

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

In the Matter of	)	
	)	
Amendment of Parts 0, 1, 2, and 15 of the	)	ET Docket No. 13-44
Commission’s Rules regarding Authorization of	)	RM-11652
Radiofrequency Equipment	)	
	)	
Amendment of Part 68 regarding Approval of	)	
Terminal Equipment by Telecommunications	)	
Certification Bodies	)	

**REPORT AND ORDER**

**Adopted: December 17, 2014**

**Released: December 30, 2014**

By the Commission: Commissioner O’Rielly approving in part, dissenting in part and issuing a statement.

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## I. INTRODUCTION

1. In this Report and Order, we update the Commission's radiofrequency (RF) equipment authorization program to build on the success realized by our use of Commission-recognized Telecommunications Certification Bodies (TCBs). The rules we are adopting will facilitate the continued rapid introduction of new and innovative products to the market while ensuring that these products do not cause harmful interference to each other or to other communications devices and services.

2. Specifically, in this Report and Order we:

- Discontinue FCC acceptance of applications for equipment Certification of RF equipment and instead permit TCBs to process and grant all applications for Certification;
- Codify a pre-grant approval procedure that TCBs must currently follow when certifying equipment based on new technology that requires consultation with the FCC;
- Clarify a TCB's responsibilities in performing post-market surveillance of products it has approved;
- Specify steps for addressing instances of deficient TCB performance, including appropriate sanctions for deficiencies that do not warrant rescinding a TCB's authority to issue a grant of Certification;
- Modify the rules to reference new standards used to accredit TCBs that approve RF equipment under Part 2 of the Commission's rules and terminal equipment under Part 68 of the Commission's rules;
- Require accreditation of all laboratories that test equipment subject to any of the certification procedures under Part 2 of the Commission's rules and codify a procedure through which the Commission currently recognizes new laboratory accreditation bodies;
- Update references to industry measurement procedures in the Commission's rules; and
- Provide greater flexibility under the Office of Engineering and Technology's (OET) existing delegated authority to enable it to address minor technical issues that may be raised when updating to the latest versions of industry standards that are referenced in Parts 2, 5, 15, and 18 of the Commission's rules.

## II. BACKGROUND

3. The Commission administers an equipment authorization program for RF devices under Part 2 of its rules.<sup>1</sup> The Office of Engineering and Technology (OET) administers the equipment authorization program under authority delegated to it by the Commission.<sup>2</sup> This program is one of the principal ways the Commission ensures that RF devices used in the United States operate effectively without causing harmful interference and otherwise comply with the Commission's rules. All RF devices subject to equipment authorization must comply with the Commission's technical requirements prior to importation or marketing.

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<sup>1</sup> See 47 C.F.R. Part 2 Subpart J.

<sup>2</sup> See 47 C.F.R. § 0.241(b).

4. Our rules require that equipment be authorized in accordance with one of three procedures specified in Subpart J of Part 2 of the rules described below (with certain limited exceptions).<sup>3</sup> These requirements not only minimize the potential for harmful interference, but also ensure that the equipment complies with our rules that address other policy objectives – such as RF human exposure limits and hearing aid compatibility (HAC) with wireless handsets. The specific provisions of the three procedures apply to various types of devices based on their relative likelihood of harmful interference and the significance of the effects of such interference from the particular device at issue.

**Certification**, the most rigorous process for devices with the greatest potential to cause harmful interference, is an equipment authorization issued by the Commission or grant of Certification by a recognized TCB based on an application and test data submitted by the responsible party (*e.g.*, the manufacturer or importer).<sup>4</sup> The testing is done by a testing laboratory listed by the Commission as approved for performing such work and the Commission or a TCB examines the test procedures and data to determine whether the testing followed appropriate protocols and the data demonstrates technical and operational compliance with all pertinent rules. Technical parameters and other descriptive information for all certified equipment submitted in an application for Certification are published in a Commission-maintained public database, regardless of whether it is approved by the Commission or a TCB.<sup>5</sup> Examples of devices subject to certification include, but are not limited to, mobile phones; wireless local area networking equipment, remote control transmitters; land mobile radio transmitters; wireless medical telemetry transmitters; cordless telephones; and walkie-talkies. All certified equipment is listed in a Commission database, regardless of whether it is approved by the Commission or a TCB.

**Declaration of Conformity (DoC)** is a procedure that requires the party responsible for compliance to use an accredited testing laboratory that follows established measurement protocols to ensure that the equipment complies with the appropriate technical standards.<sup>6</sup> The responsible party is not required to file an equipment authorization application with the Commission or a TCB, and equipment authorized under the DoC procedure is not listed in any Commission database. However, the responsible party must provide a test report and other information demonstrating compliance with the rules upon request by the Commission. Examples of devices subject to a DoC include personal computers and peripherals, consumer ISM equipment such as

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<sup>3</sup> See 47 C.F.R. Part 2, Subpart J, § 2.901, *et seq.* Some devices are exempt from the equipment authorization requirements, such as unlicensed digital devices used exclusively in transportation vehicles, utility or industrial plants, test equipment, appliances and medical devices. See 47 C.F.R. § 15.103. In addition, most radio receivers that tune only outside the frequency range of 30-960 MHz are exempt from equipment authorization requirements. See 47 C.F.R. § 15.101(b). Operation of these exempt digital devices and radio receivers is subject to the condition that the devices may not cause harmful interference to authorized services. See 47 C.F.R. § 15.5(b). Additionally, some devices are exempt from equipment authorization requirements by statute, such as equipment intended solely for export or marketed exclusively for use by the Federal Government. See 47 U.S.C. § 302a(c) and 47 C.F.R. § 2.807.

<sup>4</sup> See 47 C.F.R. § 2.907. Under Section 302(e) of the Communications Act, 47 U.S.C. § 302a(e), the Commission is authorized to delegate its equipment testing and certification functions to private organizations. In 1998, the Commission adopted rules allowing accredited TCBs to approve most types of equipment that require certification. *1998 Biennial Regulatory Review -- Amendment of Parts 2, 25 and 68 of the Commission's Rules to Further Streamline the Equipment Authorization Process for Radio Frequency Equipment, Modify the Equipment Authorization Process for Telephone Terminal Equipment, Implement Mutual Recognition Agreements and Begin Implementation of the Global Mobile Personal Communications by Satellite (GMPCS) Arrangements, Report and Order*, GEN Docket No. 98-68, 13 FCC Rcd 24687 (1998).

<sup>5</sup> See <http://www.fcc.gov/eas/>.

<sup>6</sup> See 47 C.F.R. § 2.906. The party responsible for compliance is defined in 47 C.F.R. § 2.909.

microwave ovens and RF light bulbs, radio receivers and TV interface devices.

**Verification** is a procedure that requires the party responsible for compliance to rely on measurements that it or another party makes on its behalf to ensure that the equipment complies with the appropriate technical standards.<sup>7</sup> The responsible party is not required to use an accredited testing laboratory. It is not required to file an application with the Commission or a TCB, and equipment authorized under the verification procedure is not listed in any Commission database. However, the responsible party must provide a test report and other information demonstrating compliance with the rules upon request by the Commission. Examples of devices subject to verification include non-consumer ISM equipment; TV and FM receivers; and business computer equipment. Devices subject to verification must be uniquely identified in a format which cannot be confused with the FCC identifier required on certified equipment.

5. In the *Notice of Proposed Rulemaking* (“*Notice*”) in this proceeding, the Commission proposed certain changes to ensure its Part 2 equipment authorization processes continue to operate efficiently and effectively.<sup>8</sup> Specifically, the Commission proposed to clarify the obligations of TCBs and to strengthen the Commission’s oversight of the TCBs. The Commission also proposed to require accreditation for all laboratories performing equipment authorization compliance tests. The Commission also proposed adopting updates to the measurement procedures used to determine RF equipment compliance. A total of 21 parties filed comments on the *Notice*, and seven parties filed reply comments. They are listed in Appendix A.

### III. DISCUSSION

#### A. TCB Program

6. TCBs currently approve more than 98 percent of equipment subject to Certification. However, TCBs are not permitted to certify equipment for which Commission rules or requirements do not exist or for which the application of the rules or requirements are unclear<sup>1</sup> – most typically in the case of new technology. Currently, OET maintains an up-to-date list of the types of equipment that a TCB is not allowed to certify and publishes this “exclusion list” on the Commission’s Knowledge DataBase (KDB) system.<sup>2</sup> To enable TCBs to certify more types of devices, OET has established a “permit-but-ask” procedure that allows a TCB to review applications for Certification of equipment that would otherwise be excluded from TCB approval, provided that OET guidance is sought prior to filing

<sup>7</sup> See 47 C.F.R. §§ 2.909(b) and 2.953.

<sup>8</sup> See *Amendment of Parts 0, 1, 2, and 15 of the Commission’s Rules regarding Authorization of Radiofrequency Equipment and Amendment of Part 68 regarding Approval of Terminal Equipment by Telecommunications Certification Bodies, Notice of Proposed Rulemaking*, ET Docket No. 13-44, 28 FCC Rcd 1606 (2013) (*Notice*).

<sup>1</sup> See 47 C.F.R. § 2.962(f)(5)(i).

