offer four handset models in an air interface must offer at least two handset models that are hearing aid-compatible under paragraph (b) of this section in that air interface and service providers, other than Tier I carriers, who offer five handset models in an air interface must offer at least three handsets that are hearing aid-compatible under paragraph (b) of this section in that air interface.

(f) *Labeling and disclosure requirements for hearing aid-compatible handsets*

(1) For all handset models certified to be hearing aid-compatible, manufacturers and service providers shall disclose to consumers through clear and effective means (e.g., inclusion of packaging materials, user manuals, call-out cards or other physical media):

- (i) that the handset is hearing aid-compatible (including placing this information on the handset's packaging label);
- (ii) the air interfaces on the handset that are not hearing aid-compatible, if applicable, or have been determined to be hearing aid-compatible under special testing circumstances;
- (iii) the ANSI standard that was used to determine the hearing aid compatibility of the handset model's air interfaces; and
- (iv) if using the 2011 ANSI standard or earlier, the lowest hearing aid compatibility rating assigned to any of the air interfaces.

(2) Any handset model certified to be hearing aid-compatible but with one or more air interfaces that are not hearing aid-compatible must include the following language:

This phone has been tested and certified for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

(3) For those handset models that have been certified as having met the 2019 ANSI standard's volume control requirement, manufacturers and service providers must clearly display information indicating the handset's amplification capabilities, including numerical metrics or ratings for handset volume control, on the packaging material of the handset and an explanation of those capabilities in the handset's user manual or as an insert in the packaging material for the handset. The volume control metrics or ratings displayed shall be the lowest metrics or ratings assigned to the handset for any air interface or frequency band.

(g) *Model designation requirements.* Where a manufacturer has made physical changes to a handset that result in a change in the hearing aid compatibility rating under the 2011 ANSI standard, the altered handset must be given a model designation distinct from that of the handset prior to its alteration.

(h) *Website and record retention requirements.* (1) Each manufacturer and service provider that operates a publicly-accessible website must make available on its website a list of all hearing aid-compatible models currently offered, the ANSI standard used to evaluate hearing aid compatibility, the ratings of those models under the relevant ANSI standard, if applicable, and an explanation of the rating system. Each service provider must also include on its website: A list of all non-hearing aid-compatible models currently offered, as well as a link to the current FCC web page containing information about the wireless hearing aid compatibility rules and service providers' obligations. Each service provider must also include the marketing model name/number(s) and FCC ID number of each hearing aid-compatible and non-hearing aid-compatible model currently offered.

(2) Service providers must maintain on their website either:

(i) A link to a third-party website as designated by the Commission or Wireless Telecommunications Bureau with information regarding hearing aid-compatible and non-hearing aid-compatible handset models; or

(ii) A clearly marked list of hearing aid-compatible handset models that are no longer offered if the calendar month/year that model was last offered is within 24 months of the current calendar month/year and was last offered in January 2018 or later along with the information listed in paragraph (h)(1) of this section for each hearing aid-compatible handset.

(3) If the Wireless Telecommunications Bureau determines that the third-party website has been eliminated or is not updated in a timely manner, it may select another website or require service providers to comply with paragraph (h)(2)(ii) of this section.

(4) The information on the website must be updated within 30 days of any relevant changes, and any website pages containing information so updated must indicate the day on which the update occurred.

(5) Service providers must maintain internal records including the ratings, if applicable, of all hearing aid-compatible and non-hearing aid-compatible models no longer offered (if the calendar month/year that model was last offered is within 24 months of the current calendar month/year and was last offered in January 2018 or later); for models no longer offered (if the calendar month/year that model was last offered is within 24 months of the current calendar month/year), the calendar months and years each hearing aid-compatible and non-hearing aid-compatible model was first and last offered; and the marketing model name/number(s) and FCC ID number of each hearing aid-compatible and non-hearing aid-compatible model no longer offered (if the calendar month/year that model was last offered is within 24 months of the current calendar month/year and was last offered in January 2018 or later).

(i) *Reporting requirements—* (1) *Reporting and certification dates.* Manufacturers shall submit Form 655 reports on efforts toward compliance with the requirements of this section on an annual basis by July 31 of each year. Service providers shall submit Form 855 certifications on their compliance with the requirements of this section by January 31 of each year. Information in each report and certification must be up-to-date as of the last day of the calendar month preceding the due date of each report and certification.