<sup>2</sup> The TCB exclusion list is published in KDB Publication 628591, at <https://apps.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?switch=P&id=20247>. At the present time, there is no equipment that is excluded from certification by a TCB. OET has developed a substantial body of additional guidance that is available via public notices, frequently asked questions (FAQ’s), and specific process guidance that is compiled in our online KDB. Equipment authorization topics that relate to new services and devices authorized by the Commission are often addressed in the KDB. This includes, for example, simple answers to questions, guidance on how to file for authorization of new types of devices, and guidance on how to conduct rule compliance testing. The staff guidance provided in the KDB is intended to assist the public in following Commission requirements. The guidance is not binding on the Commission and will not preclude the Commission from making a different decision in any matter that comes to its attention for resolution.

the application for Certification. Based on information submitted from the initiating party in a permit-but-ask request, OET provides guidance on the specific test methods and technical requirements that apply to the device for which authorization is to be requested. The TCB reviews the application for Certification based on that guidance. Once a TCB has completed a review of equipment covered by the permit-but-ask procedure, it confirms with OET that appropriate measures have been taken (*e.g.*, following specified test and review procedures) to demonstrate compliance with the guidance provided by OET prior to issuing a grant of Certification.<sup>3</sup>

7. The Commission maintains a publicly-available database of all RF equipment certified by the Commission and TCBs (the Equipment Authorization System or “EAS”).<sup>4</sup> This database contains copies of applications for and grants of Certification, enabling anyone to verify that a device is approved without having to contact the TCB that approved the device to obtain the records demonstrating compliance with FCC requirements. The database also contains information on all entities recognized by the Commission in the equipment authorization process and allows the Commission to monitor the activities of TCBs and the equipment authorization program.

## 1. Certification of RF Equipment

### a. Application Processing Procedures

8. *Proposals.* In the *Notice*, the Commission proposed to allow TCBs to issue grants of Certification for all products subject to Certification,<sup>5</sup> and correspondingly proposed to eliminate the exclusion list and replace it with a codified version of the “permit-but-ask” procedure to be known as the “pre-approval guidance procedure.” Under the proposed pre-approval guidance procedure, OET would continue to identify the types of devices or types of testing for which a TCB would be required to consult with OET before issuing a grant of Certification. The TCB will perform an initial review of the application and determine the issues on which it needs to obtain guidance from the Commission. It will then contact the Commission to obtain guidance. The TCB will review the application in accordance with the Commission’s guidance to determine whether the equipment complies with the Commission’s rules. The TCB will electronically submit all exhibits to the Commission and may include a recommendation to grant or dismiss the application. OET could then conclude that the TCB should issue the grant of Certification, advise that additional information or equipment testing is required, or indicate that the equipment cannot be approved because it does not comply with the Commission’s rules.<sup>6</sup> Within the proposed pre-approval guidance procedure, OET would retain the option to require submittal of a sample of the device for pre-grant testing to confirm compliance with the rules.<sup>7</sup> Also under the new procedures, TCBs would have the specific authority to dismiss applications for failure to comply with the Commission’s Rules, for failure to comply with the TCB’s request for additional information or test samples, or pursuant to the applicant’s request.<sup>8</sup> Finally, the Commission proposed to change the Part 2 rule stating that a TCB may “rescind” a grant of certification to state that it may “set aside” a grant of

<sup>3</sup> The permit-but-ask procedure is intended to further extend the types of devices that are acceptable for issuance of a grant by a TCB, but allow FCC oversight for those types of devices that are not sufficiently technically “mature” for unrestricted TCB approval. TCBs may approve devices on the permit-but-ask list, but must obtain FCC guidance prior to approval. The permit-but-ask procedure is published in KDB Publication 388624, at <https://apps.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?switch=P&id=28319>.

<sup>4</sup> <http://www.fcc.gov/oet/ea/>.

<sup>5</sup> *Notice*, 28 FCC Rcd at 1615, para. 18.

<sup>6</sup> *Notice*, 28 FCC Rcd at 1616, para. 19.

<sup>7</sup> *Notice*, 28 FCC Rcd at 1617, para. 21.

<sup>8</sup> The dismissal of an application would be without prejudice to the applicant filing a new application under the same FCC identification number with additional or corrected information. *Notice*, 28 FCC Rcd at 1615-16, para. 18.

certification both to make the terminology consistent with the Part 1 rules and to reflect that after 30 days from the date of grant only the Commission can rescind a grant of certification.<sup>9</sup>

9. *Decision.* With broad support by commenters,<sup>10</sup> we are adopting our proposal to allow TCBs to issue all grants of equipment Certification, and to discontinue OET's acceptance and granting of applications for equipment Certification. While ARRL, the National Association for Amateur Radio (ARRL) claims that the current TCB approval process has resulted in numerous incorrect grants of Certification, it mentions only one particular instance where an incorrect grant was alleged.<sup>11</sup> Further, it has not provided any specific information to support this claim, and freely states that its concerns are [based] only on anecdotal experience.<sup>12</sup> The National Association of Broadcasters (NAB) expressed concern that equipment on the current exclusion list poses a significant potential to cause harmful interference and should continue to be certified by the Commission.<sup>13</sup> Our experience has been that TCBs have generally done an excellent job of reviewing and granting applications for Certification. TCBs have uniformly cooperated in following OET staff guidance and in responding to whatever technical questions may arise. Further, the various actions we are taking in this order to improve our oversight of the TCBs will ensure that products subject to Certification will comply with FCC rules.

10. We are eliminating the exclusion list and replacing it with pre-approval guidance procedures as proposed in the *Notice* and supported by most of the commenters who addressed this issue.<sup>14</sup> All items that were on the exclusion list or considered under the "permit-but-ask" procedure will now be considered under the pre-approval guidance procedures. Further, future changes to the devices and procedures included on the list will be made in a similar manner as the "permit-but-ask" list has been maintained, that is, via Commission/OET decision documents and OET Laboratory KDB guidance. These measures will continue the successful migration of additional responsibilities to TCBs while maintaining our control over the critical elements of the process, which addresses NAB's underlying concern that devices with a greater potential for causing harmful interference are properly evaluated before being approved.<sup>15</sup> Finally, we adopt our proposal to allow TCBs to dismiss Certification applications consistent with the Commission's current dismissal authority, as also supported by several

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<sup>9</sup> *Notice*, 28 FCC Rcd at 1616, para. 18. 47 C.F.R. § 2.962(f)(4) states that a TCB may rescind a grant within 30 days, while 47 C.F.R. § 1.113(a) uses the term "set aside" with respect to Commission actions taken under delegated authority.

<sup>10</sup> See TCB Council comments at 3, Telecommunications Industry Association (TIA) comments at 5, Hewlett-Packard Company (HP) comments at 3, Cisco Systems, Inc. (Cisco) comments at 4, American Council of Independent Laboratories (ACIL) comments at 1, and Aerospace and Flight Test Radio Coordinating Council (AFTRCC) comments at 3.

<sup>11</sup> ARRL Reply Comments at 6-7. ARRL discussed a certification grant a TCB issued to ReconRobotics, Inc., which ARRL had argued had been improperly made. In response, OET indicated that it was reviewing the grant. Letter from Julius P. Knapp, Chief, OET, to Mitchell Lazarus and Christopher D. Imlay (Jan. 11, 2011). In a subsequent Order, the Public Safety and Homeland Security Bureau noted that ReconRobotics and the TCB had addressed the issues via additional testing performed in the context of the initial application for device certification. Further, that Order also noted that the TCB had issued a subsequent certification on Oct. 11, 2011 for a different device with similar characteristics, that ARRL had not objected to that authorization, and that licensees operating pursuant to the Bureau's Order were only permitted to operate devices covered by the equipment authorization as reflected in the updated authorization file. *Applications for Public Safety Pool (Conventional) Licenses for Mobile Use of ReconRobotics Video and Audio Surveillance Systems*, File Nos. 0004270113, et. al., Order, 27 FCC Rcd 948, 954 n.47 (PSHSB 2012) (recon. pending).

<sup>12</sup> ARRL reply comments at 8.

<sup>13</sup> See NAB comments at 4.

<sup>14</sup> See TCB Council comments at 3, TIA comments at 6-7, Cisco comments at 5, and ACIL comments at 1-2.

parties.<sup>16</sup> We also amend our rules to conform the terminology used to reference a TCB's decision to take back the grant of a Certification, by uniformly employing the phrase "set aside" to describe such action by the TCB. In response to a question raised by Bay Area Compliance Laboratories Corp. (BACL),<sup>17</sup> we note that TCBs will have authority to dismiss only those applications that have been submitted to them, and not those submitted to other TCBs. Similarly, TCBs will have authority to set aside only those grants of Certification that they have issued within the prior 30 days, and not those granted by other TCBs.

### b. Application Filing Procedures

11. *Proposals.* The rules require TCBs to submit information supporting the grant of Certification upon request by the Commission, and the Commission staff has routinely requested that all exhibits demonstrating compliance with the rules must be filed in the EAS. Currently, as a uniformly followed practice, applicants provide a TCB with all information required for the TCB to determine whether the subject device complies with the Commission's equipment Certification requirements. In the *Notice*, the Commission proposed to modify Section 2.911 to codify this current practice and require, by rule, that all applicants submit all exhibits required for certifications to a TCB.<sup>18</sup> Similarly, the Commission proposed to amend Section 2.962 of the rules to specifically require that TCBs must submit to EAS a complete electronic copy of each Certification application that they process, including all exhibits and applicant certifications required by the rules, prior to issuance of a grant of Certification or dismissal of the application.<sup>19</sup>

12. The Commission further proposed that once an application is submitted to the TCB, the TCB must use the EAS to document all information relevant to the processing of the application, including TCB requests for pre-approval guidance from OET staff (which currently is often done by direct communication outside the EAS).<sup>20</sup> The Commission also proposed to modify the rules by eliminating the collection of fees related to obtaining equipment Certification that would be impacted by the proposed TCB procedures.<sup>21</sup> Finally, the Commission proposed to make a number of minor revisions to the Part 2 rules to reflect the fact that TCBs would approve all RF equipment subject to the Part 2 Certification requirement.<sup>22</sup>

13. *Decision.* With certain minor caveats as discussed below, commenters generally support

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<sup>15</sup> *Id.* Also, this addresses AFTRCC's concern that Medical Body Area Networks systems (MBANs) should be subject to the pre-approval guidance procedure (AFTRCC comments at 4).

<sup>16</sup> See TCB Council comments at 3, TIA comments at 5-6, and Cisco comments at 6.

<sup>17</sup> BACL comments at 2.

<sup>18</sup> *Notice*, 28 FCC Rcd at 1618, para. 24. The exhibits and certifications proposed to be submitted with the application include a written, signed request from the applicant for the TCB to authorize the equipment, a certification that the information provided to the TCB by the applicant is correct to the best of their knowledge, and a certification that the applicant complies with the Anti-Drug Abuse Act of 1988.

<sup>19</sup> *Notice*, 28 FCC Rcd at 1619, para. 26.

<sup>20</sup> *Notice*, 28 FCC Rcd at 1616, para. 20.

<sup>21</sup> See 47 C.F.R. § 2.913(b). See also 47 C.F.R. § 1.1103.

<sup>22</sup> *Notice*, 28 FCC Rcd at 1619, para. 27. Specifically, the Commission proposed to modify the language in the following sections to reflect its proposals that TCBs will process all Certification applications: 2.901 (Basis and purpose), 2.907 (Certification), 2.909 (Responsible party), 2.915 (Grant of application), 2.917 (Dismissal of application), 2.919 (Denial of application), 2.921 (Hearing on application), 2.924 (Marketing of electrically identical equipment...), 2.925 (Identification of equipment), 2.926 (FCC identifier), 2.927 (Limitations on grants), 2.929 (Changes in name, address, ownership or control of grantee), 2.932 (Modification of equipment), 2.933 (Change in identification of equipment), 2.947 (Measurement procedure), and 2.1043 (Changes in certificated equipment).

our proposals regarding submission of complete applications to the Commission,<sup>23</sup> and this requirement will enhance our assurance that equipment will conform to our technical rules. Accordingly, we adopt our proposals specifying how applicants will file with TCBs and how TCBs will file with the Commission, and we will require that the information provided to the Commission shall be submitted by the TCBs electronically through the Commission's EAS. Further, as discussed in more detail below, and noting the absence of specific comments, we are adopting our proposal to require TCBs to document via the EAS all information relevant to the processing of an application for certification, including pre-approval guidance inquiries and the dismissal of any applications.

14. In conjunction with our proposal to modify our application filing procedures, several parties commented on specific matters relating to the process by which applicants will file with TCBs and TCBs will file with the Commission. We address those issues here. First, we agree with HP that a TCB may combine the different statements required of applicants – such as the verification of truthfulness and compliance with the Anti-Drug Abuse Act of 1988 – into a single document with a single signature set, so long as the applicant makes all necessary certifications.<sup>24</sup> However, we do not adopt the other signature-related suggestions by HP and BACL for the following reasons. HP asks that we clarify that a TCB must accept materials submitted by an applicant in electronic form rather than paper.<sup>25</sup> While we expect that TCBs generally will accommodate electronic submissions to promote efficiency and reduce costs, we will not mandate such a requirement. Instead, we believe that being able to choose among TCBs will allow HP and other applicants the option to select a TCB on a variety of factors, including the convenience or efficiency of their provision of service.<sup>26</sup> Furthermore, we decline to adopt BACL's suggestion that we mandate the use of secure electronic signatures or require a time and date stamp on all documents submitted with the filing.<sup>27</sup> While BACL expresses concern that techniques such as the pasting of a signature on up-loadable documents could compromise the integrity of the process, we do not believe mandating its suggested requirements will fully resolve the issues of authenticity. We instead expect TCBs to establish appropriate procedures to determine the veracity of documents.<sup>28</sup>

15. We do not believe that the additional requirement suggested by Northwest EMC, Inc. – that a TCB confirmation of the authenticity of test reports that are submitted with an application for certification and – is necessary.<sup>29</sup> Because a TCB is currently expected to review submitted tests in a manner that allows it to be “confident that the product meets the relevant requirements before it certifies the product,” we already provide sufficient guidance in this regard.<sup>30</sup> In addition, as discussed below, we are adopting an accreditation requirement for all laboratories to ensure that the data reviewed by TCBs in order to determine compliance with our rules is based upon testing that was performed by a competent organization. For these reasons, we find that Northwest EMC's proposals would impose new costs with

<sup>23</sup> See TIA comments at 8 and Cisco comments at 7.

<sup>24</sup> HP comments at 3.

<sup>25</sup> *Id.*

<sup>26</sup> We emphasize that, regardless of the form in which it accepts applications, the TCB may only file with the Commission electronically.

<sup>27</sup> Bay Area Compliance reply comments at 2.

<sup>28</sup> In general, our rules define an electronic signature as a typed name of the applicant that is then electronically transmitted via a specified filing system, and do not address any required security features or verification data that may be associated with the signature. See, e.g., 47 C.F.R. §§ 1.917(d), 1.1703(h) and 1.10011(a).

<sup>29</sup> See Northwest EMC, Inc. comments at 1. Northwest EMC, Inc. also suggested that we require that all foreign applicants must have a U.S. resident as a legal representative. While such a requirement was not proposed in the *Notice*, we anticipate considering this issue in the context of an upcoming rulemaking proceeding. Accordingly, we will defer further consideration of this matter until then.

<sup>30</sup> See KDB Publication 641163 at 10-11.



little or no benefit in return. Finally, Cisco and HP raised concerns that TCBs could potentially establish higher fees to expedite the processing of applications.<sup>31</sup> While we observe that Cisco and HP have not provided evidence to support their concern, we note that there are currently 36 TCBs recognized by the Commission to provide equipment authorization services and clients can choose their TCB based upon a variety of factors most relevant to them, including experience, speed, and cost. Thus, we do not believe it is necessary to codify any TCB fee requirements.

16. We will stop accepting applications for the Commission to issue the grant of Certification as of the effective date of the Report and Order and will modify Section 1.1103 of the rules to remove the equipment authorization services sections related to Certification as all of the processes under the Certification section will no longer be handled by the Commission, and no fee will be charged by the Commission when a TCB issues a grant of Certification. Applications received prior to the effective date will be reviewed following the current review procedures and approved if compliant with all requirements. Finally, we also adopt the proposed TCB process changes and amend the various sections of Part 2 that required updating to reflect the TCB role in the Certification process, as modified herein.<sup>32</sup>

17. It has come to the attention of the Commission that some TCBs have modified copies of grants of certification to add letterheads, logos or other information, thus producing documents that differ from the version publicly available on the Commission website. Grants of certification are legal documents created by the TCB under the authority of the Commission when submitted to EAS, and must not be modified (by, for example, adding a letterhead or additional information) in any way. Copies of the grant will continue to be publicly available on the Commission's website.

## 2. Post-Market Surveillance

18. *Proposals.* TCBs are required to be accredited, and accreditation is conditioned on their performance of post-market surveillance on products that it has certified.<sup>33</sup> Section 2.962(g) of the Commission's rules provides general guidance regarding the scope of such post-market surveillance and the actions the TCB shall take in the event of a compliance problem. Specifically, Section 2.962(g) requires TCBs to conduct post-market testing in accordance with ISO/IEC Guide 65.<sup>34</sup> Pursuant to its delegated authority under the Commission's rules,<sup>35</sup> OET has developed specific procedures that TCBs can use for performing post-market surveillance. These procedures are detailed in KDB Publication 610077. The current guidance specifies a sample rate of at least 5 percent.<sup>36</sup> In the *Notice*, the Commission proposed to modify the rules on post-market surveillance to define the responsibilities of TCBs more clearly. In addition, it proposed to modify Section 2.962 to refer to the KDB document on TCB post-market surveillance requirements, and indicate that this guidance will be updated as needed to provide specific information, such as the number and types of samples that a TCB must test to meet Commission requirements as set forth in the rules.<sup>37</sup> It further proposed to merge six different rule sections in Part 2 of the rules that address the submission of equipment samples for testing into a single

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<sup>31</sup> See TIA comments at 7 and Cisco comments at 6-7.

<sup>32</sup> Two additional sections that were initially identified ultimately will not require modification: Sections 2.919 (Denial of application) and Section 2.921 (Hearing on application).

<sup>33</sup> See ISO/IEC 17065, clause 7.9 *Surveillance*. Post-market surveillance is a process used to ensure that equipment sold in the marketplace is consistent with equipment measured for compliance. This surveillance is achieved by sampling devices on the market and measuring the equipment characteristics and then comparing to the characteristics of the equipment measured during the Certification process.

<sup>34</sup> 47 C.F.R. § 2.962(g)(2).

<sup>35</sup> See 47 C.F.R. § 0.241(g).

<sup>36</sup> See KDB Publication [610077](#). This publication provides guidance on the post-market surveillance requirements for TCBs that certify terminal equipment as well as those that certify RF equipment.