(2) *Content of manufacturer reports.* Reports filed by manufacturers must include:

- (i) Handset models tested, since the most recent report, for compliance with the applicable hearing aid compatibility technical ratings;
 - (ii) Compliant handset models offered to service providers since the most recent report, identifying each model by marketing model name/number(s) and FCC ID number;
 - (iii) For each compliant model, the air interface(s) and frequency band(s) over which it operates, the hearing aid compatibility ratings for each frequency band and air interface under ANSI Standard C63.19, the ANSI Standard C63.19 version used, and the months in which the model was available to service providers since the most recent report;
 - (iv) Non-compliant models offered to service providers since the most recent report, identifying each model by marketing model name/number(s) and FCC ID number;
 - (v) For each non-compliant model, the air interface(s) over which it operates and the months in which the model was available to service providers since the most recent report;
 - (vi) Total numbers of compliant and non-compliant models offered to service providers for each air interface as of the time of the report;
 - (vii) Any instance, as of the date of the report or since the most recent report, in which multiple compliant or non-compliant devices were marketed under separate model name/numbers but constitute a single model for purposes of the hearing aid compatibility rules, identifying each device by marketing model name/number and FCC ID number;
 - (viii) Status of product labeling;
 - (ix) Outreach efforts; and
 - (x) If the manufacturer maintains a public Web site, the Web site address of the page(s) containing the information regarding hearing aid-compatible handset models required by paragraph (h) of this section.
- (3) *Content of service provider certifications.* Certifications filed by service providers must include:
- (i) The name of the signing executive and contact information;
 - (ii) The company(ies) covered by the certification;
 - (iii) The FCC Registration Number (FRN);
 - (iv) If the service provider is subject to paragraph (h) of this section, the website address of the page(s) containing the required information regarding handset models;
 - (v) The percentage of handsets offered that are hearing aid-compatible (providers will derive this percentage by determining the number of hearing aid-compatible handsets offered across all air interfaces during the year divided by the total number of handsets offered during the year); and
 - (vi) The following language:

I am a knowledgeable executive [of company x] regarding compliance with the Federal Communications Commission's wireless hearing aid compatibility requirements at a wireless service provider covered by

those requirements.

I certify that the provider was [(in full compliance/not in full compliance)] [choose one] at all times during the applicable time period with the Commission's wireless hearing aid compatibility deployment benchmarks and all other relevant wireless hearing aid compatibility requirements.

The company represents and warrants, and I certify by this declaration under penalty of perjury pursuant to 47 CFR 1.16 that the above certification is consistent with 47 CFR 1.17, which requires truthful and accurate statements to the Commission. The company also acknowledges that false statements and misrepresentations to the Commission are punishable under Title 18 of the U.S. Code and may subject it to enforcement action pursuant to Sections 501 and 503 of the Act.

(vii) If the company selected that it was not in full compliance, an explanation of which wireless hearing aid compatibility requirements it was not in compliance with, when the non-compliance began and (if applicable) ended with respect to each requirement.

(4) *Format.* The Wireless Telecommunications Bureau is delegated authority to approve or prescribe forms, formats, and methods for submission of the reports and certifications in addition to or instead of those required by this section. Any format that the Bureau may approve or prescribe shall be made available on the Bureau's website.

(j) *Enforcement.* Enforcement of this section is hereby delegated to those states that adopt this section and provide for enforcement. The procedures followed by a state to enforce this section shall provide a 30-day period after a complaint is filed, during which time state personnel shall attempt to resolve a dispute on an informal basis. If a state has not adopted or incorporated this section, or failed to act within six (6) months from the filing of a complaint with the state public utility commission, the Commission will accept such complaints. A written notification to the complainant that the state believes action is unwarranted is not a failure to act. The procedures set forth in part 68, subpart E of this chapter are to be followed.