<sup>37</sup> *Id.* See also *Notice*, 28 FCC Rcd at 1620, para. 30.

rule section.<sup>38</sup>

19. The Commission also proposed to codify the current procedure whereby TCBs may request samples of equipment that they have certified directly from the grantee of Certification.<sup>39</sup> Additionally, because OET may sometimes have concerns about interference or equipment non-compliance, the Commission proposed that OET may send a sample request directly to the grantee of Certification and request that the grantee submit a sample directly to the TCB that issued the grant of Certification.<sup>40</sup> The Commission also proposed a process to ensure that grantees comply with TCB requests for samples, providing that failure to comply with a TCB request could lead to Commission enforcement action.<sup>41</sup> The Notice specifically proposed to require TCBs to immediately notify the grantee and the Commission if it determines that a device fails to comply with the Commission's rules.<sup>42</sup> In such instances, the grantee would be required to take corrective actions and the TCB would submit a follow-up report on these actions to the Commission within 30 days.<sup>43</sup> In addition to this specific reporting requirement, the Commission also proposed to require TCBs to submit periodic reports of their post-market surveillance activities and findings to OET.<sup>44</sup>

20. The Commission sought comment on several additional post-market surveillance issues. Specifically, it requested comment on whether there should be cross-checking among TCBs, that is, one TCB would test equipment for which another TCB issued the grant of Certification.<sup>45</sup> It also asked for comment on ways that the Commission could obtain samples from the retail market, such as by using a voucher supplied by the grantee or selecting a sample at random from a distributor's inventory.<sup>46</sup> The Commission further sought comment on how it could obtain any special software required for testing unmodified production devices that it obtains from the market.<sup>47</sup>

21. *Comments.* Commenters provided input on all aspects of the proposed post-market surveillance process. While some filers indicated support for TCBs testing devices that were approved by other TCBs,<sup>48</sup> others opposed cross-checking on the general grounds that the process could lead to attempts to gain competitive advantage or other abuses.<sup>49</sup> Other commenters addressed the scope of the post-market surveillance requirement. With regard to the sampling rate, two parties, Marcus Spectrum Solutions, LLC (Marcus) and Cohen, Dippell and Everist, P.C. (Cohen, Dippell and Everist) citing experiences with non-compliant devices, suggest a higher sampling rate: specifically Marcus suggests a 10-25 percent sample rate.<sup>50</sup> On the other hand, the TCB Council suggests that when the sample rate was previously increased in the KDB guidance from 2 percent to 5 percent the non-compliance rates were not

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<sup>38</sup> *Id.* The six rule sections are 47 C.F.R. §§ 2.936, 2.943, 2.945, 2.946, 2.956 and 2.1076.

<sup>39</sup> *Id.*

<sup>40</sup> *Notice*, 28 FCC Rcd at 1620, para. 31.

<sup>41</sup> *Id.*

<sup>42</sup> *Notice*, 28 FCC Rcd at 1621, para. 32.

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

<sup>45</sup> *Notice*, 28 FCC Rcd at 1621, para. 33.

<sup>46</sup> *Id.*

<sup>47</sup> *Id.*

<sup>48</sup> Marcus Spectrum Solutions, LLC comments at 8, Northwest EMC, Inc. comments at 1, and TIA comments at 9-10.

<sup>49</sup> HP comments at 4-5 and American Association for Laboratory Accreditation (A2LA) comments at 1.

<sup>50</sup> Marcus comments at 7 and Cohen, Dippell and Everist comments at 2.

reduced.<sup>51</sup> The TCB Council also suggests that changes in FCC IDs and permissive changes should be excluded from the post-market surveillance process.<sup>52</sup> HP expressed concerns that TCBs could increase auditing in an effort to increase revenue and it suggest that the Commission codify a requirement that a TCB report the criteria for requesting a specific device be sampled.<sup>53</sup> With regard to sample requests, some parties indicated a preference that all such requests should come from the Commission rather than the TCBs.<sup>54</sup>

22. Other comments related to the testing of the samples and the process for dealing with non-compliance. For example, dB Technology expressed concern that, given the time to comply with a sample request, a manufacturer could easily submit a “golden sample,” that is a device produced to a more precise specification than that routinely marketed by the manufacturer. Furthermore, dB Technology asserts that a TCB has no incentive to fail a product that it previously approved.<sup>55</sup> Marcus suggests that each sample should be accompanied by a certification that the device was “taken from normal wholesale or retail inventory without modification and without any selection based on performance testing.” Further, Marcus suggests that a fraudulent submission should be subject to criminal penalties.<sup>56</sup> In the event that a device is found non-compliant, TIA states that the equipment used and testing methods should be disclosed to the grantee.<sup>57</sup> Cisco Systems would allow a grantee to challenge a finding of non-compliance and address whether the determination of non-compliance is based on changes in the testing methodology.<sup>58</sup> Cohen, Dippell and Everist states that a finding of non-compliance should result in the device being immediately removed from the market, with refunds issued to consumers at the point of sale.<sup>59</sup> Further, Cohen, Dippell and Everist raises concerns related to how non-compliance issues will be resolved in the event that offshore suppliers are unresponsive or cannot be found, a retailer marketing the devices is no longer in business, or a TCB is no longer operating.<sup>60</sup>

23. Some comments addressed specific aspects of our proposals or included unique proposals. HP and TIA express support for the Commission to obtain samples via a gift card or voucher provided by the manufacturer.<sup>61</sup> As a more dramatic alternative, dB Technology proposes that the Commission discontinue the current equipment authorization processes altogether, and instead require manufacturers to assume the responsibility for compiling a database demonstrating compliance with the Commission rules, which they would then submit to the TCBs with a fee that would be used by the TCBs to fund the TCBs’ post-market surveillance. TCBs would review the information in a manufacturer’s submitted database to the extent necessary to fulfill their post-market surveillance obligations.<sup>62</sup> The TCB council suggests that each Certification include a “USA Representative” who would be responsible for submission of post-grant samples.<sup>63</sup>

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<sup>51</sup> TCB Council comments at 5.

<sup>52</sup> *Id.* at 4-5.

<sup>53</sup> HP comments at 4.

<sup>54</sup> A2LA comments at 1, American Council of Independent Laboratories (ACIL) comments at 2, and TCB Council comments at 4.

<sup>55</sup> dB Technology comments at 3.

<sup>56</sup> Marcus comments at 6.

<sup>57</sup> TIA comments at 9.

<sup>58</sup> Cisco comments at 8.

<sup>59</sup> Cohen, Dippell and Everist comments at 2.

<sup>60</sup> Cohen, Dippell and Everist reply comments at 2-3.

<sup>61</sup> HP comments at 5 and TIA comments at 10.

<sup>62</sup> dB Technology comments at 3.

24. *Decision.* We adopt our proposals to codify the guidelines currently appearing in the KDB for conducting post-market surveillance, placing them into Section 2.962 of the Commission's rules as mandatory requirements. As incorporated in the new Section 2.962, the referenced KDB guidance will address the amount of surveillance required, the responsibilities related to testing, the timing and content of periodic reports required to be submitted to the Commission, and other pertinent requirements. Additionally, all Part 2 rules referring to the post-market sampling process will be consolidated into Section 2.945. There was broad consensus that post-market surveillance mechanisms are beneficial, and we believe requiring the TCBs to conduct post-market surveillance will increase the assurance that the products in the marketplace comply with our rules and will not cause harmful interference. Thus, we find that our action furthers the public interest. We now address concerns that were raised by commenters regarding specific process-related issues, including concerns about any potential TCB bias towards choosing to perform post-market surveillance testing only on devices the TCB is certain will pass. As has been the case from the outset, TCBs currently perform their own post-market surveillance in accordance with the rules and procedures that the Commission has established to ensure impartial audits.<sup>64</sup> The concerns raised in the record persuade us that there would be little benefit in allowing a TCB to perform post-market surveillance on a device that it did not certify and this could lead to significant complications, including the potential for anti-competitive behavior where one TCB raises doubt about the performance of another, whether it is ultimately justified or not.<sup>65</sup> Accordingly, we will require that TCBs shall perform post-market surveillance only on devices for which they issued the grant of Certification. In addition to performing post-market surveillance on devices selected by the TCB, we are also adopting our proposal that OET may select samples for the TCB to test. This would serve to ameliorate concerns that a manufacturer could provide or a TCB could select "golden samples" that are unlikely to raise questions about the original grant of Certification. We agree with Cisco's comment that the grantee has a right to challenge a TCB's finding that a device does not comply with the FCC rules. In such cases, the grantee will be provided with appropriate information about test results and methodologies. The Commission will be the final arbiter in cases where a TCB and grantee are not able to resolve disagreements about compliance.

25. We continue to believe that a sample rate of at least 5 percent of all of a TCB's certified devices as specified in our guidance is an appropriate amount to assure an acceptable level of compliance. TCBs currently conduct post-market surveillance based on at least 5 percent of the devices they certify, and, in our monitoring of the market surveillance performed by TCBs, we have found the vast majority of devices to be compliant. In the rare cases where post-market surveillance testing of a device finds it to be non-compliant, OET has performed further investigation and has typically found that such devices become non-compliant for reasons such as changes to the manufacturing process, including the introduction of replacement parts when suppliers change. Once it identifies this type of situation, OET works with the grantee to resolve the matter and ensure compliance with our rules. In any event, when it has discovered manufacturers that are willfully non-compliant with our equipment authorization procedures, the Commission has not hesitated to take enforcement action.<sup>66</sup> No commenter that supported

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<sup>63</sup> TCB Council comments at 5.

<sup>64</sup> *TCB Order*, 13 FCC Rcd at 24706-07, paras. 44-45.

<sup>65</sup> We note that TCBs have significant incentive to retain their reputation and standing as well as their authority to perform certifications, and we have no evidence that TCBs have failed to uphold their responsibility in this regard. The number and variety of TCBs will continue to afford competitors the opportunity to observe each other's activities and products and provides a check on non-compliant equipment, providing a concrete disincentive for a TCB to subvert the process, and the Commission can take action against a careless or irresponsible TCB if one were to emerge.

<sup>66</sup> See e.g., *InterTech FM, Forfeiture Order*, File No: EB-08-SE-052, Spectrum Enforcement Division, Enforcement Bureau, 28 FCC Rcd 200 (2013) and *Leetek America, Inc., A Subsidiary of Lee Technology Korea, Co. Ltd., Memorandum Opinion and Order*, File No. EB-07-SE-132, Enforcement Bureau, 27 FCC Rcd 13487 (2012).

modifying this 5 percent sample size requirement provided sufficient evidence to justify either increasing or decreasing this number. Similarly, with regard to the TCB Council's suggestion that permissive changes and changes in FCC IDs not be included in the sampling process, we note that the request did not include any actual filing totals that would quantify how the proposed change would affect the post-market surveillance burden of a given TCB.<sup>67</sup> Further, even had they demonstrated that such filings represent a substantial number of applications; we observe that many products are updated via permissive changes, and it is not apparent that excluding a wide segment of applications would further improve the compliance process.<sup>68</sup> Finally, the inappropriate use of a permissive change or an FCC ID change presents the opportunity for the introduction of non-compliant equipment, and accordingly should be monitored by inclusion in the sampling activity.

26. We proposed that TCBs contact grantees directly for samples of devices that the TCB certified. We recognize the commenters' concerns that grantees may be less likely to comply with a TCB request as opposed to one that came from the Commission. In this regard, we note that, while the TCBs will continue to directly request samples from grantees, it is our intention to add a process to the EAS that allows TCBs to initiate a sample request from the Commission's EAS. This will allow the FCC to oversee the process, follow up directly with non-responsive grantees and improve the responsiveness of grantees.

27. Several commenters expressed concerns that samples provided for testing will not be appropriately representative of the marketed device. As discussed above, similar to the TCB's responsibility when reviewing test data, TCBs must have confidence in the results of all compliance activities.<sup>69</sup> Within the specific guidance for post-market surveillance, it is recommended that "sufficient testing shall be performed to allow the TCB to evaluate those requirements most likely to be in non-compliance" and, to the extent that the TCB outsources testing of samples, proper testing is ultimately the TCB's responsibility.<sup>70</sup> Additionally, under penalty of revocation of the grant of Certification, grantees must not make false statements or representations in response to any request made in the context of its Certification.<sup>71</sup> Taken as a whole, the requirements placed upon both the TCBs and the grantees should be sufficient to ensure that equipment samples are submitted and processed in a manner that ensures valid post-market surveillance. Thus, we do not agree with the suggestion that additional steps, such as criminal sanction or consumer refunds, are necessary. Several commenters supported the proposal of vouchers and/or selecting samples randomly from the distribution line, and we agree that this would help ensure that devices being post-market tested are representative of the devices being marketed. For this reason, we are adopting the requirement that grantees, upon request, must provide a voucher to the Commission or the TCB which authorizes the TCB to obtain a sample of the product from the marketplace at no cost to the Commission or TCB. As an alternative to providing a voucher, the grantee can allow the Commission or TCB to select a product randomly from the manufacturing or warehousing location. Furthermore, if special software or specialized mechanisms, methods, or modifications are

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<sup>67</sup> An application for change in FCCID is required when a grantee wants to market the same device under multiple FCCIDs. The information required for a change in FCCID is a subset of that required for an original certification and is specified in 47 C.F.R. § 2.933. Permissive change applications are required when a previously-authorized device is modified from the original approval in a manner that will allow it to continue to be marketed under the same FCCID. The information required for a permissive change is specified in 47 C.F.R. § 2.1043. KDB Publication [178919](#) provides additional guidance on permissive changes.

<sup>68</sup> We note that a very small number of the same devices are subject to repeated permissive changes or changes in ID within the same surveillance year. Further, since a TCB is responsible for developing its own surveillance program, it already has the discretion to not re-test a device that it recently sampled.

<sup>69</sup> See para. 15, *supra*.

<sup>70</sup> KDB Publication 610077 at 3.

<sup>71</sup> See 47 C.F.R. § 2.939(a)(1).

required to test such unmodified production devices, the manufacturer must make these available (at no cost) along with any necessary instructions to the Commission or TCB upon request. In the case of expensive devices manufactured in limited numbers, the responsible party can negotiate with the TCB or the Commission for alternative means of providing a sample or providing a testing opportunity.

### 3. Assessing TCB Performance

#### a. Designating Authority

28. *Background.* An entity seeking recognition from the Commission as a TCB entitled by the FCC to issue grants of Certification must first be accredited by a Commission-recognized accreditation body as meeting applicable international standards and any additional Commission requirements.<sup>72</sup> Subsequent to accreditation, the TCB would then apply to a recognized Designating Authority in its country that would designate it to the Commission for recognition.<sup>73</sup> The Designating Authority evaluates the qualifications of prospective TCBs to ensure that they comply with all of the Commission's TCB requirements, and then designates them to the Commission via the EAS. TCBs in all countries follow the same process. However, the Designating Authorities are different for different countries. In the United States, the National Institute of Standards and Technology (NIST) is the designating authority.<sup>74</sup> TCBs outside the United States must be accredited and designated by an authority recognized by the Commission under the terms of a Mutual Recognition Agreement.<sup>75</sup> For both foreign and domestic TCBs,<sup>76</sup> once the Commission receives the Designating Authority's designation, the Commission performs a review of the TCB's qualifications and recognizes those that it determines meet the requirements. A recognized TCB will then be included on the Commission's publicly- available recognized TCB list.<sup>77</sup>

29. *Proposals.* In the *Notice*, the Commission proposed to revise Sections 2.960(b) and 68.160(b) of the rules to state with clarity that NIST is the recognized Designating Authority for TCBs within the United States (which is consistent with existing practice).<sup>78</sup> The Commission also proposed that NIST would continue to have authority to recognize other organizations to accredit TCBs.<sup>79</sup> It also proposed that an organization designated by NIST as a TCB would have to be recognized by the Commission before it could function as a TCB, and that the Commission could withdraw its recognition

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<sup>72</sup> A TCB must demonstrate expert knowledge of the regulations for each product type for which it seeks recognition; recognize when interpretations of the rules or test procedures are necessary and demonstrate knowledge of how to obtain current and correct interpretations; and participate in consultative activities identified by the Commission to establish a common understanding and interpretation of the regulations. See 47 C.F.R §§ 2.962(c)(2) - 2.962(c)(5). A prospective TCB must demonstrate its knowledge and expertise to the organization that performs the accreditation for compliance with ISO/IEC Guide 65. The Commission has prepared a checklist of the subject areas that accreditors must assess. See TCB Technical Assessment Evaluation Form at <http://www.fcc.gov/ea>. Assessors may ask additional questions not on this checklist to determine a prospective TCB's technical competence.

<sup>73</sup> Designating Authority and accreditation body may be the same entity but are not required to be.

<sup>74</sup> NIST, in turn, recognizes ANSI and A2LA to accredit prospective TCBs.

<sup>75</sup> See 47 C.F.R §§ 2.962(a) and 2.962(c)(1). Mutual Recognition Agreements (MRAs) are government-to-government trade facilitating measures aimed at a global approach to conformity assessment. In these agreements, the regulatory authorities in the participating countries mutually agree to accept the test results and/or product approvals performed by recognized Conformity Assessment Bodies (CABs).

<sup>76</sup> See 47 C.F.R. § 2.960(b).

<sup>77</sup> The list of TCBs recognized by the Commission is available at <http://www.fcc.gov/oet/ea>.

<sup>78</sup> *Notice*, 28 FCC Rcd at 1623, para. 38. This change is being made to use consistent terminology to describe the process for the designation, accreditation and recognition for domestic and foreign TCB.

<sup>79</sup> *Id.*

of a TCB designated by NIST that does not operate in accordance with the rules.<sup>80</sup> Additionally, the Commission proposed certain other modifications to clarify the Part 2 rules for TCBs. Specifically, it proposed to modify Section 2.962(e)(1) to specify the recognition requirements for both foreign and domestic TCBs.<sup>81</sup> It also proposed to move the text in Section 2.962(h) concerning disputes over the recognition of foreign TCBs to Section 2.962(e) because it more appropriately fits in that paragraph which addresses the recognition of TCBs.<sup>82</sup> These proposals were intended to make the designation and recognition requirements for domestic and foreign TCBs more consistent, in that in both cases the Commission would rely on other organizations to accredit and designate TCBs, but would reserve the ultimate determination of whether to recognize a designated TCB before permitting that TCB to operate.

30. *Decision.* All comments that addressed this issue supported our proposals to codify NIST's role as the TCB Designating Authority for TCBs located in the United States and to clarify our rules related to the recognition of foreign TCBs.<sup>83</sup> In light of our continued belief that codifying our existing practice will provide clarity to the overall process, we will adopt the proposals set forth in the Notice.

#### **b. TCB Performance**

31. *Background.* Currently, if the Commission has concerns regarding the performance of a TCB, it may initiate action to verify the TCB's technical competence and understanding of the Commission's requirements. In particular, the rules state that the Commission will withdraw recognition of a domestic TCB if the TCB's accreditation or designation is withdrawn, if the Commission determines there is just cause for withdrawing the recognition, or if the TCB no longer wants the recognition.<sup>84</sup> If an organization wishes to reapply to be a TCB following withdrawal of its designation or recognition, it must complete a new evaluation and accreditation process to demonstrate that it meets the designation criteria, which can be a lengthy and complex process. The rules do not specify any action less severe than the withdrawal of the designation or recognition of a TCB if the Commission has concerns about the performance of a TCB.<sup>85</sup>

32. *Proposals.* In the *Notice*, the Commission acknowledged that there can be performance issues which need correcting but do not warrant complete withdrawal of a TCB's recognition. Thus, it proposed measures that the Commission could take to address TCB performance issues. Under its proposal, if there is evidence that a TCB is not approving equipment in accordance with the Commission's rules and policies, as an initial step, OET would send the TCB a notification to correct any apparent deficiencies.<sup>86</sup> Until the TCB responds to this notification, OET may choose to monitor all grants, setting aside any that were granted in error in accordance with the 30-day period provided for in the rules.<sup>87</sup> In the event that the TCB does not adequately address all identified deficiencies, we also proposed the option of requiring that all Certification applications filed with that TCB would be processed using the pre-approval guidance procedure for a period of at least 30 days.<sup>88</sup> The Commission further proposed that it would provide a TCB with 30-day notice if it intended to implement this restriction,

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<sup>80</sup> *Id.*

<sup>81</sup> *Notice*, 28 FCC Rcd at 1624, para. 41.