(k) *Delegation of rulemaking authority.* (1) The Chief of the Wireless Telecommunications Bureau and the Chief of the Office of Engineering and Technology are delegated authority, by notice-and-comment rulemaking, to issue an order amending this section to the extent necessary to adopt technical standards for additional frequency bands and/or air interfaces upon the establishment of such standards by ANSI Accredited Standards Committee C63TM, provided that the standards do not impose with respect to such frequency bands or air interfaces materially greater obligations than those imposed on other services subject to this section. Any new obligations on manufacturers and Tier I carriers pursuant to paragraphs (c) through (i) of this section as a result of such standards shall become effective no less than one year after release of the order adopting such standards and any new obligations on other service providers shall become effective no less than 15 months after the release of such order, except that any new obligations on manufacturers and service providers subject to paragraph (e)(1)(ii) of this section shall become effective no less than two years after the release of such order.

(2) The Chief of the Wireless Telecommunications Bureau and the Chief of the Office of Engineering and Technology are delegated authority, by notice-and-comment rulemaking if required by statute or otherwise in the public interest, to issue an order amending this section to the extent necessary to approve any version of the technical standards for radio frequency interference, inductive coupling, or volume control adopted subsequently to ANSI C63.19-2007 for use in determining whether a wireless handset meets the appropriate rating over frequency bands and air interfaces for which technical standards have previously been adopted either by the Commission or pursuant to paragraph (k)(1) of this section. This delegation is limited to the approval of changes to the technical standards that do not raise major compliance issues. Further, by such approvals, the Chiefs may only permit, and not require, the use of

such subsequent versions of the technical standards to establish hearing aid compatibility.

(l) The standards required in this section are incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. § 552(a) and 1 CFR part 51. All approved material is available for inspection at the Federal Communications Commission (FCC), 445 12th St. SW, Reference Information Center, Room CY-A257, Washington, DC 20554, (202) 418-0270, and is available from the source indicated below. They are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

(1) IEEE Standards Association (IEEE-SA), 445 Hoes Lane, Piscataway, NJ 08854-4141, (732) 981-0060, email to stds-info@ieee.org, and <http://standards.ieee.org/>.

(i) ANSI C63.19-2007, American National Standard Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids, June 8, 2007.

(ii) ANSI C63.19-2011, American National Standard Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids, May 27, 2011.

(iii) ANSI C63.19-2019, American National Standard Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids, August 19, 2019.

The Federal Communications Commission proposes to amend Part 2 of Title 47 of the Code of Federal Regulations as follows:

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

Authority: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

4. Amend Section 2.1033 by revising paragraph (d) to read as follows:

§ 2.1033 Application for certification.

* * * * *

(d) Applications for certification of equipment operating under part 20 of this chapter, that a manufacturer is seeking to certify as hearing aid-compatible, as set forth in §20.19 of this chapter, shall include a statement indicating compliance with the test requirements of §20.19 of this chapter. The manufacturer of the equipment shall be responsible for maintaining the test results.

* * * * *

The Federal Communications Commission proposes to amend Part 68 of Title 47 of the Code of Federal Regulations as follows:

Part 68 - CONNECTION OF TERMINAL EQUIPMENT TO THE TELEPHONE NETWORK

1. The authority citation for part 68 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 610.

2. The authority citation for Part 68, Subpart D is revised to read as follows:
Authority: 47 U.S.C. 154, 155, 303, 610.

3. Amend § 68.300 by revising paragraph (b) to read as follows:

§ 68.300 Labeling requirements.

* * * * *

(b) All registered telephones, including cordless telephones, as defined in §15.3(j) of this chapter, manufactured in the United States (other than for export) or imported for use in the United States, that are hearing aid compatible, as defined in §68.316, shall have the letters “HAC” permanently affixed thereto. “Permanently affixed” means that the label is etched, engraved, stamped, silkscreened, indelibly printed, or otherwise permanently marked on a permanently attached part of the equipment or on a nameplate of metal, plastic, or other material fastened to the equipment by welding, riveting, or a permanent adhesive. The label must be designed to last the expected lifetime of the equipment in the environment in which the equipment may be operated and must not be readily detachable. Telephones used with public mobile services or private radio services, and secure telephones, as defined by § 68.3, are exempt from this requirement.