<sup>82</sup> *Id.*

<sup>83</sup> A2LA comments at 1, Cisco comments at 9, and TCB Council comments at 8.

<sup>84</sup> *See* 47 C.F.R. § 2.962(e)(2).

<sup>85</sup> *Id.*

<sup>86</sup> *Notice*, 28 FCC Rcd at 1623-24, para. 39.

<sup>87</sup> *Id.* *See also* 47 C.F.R. § 1.113(a).

<sup>88</sup> *Id.*

unless there is good cause to require a more immediate implementation of this protective measure.<sup>89</sup> In addition, the Commission proposed that once a TCB demonstrates that it is again processing Certification applications in accordance with the rules, it would be permitted to resume normal processing.<sup>90</sup> These proposed procedures would apply equally to both domestic and foreign TCBs.<sup>91</sup>

33. The Commission proposed that if a TCB continues to exhibit performance deficiencies after a Commission request for corrective action, it could refer the case to the Designating Authority and accreditation body for investigation and identification of any necessary corrective actions.<sup>92</sup> The Commission also proposed a process to take further actions against the TCB based on the Designating Authority's and/or the accrediting body's response. Such Commission actions include limiting the scope of equipment that a TCB could approve or withdrawing its recognition of the TCB so that it could no longer certify equipment.<sup>93</sup> The Commission further proposed that it would no longer recognize the designation of a TCB, either foreign or domestic, if good cause exists, *e.g.*, a TCB shows a pattern of certifying equipment that is clearly not in compliance with the Commission's rules.<sup>94</sup> In the case of a TCB recognized pursuant to the terms of a Mutual Recognition Agreement (MRA),<sup>95</sup> the Commission proposed similar actions under the terms of the pertinent MRA.<sup>96</sup> Finally, the Commission proposed that, regardless of the TCB's status, any equipment Certifications previously approved by the TCB would remain valid unless specifically set aside or revoked by the Commission.<sup>97</sup>

34. *Comments.* A number of parties support the proposals to address deficient TCB performance.<sup>98</sup> For example, A2LA agrees that the Commission should have the authority to require TCBs to use the pre-approval guidance procedure for all applications for a period of time, and Cisco states that the Commission should have authority to take corrective steps less drastic than withdrawal of recognition, including written notice and opportunity to correct deficiencies, monitoring of grants, or use of the pre-approval guidance procedure.<sup>99</sup> However, A2LA believes that 60-day notice of the Commission's intent to withdraw a TCB's recognition is too long, and that 30 days is more appropriate.<sup>100</sup> AFTRCC requests that the Commission make clear that it will consider revoking a TCB's authority when performance failures are discovered.<sup>101</sup> NAB states that the Commission should consider ways to make the TCB oversight and equipment approval process more transparent and open by making the results of Commission audits of TCB performance public and information from TCB conference calls and workshops more widely available and accessible.<sup>102</sup>

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<sup>89</sup> *Id.*

<sup>90</sup> *Id.*

<sup>91</sup> *Id.*

<sup>92</sup> *Notice*, 28 FCC Rcd at 1624, para. 40.

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

<sup>95</sup> *See supra* n.83 (describing MRAs).

<sup>96</sup> *Id.*

<sup>97</sup> *Id.*

<sup>98</sup> *See* A2LA comments at 2, TCB Council comments at 6, TIA comments at 10, and Cisco comments at 8-9.

<sup>99</sup> *See* A2LA comments at 2 and Cisco comments at 9.

<sup>100</sup> *See* A2LA comments at 2.

<sup>101</sup> *See* AFTRCC comments at 4.

<sup>102</sup> *See* NAB comments at 5-6.



35. *Decision.* We adopt the proposed procedures for addressing TCB performance issues for TCBs issuing grants of Certification not in compliance with Commission requirements. While we do not adopt A2LA's suggestion that the 60-day notice of the Commission intent to withdraw a TCB's recognition be reduced routinely to 30 days, we are amending our rules to provide, as proposed; that the Commission may reduce the notice period if circumstances so warrant, for instance if the TCB's actions raise an immediate concern regarding its capability or its intention to comply with all rules and procedures to ensure appropriate certification of devices. Furthermore, if the situation warrants, there are numerous other sanctions that the Commission can impose, including requiring the TCB to follow the pre-approval guidance procedure for all applications for certification before they can be granted. We can also impose an immediate suspension of recognition, if necessary. We acknowledge AFTRCC's concerns and believe that the procedures set forth are a clear indication of the Commission's willingness to address TCB performance issues by taking all necessary steps up to and including revocation of a TCB's recognition. Finally, regarding NAB's suggestions related to the overall transparency of the TCB process, we note that any finding that a TCB is non-compliant will be displayed on the Commission's website.<sup>103</sup> Additionally, to ensure that all TCBs stay current with rules and staff interpretations, OET participates in workshops where TCBs are also required to attend regularly. At these workshops OET presents changes and updates in the Commission rules; equipment authorization process and procedures; and updates to technical interpretations or guidance issued by the staff. These presentations are publicly available at the Commission's website, and include Commission guidance related to new or clarified TCB processes and procedures.<sup>104</sup> Much of this guidance is the result of observations that OET derives from TCB audits and other information. Considered on the whole, we believe that the information made publicly available about the TCB program adequately addresses NAB's concerns.

#### 4. TCB Accreditation

36. *Proposal.* The rules currently require that TCBs that approve either RF equipment under Part 2 or terminal equipment under Part 68 of the Commission's rules meet the accreditation standards in specific ISO/IEC standards.<sup>105</sup> Subsequent to the adoption of the rules specifying these requirements, several ISO/IEC guides were updated.<sup>106</sup> In the *Notice*, the Commission proposed to modify the rules in

<sup>103</sup> We will incorporate this information into OET's existing equipment authorization homepage ([www.fcc.gov/oet/ea](http://www.fcc.gov/oet/ea)).

<sup>104</sup> See <http://transition.fcc.gov/oet/ea/presentations>.

<sup>105</sup> An entity recognized as a TCB must be accredited as meeting all appropriate specifications in ISO/IEC Guide 65, *General requirements for bodies operating product certification systems*, for the scope of equipment that it will certify. See 47 C.F.R. §§ 2.962(c)(1) and 68.162(c)(1). An organization accrediting a prospective TCB to Guide 65 must be capable of meeting the requirements and conditions of ISO/IEC Guide 61, *General requirements for assessment and accreditation of certification/registration bodies*. See 47 C.F.R. §§ 2.960(c)(1) and 68.160(c)(1). TCBs also must be accredited as meeting the requirements of ISO/IEC Standard 17025, *General Requirements for the Competence of Calibration and Testing Laboratories*. The organization accrediting a TCB or testing laboratory to ISO/IEC 17025 must be approved by OET to perform such accreditation based on ISO/IEC Guide 58, *Calibration and testing laboratory accreditation systems -- General requirements for operation and recognition*. See 47 C.F.R. § 2.948(d). A TCB that approves RF equipment under Part 2 must be reassessed for continuing accreditation at intervals not to exceed two years. See 47 C.F.R. § 2.962(c)(7).

<sup>106</sup> Specifically, ISO/IEC Guides 58 and 61 were updated and combined into a single new standard, ISO/IEC 17011, *Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies*. ISO/IEC 17011 was prepared by the ISO Committee on conformity assessment (CASCO) because the work performed by accreditation bodies accrediting testing laboratories and certification bodies is quite similar, and the two separate standards had two sets of largely repetitious but slightly differing requirements for evaluating laboratory and certification body functions. In addition, ISO/IEC Guide 65 was replaced with a revised version designated ISO/IEC 17065, *Conformity assessment - Requirements for bodies certifying products, processes and services*.

Parts 2 and 68 to reflect these updates. Specifically, the Commission proposed replacing references to Guide 58 and Guide 61 with references to ISO/IEC 17011, and to replace references to Guide 65 with references to ISO/IEC 17065.<sup>107</sup> The Commission also proposed to change the term “sub-contractors” to “external resources” in the Part 2 and 68 rules for consistency with the revised ISO/IEC 17065. The Commission also proposed to update Section 68.162 to correct outdated references to ISO/IEC Guide 25, which is now designated ISO/IEC 17025.

37. *Comments.* Several parties support the Commission’s proposal to reference the current ISO guides in the rules.<sup>108</sup> Additionally, A2LA recommends that Certification bodies accredited as meeting the standards of ISO/IEC Guide 65 be provided a transition period until September 15, 2015 to comply with ISO/IEC 17065, based upon the recommendation of the International Accreditation Forum (IAF) The TCB Council recommends “appropriate transition periods” that will “allow the [accrediting bodies] to have time to convert all the TCBs from the current standards to the newer standards” but does not specify the dates or the guides to which such dates should apply.<sup>109</sup> No party objected to the Commission’s proposal to change the term “sub-contractors” to “external resources” in the Part 2 and 68 rules.

38. *Decision.* We are adopting our proposals to include updated ISO/IEC Guide references in our Parts 2 and 68 rules, and will require that the standards be met by September 15, 2015. This date was suggested by A2LA, and conforms to the compliance date for ISO/IEC 17065 that was adopted in an International Accreditation Forum decision.<sup>110</sup> Finally, we are also changing the term “sub-contractors” to “external resources” in the Part 2 and 68 rules for consistency with the revised ISO/IEC 17065.

## **B. Test Laboratories**

### **1. Accreditation of Test Laboratories**

39. *Background.* The equipment authorization rules (*i.e.* Certification, DoC, and Verification) specify the type of testing facility in which a product shall be tested in order to demonstrate compliance with the technical standards. For certain devices, the testing must be performed at facilities with qualifications acknowledged by OET. OET maintains separate records of two types of qualified testing laboratories, “accredited” and “2.948-listed.”<sup>111</sup> Devices authorized under the DoC process must be tested at a testing laboratory that is recognized as accredited by OET. Devices authorized under the Certification process that operates under Part 15 or 18 of the rules must be tested in a facility that is either accredited or 2.948-listed. For other types of devices, the rules allow for testing at any capable facility and the party responsible for compliance of the device must retain the details of the tests (including

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<sup>107</sup> Notice, 28 FCC Rcd at 1624, para. 44.

<sup>108</sup> See A2LA comments at 2, TCB Council comments at 6 and TIA comments at 11.

<sup>109</sup> See A2LA comments at 2 and TCB Council comments at 6. IAF is an international association of Conformity Assessment Accreditation Bodies and other bodies interested in conformity assessment in the fields of management systems, products, services, personnel and other similar programs of conformity assessment. Its primary function is to develop a single worldwide program of conformity assessment which reduces risk for business and its customers by assuring them that accredited certificates may be relied upon. See <http://www.iaf.nu/>.

<sup>110</sup> ISO/IEC 17011, which specifies the general requirements for accreditation bodies, was published ten years ago. No commenter specifically discussed ISO/IEC 17011, and many accreditation bodies are likely already familiar with this standard in conjunction with their work in other jurisdictions or subject areas. Given the lack of comments and the likelihood that many accreditation bodies are already familiar with the ISO/IEC 17011 standard, we choose to use the September 15, 2015 date for both standards. Doing so will provide a clear and unified transition period for all parties.

<sup>111</sup> <http://www.fcc.gov/oet/ea/>. The same laboratory may appear in both sets of records, so long as it has met the requirements to be accredited and has met the requirements to be 2.948 listed.

information about the testing laboratory) and must provide them to the FCC upon request.<sup>112</sup>

40. A testing laboratory may be recognized by the OET as accredited if it is assessed to ISO/IEC 17025 in accordance with the requirements in Section 2.948(d) and, if applicable, Section 2.948(e) of our rules. Laboratory accreditation is a rigorous process involving an extensive review of documentation and onsite visits by representative(s) of the accrediting body.<sup>113</sup> Additionally, an accredited test laboratory must be reassessed at intervals not to exceed two years. The accreditation of a laboratory outside the United States is considered acceptable only under one of the following conditions: 1) it is based on the terms of an applicable government-to-government MRA with the United States; or 2) the laboratory is accredited by an organization that has entered into an arrangement between accrediting organizations that is recognized by the Commission.<sup>114</sup> On the other hand, a testing laboratory may be recognized as 2.948-listed under Section 2.948(a)(2) of our rules if it submits the information specified by Section 2.948(b) to OET.<sup>115</sup>

41. *Proposal.* In the *Notice*, the Commission proposed to require that all laboratories that test equipment subject to Certification or to DoC under any rule part be accredited to ISO/IEC 17025, ending the “2.948-listing” program for unaccredited labs to test equipment to be certified under Parts 15 and 18 of the rules.<sup>116</sup> The Commission proposed to retain the requirement in Section 2.948 that test laboratories compile a description of their measurement facilities, and proposed to require that they supply this information to a laboratory accreditation body for review by the accreditation body as part of its documentation for accreditation or to the Commission upon request.<sup>117</sup> The Commission further proposed to retain the requirement that accredited testing laboratories must be reassessed at least every two years to ensure continued compliance with the accreditation requirements.<sup>118</sup> It also sought comment on whether it should allow an accredited testing laboratory to sub-contract part of its work to another laboratory and whether the sub-contractor should be accredited.<sup>119</sup>

42. The Commission proposed to maintain a list of accredited testing laboratories that are acceptable to the Commission for testing equipment subject to the Certification and DoC procedures, as well as the types of equipment that each laboratory is accredited to test.<sup>120</sup> It proposed no additional requirements for entities testing equipment subject to the verification procedure. The Commission further proposed to include laboratories located outside of the United States on the accredited testing laboratory list only if it recognized the laboratories’ accreditation under the terms of a Mutual Recognition Agreement (MRA) or other agreement.<sup>121</sup> Because some testing laboratories are located in countries that do not have an MRA with the United States, the Commission proposed to continue to require in Section

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<sup>112</sup> A “capable” facility in this context is one that is properly equipped to test the type of device being tested and whose test personnel have the knowledge of the test procedures and rules to ensure that devices are tested correctly.

<sup>113</sup> Laboratory accreditation bodies assess a variety of aspects of a laboratory, including the technical competence of staff; the validity and appropriateness of test methods; traceability of measurements and calibration to national standards; suitability, calibration and maintenance of the testing environment; sampling, handling and transportation of test items; and quality assurance of test and calibration data.

<sup>114</sup> See 47 C.F.R. § 2.948(e).

<sup>115</sup> 47 C.F.R. § 2.948(b) lists information descriptive of a test laboratory including, for example, location, description of test site, and measuring equipment used.

<sup>116</sup> *Notice*, 28 FCC Rcd at 1626, para. 49.

<sup>117</sup> *Notice*, 28 FCC Rcd at 1627, para. 50. Under the current rules, test laboratories submit their descriptions to the Commission, as described in para. 40, *supra*.

<sup>118</sup> *Id.*

<sup>119</sup> *Notice*, 28 FCC Rcd at 1628, para. 52.

<sup>120</sup> *Notice*, 28 FCC Rcd at 1627, para. 51.

2.948 of the rules that such a laboratory must be accredited by an organization recognized by the Commission for performing accreditations in the country where the laboratory is located. The Commission further proposed to codify a process for recognizing such laboratory accreditation bodies within Section 2.949.<sup>122</sup> The Commission sought comment on the appropriate process for recognizing the accreditation of testing laboratories in countries that do not have an MRA with the United States, such as by recognizing accreditations made by accreditation bodies that have been peer reviewed through the International Laboratory Accreditation Cooperation (ILAC) or other organizations.<sup>123</sup>

43. *Comments.* Several commenters supported our proposal that all testing laboratories that perform Certification testing be accredited.<sup>124</sup> Some commenters had qualified support for the proposal. Cisco suggests that the requirement not apply to testing laboratories that only perform bench tests.<sup>125</sup> The TCB Council supports the requirement only for laboratories that are outside the U.S. in countries without an MRA.<sup>126</sup> TIA generally supports the proposals. However it expresses concerns as to whether the proposals should be broadly applied to all testing laboratories since much testing is done in manufacturers' engineering laboratories that specialize in the licensed services – which are not currently subject to accreditation requirements.<sup>127</sup> Additionally, dB Technology opposes the proposal, stating that the Commission did not consider the negative effects that the additional costs associated with becoming accredited would impose on small laboratories and that there is no link between the use of unaccredited laboratories and non-compliant equipment.<sup>128</sup>

44. Several commenters suggest that the Commission should not require sub-contractors to be accredited, and point out that the ISO/IEC 17025 accreditation standard allows accredited laboratories to sub-contract with unaccredited laboratories provided that certain performance standards are met.<sup>129</sup> A2LA and ACIL were generally opposed to our proposals related to the recognition of laboratories accredited in countries that do not have an MRA with the United States.<sup>130</sup> IBM specifically objects to the proposal as it applied to laboratories in non-MRA countries performing DoC testing. HP and the TCB Council expressed qualified support for the proposals.<sup>131</sup> HP indicated that test laboratories should be able to sub-contract testing to other accredited testing laboratories. The TCB Council commented that laboratory accreditation should only be required for foreign testing laboratories and sub-contracting should be allowed if the requirements of ISO/IEC 17025 are followed.

45. *Decision.* We continue to believe that requiring testing laboratory accreditation is an important adjunct to our decision to allow TCBs to certify all RF equipment. This requirement will provide a higher degree of confidence that equipment testing done in support of Certification applications

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<sup>121</sup> *Id.*

<sup>122</sup> *Id.*

<sup>123</sup> *Notice*, 28 FCC Rcd at 1627, para. 52. ILAC is an international organization of laboratory and inspection accreditation bodies that was formed to help remove technical barriers to trade. Accreditation bodies that are part of ILAC have been peer-reviewed as competent and sign arrangements to enhance the acceptance of products and services across national borders. [www.ilac.org](http://www.ilac.org).

<sup>124</sup> IBM Corporation comments at 2, Teradata Corporation comments at 1, A2LA comments at 2, Northwest EMC comments at 2, HP comments at 6, ACIL comments at 3, and AFTRCC comments at 5.

<sup>125</sup> Cisco comments at 10.

<sup>126</sup> TCB Council comments at 7.

<sup>127</sup> TIA comments at 13.

<sup>128</sup> dB Technology comments at 1-2.

<sup>129</sup> Teradata comments at 1, IBM comments at 2, TCB Council comments at 7, and HP comments at 7.

<sup>130</sup> A2LA comments at 3 and ACIL comments at 4.