APPENDIX B

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act (RFA),⁷¹ the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the Notice of Proposed Rulemaking (*Notice*). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments provided in the *Notice*. The Commission will send a copy of the *Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).⁷² In addition, the *Notice* and IRFA (or summaries thereof) will be published in the Federal Register.⁷³

A. Need for, and Objectives of, the Proposed Rules

2. The Commission's hearing aid compatibility rules ensure that the millions of Americans with hearing loss have access to the same types of technologically advanced telephone handsets as those without hearing loss. Both manufacturers and service providers are required to make available handsets that meet specified technical criteria for hearing aid compatibility. The Commission's rules define whether a wireless handset is hearing-aid compatible by reference to a 2011 standards document from the American National Standards Institute (ANSI). ANSI's Accredited Standards Committee C63 (ANSI Committee) recently adopted new technical specifications for hearing aid compatibility, and we propose to incorporate that new 2019 ANSI standard into our rules. In the *Notice*, the Commission seeks comment on implementation and transition issues involved in making such a change. The *Notice* also proposes to remove unnecessary or superseded rule provisions and seek comment on ways to simplify and update our hearing aid compatibility rules.

3. The Commission proposes to incorporate the 2019 ANSI Standard as the exclusive technical standard for evaluating the hearing aid compatibility of wireless handsets. In addition to including a volume control standard as part of the new standard, the 2019 ANSI Standard requires testing that will improve a hearing aid user's experience, including those who use cochlear implants. The new standard addresses new technologies and devices operating in the frequency range of 614 MHz to 6 GHz, reduces the testing burden, and uses a simple set of requirements and thresholds rather than the M/T rating system used by the 2011 ANSI Standard to determine hearing aid compatibility. The Commission anticipates that using the 2019 ANSI Standard to determine whether a handset is hearing aid-compatible for purposes of the Commission's rules will serve the public interest by establishing standards for new devices and operations over additional frequency bands. New testing methodologies in the 2019 ANSI Standard should also improve the measurement of potential hearing aid interference. The new standard no longer uses the M/T category system, achieves harmonization with other hearing aid standards, and changes several testing procedures meant to improve the consumer experience and reduce testing burdens. The Commission seeks comment on its proposal and on the costs, benefits, compliance issues, and technical impacts of applying the new ANSI standard. The *Notice* also seeks comment on implementing the new standard and an appropriate transition period for manufacturers and service providers to comply with the new standard in the handsets they produce or offer.

4. Finally, the *Notice* seeks comment on ways to streamline the wireless hearing aid compatibility rules by eliminating unnecessary and outdated provisions. For example, the *Notice* proposes to simplify the labeling rules, to remove the "refresh" and "differing levels of functionality"

⁷¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

⁷² See 5 U.S.C. § 603(a).

⁷³ See *id.*

requirements, and to delete references to implementation dates and benchmarks that have passed. Eliminating these references would simplify the rules and make them easier to read and understand. The *Notice* also seeks comment on aligning the definition of “permanently affixed” to ensure that hearing aid compatibility labeling requirements are consistent for both PSTN telephones and advanced telephonic customer premises equipment.

B. Legal Basis

5. The proposed action is authorized pursuant to Sections 4(i), 303(r), and 710 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and 610.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Would Apply

6. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.⁷⁴ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁷⁵ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁷⁶ A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁷⁷

7. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three broad groups of small entities that could be directly affected herein.⁷⁸ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the SBA’s Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.⁷⁹ These types of small businesses represent 99.9% of all businesses in the United States which translates to 28.8 million businesses.⁸⁰

8. Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”⁸¹ Nationwide, as of August 2016, there were approximately 356,494 small organizations based on registration and tax data filed by nonprofits with the Internal Revenue Service (IRS).⁸²

⁷⁴ *Id.* § 603(b)(3).

⁷⁵ *Id.* § 601(6).

⁷⁶ *Id.* § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

⁷⁷ 15 U.S.C. § 632 (1996).

⁷⁸ *See* 5 U.S.C. § 601(3)-(6).

⁷⁹ *See* SBA, Office of Advocacy, “Frequently Asked Questions, Question 1 – What is a small business?” https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf (June 2016).

⁸⁰ *See* SBA, Office of Advocacy, “Frequently Asked Questions, Question 2- How many small businesses are there in the U.S.?” https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf (June 2016).

⁸¹ 5 U.S.C. § 601(4).

⁸² Data from the Urban Institute, National Center for Charitable Statistics (NCCS) reporting on nonprofit organizations registered with the IRS was used to estimate the number of small organizations. Reports generated

(continued....)

9. Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”⁸³ U.S. Census Bureau data from the 2012 Census of Governments⁸⁴ indicate that there were 90,056 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.⁸⁵ Of this number there were 37,132 General purpose governments (county⁸⁶, municipal and town or township⁸⁷) with populations of less than 50,000 and 12,184 Special purpose governments (independent school districts⁸⁸ and special districts⁸⁹) with populations of less than 50,000. The 2012 U.S. Census Bureau data for most types of governments in the local government category show that the majority of these governments have populations of less than 50,000.⁹⁰ Based on this data we estimate that at least 49,316 local government

(Continued from previous page)

using the NCCS online database indicated that as of August 2016 there were 356,494 registered nonprofits with total revenues of less than \$100,000. Of this number, 326,897 entities filed tax returns with 65,113 registered nonprofits reporting total revenues of \$50,000 or less on the IRS Form 990-N for Small Exempt Organizations and 261,784 nonprofits reporting total revenues of \$100,000 or less on some other version of the IRS Form 990 within 24 months of the August 2016 data release date. See <http://nccs.urban.org/sites/all/nccs-archive/html//tablewiz/tw.php> where the report showing this data can be generated by selecting the following data fields: Report: “The Number and Finances of All Registered 501(c) Nonprofits”; Show: “Registered Nonprofits”; By: “Total Revenue Level (years 1995, Aug to 2016, Aug)”; and For: “2016, Aug” then selecting “Show Results”.

⁸³ 5 U.S.C. § 601(5).

⁸⁴ See 13 U.S.C. § 161. The Census of Government is conducted every five (5) years compiling data for years ending with “2” and “7”. See also Program Description Census of Government, <https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=program&id=program.en.COG#>

⁸⁵ See U.S. Census Bureau, 2012 Census of Governments, Local Governments by Type and State: 2012 - United States-States, <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG02.US01>. Local governmental jurisdictions are classified in two categories - General purpose governments (county, municipal and town or township) and Special purpose governments (special districts and independent school districts).

⁸⁶ See U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States, <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01>. There were 2,114 county governments with populations less than 50,000.

⁸⁷ See U.S. Census Bureau, 2012 Census of Governments, Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States – States, <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01>. There were 18,811 municipal and 16,207 town and township governments with populations less than 50,000.

⁸⁸ See U.S. Census Bureau, 2012 Census of Governments, Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States, <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01>. There were 12,184 independent school districts with enrollment populations less than 50,000.

⁸⁹ See U.S. Census Bureau, 2012 Census of Governments, Special District Governments by Function and State: 2012 - United States-States, <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG09.US01>. The U.S. Census Bureau data did not provide a population breakout for special district governments.

⁹⁰ See U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States, <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01>; Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States–States, <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01>; and Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States, <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01>. While U.S. Census Bureau data did not provide a population breakout for special district governments, if the population of less than 50,000 for this category of local government is consistent with the other types of local governments the majority of the 38, 266 special district governments have populations of less than 50,000.

jurisdictions fall in the category of “small governmental jurisdictions.”⁹¹

10. *Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing.* This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment.⁹² Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, radio and television studio and broadcasting equipment.⁹³ The Small Business Administration has established a size standard for this industry of 750 employees or less.⁹⁴ U.S. Census Bureau data for 2012 show that 841 establishments operated in this industry in that year.⁹⁵ Of that number, 828 establishments operated with fewer than 1,000 employees, 7 establishments operated with between 1,000 and 2,499 employees and 6 establishments operated with 2,500 or more employees.⁹⁶ Based on this data, we conclude that a majority of manufacturers in this industry is small.

11. *Part 15 Handset Manufacturers.* The Commission has not developed a definition of small entities applicable to unlicensed communications handset manufacturers. The SBA category of Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing is the closest NAICS code category for Part 15 Handset Manufacturers. The Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing industry is comprised of establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment.⁹⁷ Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.”⁹⁸ The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, as firms having 750 or fewer employees.⁹⁹ U.S. Census

⁹¹ *Id.*

⁹² U.S. Census Bureau, 2012 NAICS Definitions, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing,” <https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en./ECN.NAICS2012.334220#>.

⁹³ *Id.*

⁹⁴ 13 CFR § 121.201, NAICS Code 334220.

⁹⁵ U.S. Census Bureau, 2012 *Economic Census of the United States*, Table EC1231SG2, Manufacturing: Summary Series: General Summary: Industry Statistics for Subsectors and Industries by Employment Size: 2012, NAICS Code 334220, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/31SG2//naics~334220.

⁹⁶ U.S. Census Bureau, American FactFinder; Industry Statistics for Subsectors and Industries by Employment Size: 2012, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_31SG2&prodType=table.

⁹⁷ U.S. Census Bureau, 2012 NAICS Definitions, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing,” <https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en./ECN.NAICS2012.334220#>.

⁹⁸ *Id.*

⁹⁹ 13 CFR § 121.201, NAICS Code 334220.

Bureau data for 2012 show that 841 establishments operated in this industry in that year.¹⁰⁰ Of that number, 828 establishments operated with fewer than 1,000 employees, 7 establishments operated with between 1,000 and 2,499 employees and 6 establishments operated with 2,500 or more employees.¹⁰¹ Thus, under this size standard, the majority of firms can be considered small.

12. *Wireless Telecommunications Carriers (except Satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services.¹⁰² The appropriate size standard under SBA rules is for the category Wireless Telecommunications Carriers (except Satellite) is that a business is small if it has 1,500 or fewer employees.¹⁰³ For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year.¹⁰⁴ Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.¹⁰⁵ Thus under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities.

13. The Commission's own data—available in its Universal Licensing System—indicate that, as of August 31, 2018, there are 265 Cellular licensees that will be affected by our actions today.¹⁰⁶ The Commission does not know how many of these licensees are small, as the Commission does not collect that information for these types of entities. Similarly, according to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.¹⁰⁷ Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.¹⁰⁸ Thus, using available data, we estimate that the majority of wireless firms can be considered small.

14. *Wireless Resellers*. The SBA has not developed a small business size standard specifically for Wireless Resellers. The SBA category of Telecommunications Resellers is the closest NAICS code category for wireless resellers. The Telecommunications Resellers industry comprises

¹⁰⁰ U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1231SG2, Manufacturing: Summary Series: General Summary: Industry Statistics for Subsectors and Industries by Employment Size: 2012, NAICS Code 334220, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/31SG2//naics~334220.

¹⁰¹ *Id.*

¹⁰² U.S. Census Bureau, 2012 NAICS Definitions: 517210 Wireless Telecommunications Carriers (except Satellite), See <https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en/ECN.NAICS2012.517210>.

¹⁰³ 13 CFR § 121.201, NAICS Code 517210.

¹⁰⁴ U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210.

¹⁰⁵ *Id.* Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

¹⁰⁶ See Federal Communications Commission, Wireless Telecommunications, <http://wireless.fcc.gov/uls>. For the purposes of this IRFA, consistent with Commission practice for wireless services, the Commission estimates the number of licensees based on the number of unique FCC Registration Numbers.

¹⁰⁷ See Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, Trends in Telephone Service at Tbl. 5.3 (Sept. 2010), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

¹⁰⁸ See *id.*

establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual network operators (MVNOs) are included in this industry.¹⁰⁹ Under the SBA's size standard, such a business is small if it has 1,500 or fewer employees.¹¹⁰ U.S. Census Bureau data for 2012 show that 1,341 firms provided resale services during that year.¹¹¹ Of that number, all operated with fewer than 1,000 employees.¹¹² Thus, under this category and the associated small business size standard, the majority of these resellers can be considered small entities.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

15. The potential rule changes proposed in the *Notice*, if adopted, could impose some new reporting, recordkeeping, or other compliance requirements on some small entities. The *Notice* proposes to adopt the 2019 ANSI Standard as the exclusive technical standard for evaluating if a wireless handset is hearing aid-compatible under the Commission's rules. The new standard reduces the testing burden, uses a simple set of limits rather than the M/T category system for handsets as well as hearing aids, achieves harmonization with other hearing aid standards, and makes some additional test procedure-related changes to improve the consumer experience.

16. The *Notice* proposes to replace the 2011 ANSI Standard with the 2019 ANSI Standard after a two-year transition period. During the transition period, handset models meeting either the 2011 ANSI Standard or 2019 ANSI Standard could continue to be certified as hearing aid-compatible under the Commission's rules. Certifications issued before and within the transition period, including certifications under the 2011 ANSI Standard and any earlier versions of ANSI C63.19, would remain hearing aid-compatible. As a result, manufacturers would not need to retest or recertify existing handset models as hearing aid-compatible. The *Notice* seeks comments on whether the adoption of a new ANSI standard poses any impediment to meeting the 2021 volume control deadline, and on whether to harmonize the two deadlines.

17. If the Commission incorporates the 2019 ANSI Standard for wireless handsets and eliminates the currently applicable standard after a transition period, such action would alter the compliance obligations of wireless handset manufacturers and service providers that are small entities, as well as for all other wireless handset manufacturers and service providers, by requiring them to use a different method for testing and evaluating wireless handset compliance, including with a new volume control requirement.

18. The 2019 ANSI Standard applies to wireless handsets in a wider frequency range—from 614 MHz to 6 GHz—as compared to the 2011 ANSI Standard's frequency range of 698 MHz to 6 GHz. The *Notice* proposes that if the Commission adopts the 2019 ANSI Standard, a handset operating only in the ranges specified in the standard would need to satisfy the standard for all frequency bands and air interfaces over which it operates. If the Commission applies some or all of the current hearing aid compatibility rules (*e.g.*, labeling and certification) to handsets certified under the new standard using the

¹⁰⁹ U.S. Census Bureau, 2012 NAICS Definitions 517911 Telecommunications Resellers, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012>.

¹¹⁰ 13 CFR § 121.201, NAICS Code 517911.

¹¹¹ U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517911, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517911.

¹¹² *Id.*

new frequency range, small entities that did not previously have to comply with the requirements would be subject to new obligations.

19. Under the current rules, subject to a *de minimis* exception, handset manufacturers and service providers must offer minimum numbers of hearing aid-compatible handsets for each covered air interface over which its models operate. Depending on the type and size of an entity and the point in time, manufacturers and providers must ensure that either 66 or 85% of their handset models are hearing aid-compatible.¹¹³ The *Notice* proposes to allow manufacturers and service providers to meet their requirement to offer minimum numbers of hearing aid-compatible handsets with handsets certified under either the 2011 or 2019 ANSI Standards. Consequently, if adopted, small entities would not have to recertify existing handsets and incur additional compliance costs.

20. The *Notice* also proposes to simplify the current labeling requirements so that consumers will have the information that they need in order to easily understand and evaluate the hearing aid compatibility of a particular handset. The *Notice* also proposes to revise and streamline the volume control labeling requirement and seeks comment on whether the proposed revision will provide consumers with the necessary information they need to make an informed decision about a handset's volume control capabilities. The *Notice* seeks comment on whether the proposed revised labeling and disclosure requirements are straightforward and conspicuous enough for consumers to understand the hearing aid compatibility of a particular handset model. The proposal requires manufacturers and service providers to disclose to consumers the required information through clear and effective means and indicates that this requirement could be met through the use of packaging labels, user manuals and instructions, call-out cards, or other appropriate media. The *Notice* seeks comment on whether these methods of disclosure are sufficient to meet consumer needs. The *Notice* also seeks comment on whether the Commission should continue to require service providers to make handsets available for in-store testing by consumers and whether a transition period is needed before the proposed new labeling requirements become effective.

21. The *Notice* also proposes to revise section 20.19(c) to delete the "refresh" and "differing levels of functionality" requirements, which require manufacturers to refresh the hearing aid-compatible handset models they offer each year and require service providers to offer a range of hearing aid-compatible handset models with differing levels of functionality, respectively. The *Notice* seeks comment on whether these rules are necessary given the existing 66 and 85% benchmarks. Removing unnecessary provisions such as these could streamline compliance requirements, which could reduce the cost of compliance for small entities.

22. The *Notice* proposes to revise the date that service providers must file certifications of compliance with the Commission's hearing aid compatibility provisions and the date that manufacturers must file compliance reports. Presently, service provider certifications are due January 15 each year and manufacturer reports are due July 15 each year. The *Notice* proposes to move these dates to January 31 and July 31, respectively, to ensure that service provider certifications and manufacturer reports are up-to-date as of the last day of the calendar month preceding the due date of each report and certification.

23. Finally, the *Notice* proposes a technical correction of section 68.300 of the Commission's rules, which requires labeling of hearing aid-compatible telephones. When the Commission previously amended part 68 of the rules, a definition of the term "permanently affixed," which is relevant to the labeling requirement, was inadvertently deleted. Therefore, the *Notice* proposes to restore the definition with an updated version by amending section 68.300(b) to include the same definition of "permanently affixed" currently provided in section 68.502(a) of the Commission's rules.

24. Small entities may be required to hire attorneys, engineers, consultants, or other

¹¹³ 47 CFR § 20.19(c), (d).

professionals to comply with the rule changes proposed in the *Notice*, if adopted. The Commission does not believe, however, that the costs and/or administrative burdens associated with any of the proposal rule changes will unduly burden small entities. While the Commission cannot quantify the cost of compliance with the potential rule changes and compliance obligations raised in the *Notice*, in our discussion of the proposals we have requested comments from the parties in the proceeding including cost and benefit analyses to help the Commission identify and evaluate relevant matters for small entities, such as compliance costs and burdens that may result from the proposed rules and the matters on which we have requested comments.

E. Steps Proposed to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

25. The RFA requires an agency to describe any significant, specifically small business alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for such small entities; (3) the use of performance, rather than design, standards; and (4) exemption from coverage of the rule, or any part thereof, for such small entities.”¹¹⁴

26. In the *Notice*, the Commission proposes a two-year transition period during which manufacturers or service providers may comply with either the existing 2011 ANSI Standard or the 2019 ANSI Standard. This would minimize some economic impact for small entities since they would not have to immediately comply with the revised standard in the short term. The Commission seeks comment on whether this transition period is a reasonable timeframe to allow implementation of the new standard. The *Notice* also proposes to align the existing volume control deadline with the new transition deadline for the 2019 ANSI Standard. The Commission anticipates that unifying the transition dates for implementing volume control with the other elements of the 2019 ANSI Standard will create efficiencies that can benefit small entity manufacturers by allowing them to develop and test handsets meeting all components of the 2019 ANSI Standard during the same production cycle, as opposed to having an earlier deadline for the volume control element of the 2019 ANSI Standard.

27. To limit any potential burdens regarding the impact of the proposed rule change and future rule changes on previously-manufactured wireless handsets, the Commission proposes to allow handsets that have already been certified under the previous standard, as well as handsets certified under the previous standard within the transition period, to be compliant with the hearing aid compatibility rules following adoption of the 2019 ANSI Standard. This grandfathering approach should minimize the burdens associated with implementing the new standard for small entities because they will not have to recertify previously-approved handsets.

28. The *Notice* also proposes to streamline and simplify the hearing aid compatibility rules. The Commission expects that simplifying the rules, such as the labeling and disclosure rules, should ease compliance burdens for small entities. In particular, by allowing manufacturers and service providers to choose to how to meet the standard of clear and effective means such as through the use of packaging labels, user manuals and instructions, call-out cards, or other appropriate media, rather than mandating a particular method of compliance, small entities can select the approach they deem the most cost effective. Likewise, the proposal in the *Notice* to eliminate the “refresh” and “differing levels of functionality” requirements for manufacturers and service providers to refresh and offer a range of hearing aid-compatible handset models that include a mix of new and existing models should also ease compliance costs and burdens for small entities.

¹¹⁴ 5 U.S.C. § 603(c)(1)-(4).

29. The existing hearing aid compatibility rules limit the number of models that must comply with the certification requirements, especially for smaller carriers and manufacturers through the *de minimis* exceptions in the rules. The proposed rules in the *Notice* would be subject to those same limits and *de minimis* exceptions to the new certification requirements. These limits should mitigate the costs and burdens of meeting the 2019 ANSI Standard for small entities.

30. The Commission seeks to balance the potential economic impact and burdens that small entity manufacturers and service providers might face in light of the new 2019 ANSI Standard with the need to ensure that Americans with hearing loss can access a wide array of handsets with emerging technologies. Thus, in the *Notice*, the Commission seeks comment on alternative obligations, timing for implementation, and other measures including costs and benefits analyses that will allow us to more fully consider and evaluate the economic impact on small entities. The Commission will review the comments filed in response to the *Notice* and carefully consider these matters as it relates to small entities before adopting final rules in this proceeding.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

31. None.