<sup>131</sup> HP comments at 7 and TCB Council comments at 7.

is conducted in accordance with the applicable standards. Accordingly, we adopt our proposals to require all laboratories that perform Certification testing be accredited under ISO/IEC 17025 and retain the requirement that laboratories that perform DoC testing be accredited to ISO/IEC 17025. As proposed, we will maintain a list of accredited laboratories that are acceptable for testing equipment subject to the Certification and DoC procedures, as well as the types of equipment that each laboratory is accredited to test. We also adopt the requirement that testing laboratories may sub-contract/outsourcing testing only to testing laboratories that have been recognized by the Commission as accredited to the appropriate international standard. Finally, we find little evidence in the record that the accreditation requirement represents a significant impact on small test laboratories and is greatly outweighed by the costs that can result when equipment causes harmful interference to other radio services or must be pulled from the market due to non-compliance that is the result of improper testing. Requiring all laboratories that test equipment subject to the certification and DoC procedures under any rule part to be accredited is essential for maintaining the reliability of and confidence in our certification program in the face of increasingly complex technology and devices

46. Several commenters, including Teradata, IBM, TCB Council, and ITIC, asked us to adopt a more permissive rule that would also allow an accredited testing laboratory to sub-contract/outsourcing testing to a competent unaccredited entity. We decline to do so. Given the increasing complexity of products on the market and the complexity of the testing requirements of those products, a requirement that all testing be performed by accredited testing laboratories allows us to maintain a higher level of quality and confidence in the test results. We also think it would be inconsistent to disallow submission of test results from an unaccredited submitting laboratory but allow submission of test results from an unaccredited sub-contracting laboratory. While we recognize that ISO/IEC 17025 allows the use of non-accredited entities, it also states that the regulatory authority can specify which sub-contractor can be used. In this case, we are effectively specifying that all laboratory work be done by laboratories that are recognized by the Commission as accredited laboratories. Moreover, we have no information to lead us to believe that sub-contracting with laboratories that are recognized by the Commission as accredited is more burdensome to applicants for certification than using a sub-contracting process that meets the requirements of ISO/IEC 17025, or that such burdens (if any) would be substantial enough to outweigh the benefits associated with ensuring that all work is performed by accredited laboratories.<sup>132</sup> Similarly, with regard to the comments from Cisco, we see no reason to exempt bench testing from the accreditation requirement because it is equally important to ensure that such tests are performed properly. We further observe that equipment subject to certification is rarely subject only to bench tests and so we see little benefit in providing an exception for labs that perform only such testing.

47. The new accreditation requirement supersedes the 2.948 criteria for unaccredited laboratories that test equipment certified under Parts 15 and 18 of the rules and we will cease recognizing new unaccredited 2.948-listed laboratories as of the effective date of the rules adopted in this Report and Order. Laboratories recognized under the 2.948 criteria as of the effective date of this Report and Order will continue to appear on the OET published list for such laboratories and be recognized until their expiration date of recognition or for one year from the effective date, whichever is sooner, to allow them time to become accredited.<sup>133</sup> 2.948-listed laboratories whose recognition will expire within one year from the effective date of the rules may request the Commission extend their recognition date until one year from the effective date of the rules set forth in this Report and Order. Any testing that is completed by unaccredited recognized 2.948-listed laboratories during the one-year period beginning on the

<sup>132</sup> Although Teradata states that a ban on subcontracted tests that comply with ISO/IEC 17025 “is overly restrictive and can place a financial hardship on accredited test laboratories,” it makes its statement in the context of its arguments against imposing an outright prohibition on an accredited laboratory from subcontracting tests. Teradata comments at 1. Significantly, it further states that all testing that it has subcontracted “has been to other ISO/IEC [17025] accredited laboratories,” which appears to be consistent with the subcontracting rules we are adopting.

<sup>133</sup> Laboratories which are both 2.948-listed and accredited will continue to be included in list for accredited laboratories in EAS.

effective date of the rules adopted in this Report and Order will be accepted only in support of a Certification application submitted within 15 months of the aforementioned effective date.<sup>134</sup>

48. Comments related to the appropriate process for recognizing the accreditation of test laboratories in countries that do not have an MRA with the United States were almost evenly split, with a slight majority indicating that we should not recognize foreign laboratories unless there is an MRA in place. The comments that supported the recognition of accredited testing laboratories located in non-MRA countries provided limited recommendations on procedures that would ensure that such testing laboratories have the appropriate capabilities and reliability and that all products approved are compliant with our rules. In this regard, the current rules allow for the recognition of accredited testing laboratories in countries with which there is no operational MRA with the United States, however, the rules do not provide a process for such recognition.<sup>135</sup> In order to minimize the potential impact of no longer accepting test data from unaccredited 2.948-listed laboratories, with the elimination of recognition of unaccredited testing laboratory program as discussed above, while maintaining a high quality level for the testing program, we are adopting rules to specify the process for recognizing testing laboratory accreditation bodies.<sup>136</sup> Requests for recognition of testing laboratories in countries that do not have an MRA with the United States and which were accredited by accreditation bodies recognized by the Commission will be handled under our current procedures in Section 2.948.

49. Finally, we will retain the requirement in Section 2.948 that test laboratories compile a description of their measurement facilities, and require that they supply this information to a laboratory accreditation body as part of the documents submitted at the time of accreditation or to the Commission upon request. Further, we retain the requirement that accredited laboratories must be reassessed at least every two years to ensure continued compliance with the accreditation requirements.

## 2. Selection of New Laboratory Accreditation Bodies

50. *Proposal.* Under Section 2.948(d) of the rules, any entity seeking recognition from the Commission as an accreditation body for test laboratories must obtain the approval of OET.<sup>137</sup> The Commission proposed, in the *Notice*, to codify the type of information that an applicant that desires to be recognized as a laboratory accreditation body should provide in support of its application. Specifically, we proposed to codify the following criteria for OET to use when determining the acceptability of new laboratory accreditation bodies:

1. Successful completion of a ISO/IEC 17011 peer review, such as being a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement or other equivalent laboratory accreditation agreement;<sup>138</sup>
2. Experience with the accreditation of electromagnetic compatibility (EMC), radio and telecom testing laboratories to ISO/IEC 17025. This can be demonstrated by having OET staff

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<sup>134</sup> *Id.*

<sup>135</sup> See 47 C.F.R. § 2.948(e).

<sup>136</sup> A large number of testing laboratories recognized as 2.948-listed are located in countries that do not have an operational MRA and are not eligible to be recognized by the FCC until procedures for recognizing laboratories in non-MRA countries are in place.

<sup>137</sup> See 47 C.F.R. § 2.948(d); see also 47 C.F.R. § 0.241(f) (delegating authority to the Chief of OET to enter into agreements with the National Institute of Standards and Technology and other accreditation bodies to perform accreditation of test laboratories pursuant to Section 2.948(d)).

<sup>138</sup> The ILAC Arrangement builds upon existing or developing regional arrangements established around the world. The European Cooperation for Accreditation (EA), the Asia Pacific Laboratory Accreditation Cooperation (APLAC) and the Inter-American Accreditation Cooperation (IAAC) are examples of current ILAC-recognized regions with acceptable mutual recognition arrangements (MRAs) and evaluation procedures. See ILAC Arrangement at <http://www.ilac.org/ilacarrangement.html>.

participate in a witness audit of the accreditation body performing an assessment of an EMC/Radio/Telecom testing laboratory; or by having OET staff review the report generated by the NIST laboratory accreditation evaluation program conducted to support the Asia Pacific Economic Cooperation (APEC) Mutual Recognition Arrangement for Conformity Assessment of Telecommunications Equipment.<sup>139</sup> An applicant that offers other evidence has the burden of demonstrating that the information would enable OET to evaluate its experience with the accreditation of EMC, radio and telecom testing laboratories to ISO/IEC 17025.

3. Accreditation personnel/assessors with specific technical experience in the Commission equipment authorization rules and requirements; and
4. Procedures and policies developed by [the testing firm accreditation bodies] for the accreditation of testing laboratories for FCC equipment authorization programs.<sup>140</sup>

51. *Comments.* Cisco states that the criteria for recognizing new laboratory accreditation bodies should not be codified in the rules. Rather than “freeze” the procedures in rules that can only be modified by the Commission, it suggests that the criteria continue to be established via KDB and public notice. Cisco asserts that this would be the best way to accommodate procedures that were developed in “an environment of constant change.”<sup>141</sup> Other parties were generally supportive of codifying the public notice procedures, with some suggestions for minor changes or clarifications. ACIL and NCLA expressed concerns that specifically mentioning ILAC in the rules would give the appearance that ILAC is the only acceptable organization that operates a recognition program under ISO/IEC 17011.<sup>142</sup> NIST suggests two specific edits to the proposed rule: making clear that NIST’s laboratory accreditation body evaluation program applies only to accreditation bodies that are located in the United States; explaining more specifically what “other evidence” would be acceptable to demonstrate necessary accreditation experience.<sup>143</sup> Northwest EMC suggests mentioning other accrediting bodies in the rules (NVLAP, A2LA, or ACLASS). Additionally, Northwest EMC recommends that the procedures apply only to countries with which the United States has an MRA and that the procedures not apply to labs that only test for DoCs.<sup>144</sup>

52. *Decision.* We will adopt the proposal to codify the above criteria for OET’s determination of the acceptability of new laboratory accreditation bodies. Under these rules, the information that an applicant submits will have to show how the applicant satisfies each of the four elements described above, and OET will base its evaluation of applications on whether they meet each of the elements. We agree with Cisco that it is important for our procedures to keep up with evolving industry practices; however, we do not anticipate that codifying the existing practices will prevent us from doing so.<sup>145</sup> Applicants will be able to choose how they show that they meet each of the elements, and we direct OET to use its

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<sup>139</sup> Domestic laboratory accreditation bodies that successfully complete the NIST evaluation program are listed by NIST as acceptable for use by domestic laboratories seeking to be designated to foreign MRA partner economies.

<sup>140</sup> The proposed rule would codify the criteria detailed in an OET public notice that was released on August 12, 2010. See *Office of Engineering and Technology Provides Guidance on the Recognition of Laboratory Accreditation Bodies and Recognizes ACLASS as an Accreditation Body*, Public Notice, 25 FCC Rcd 10830 (2010). See also *Notice*, 28 FCC Rcd at 1629, paras. 54-55.

<sup>141</sup> Cisco comments at 11.

<sup>142</sup> NCLA comments at 1-2 and ACIL comments at 4.

<sup>143</sup> NIST comments at 2-3.

<sup>144</sup> Northwest EMC comments at 2.

<sup>145</sup> We note that the public notice procedures have been in place for almost four years and still remain valid.



existing resources – including the KDB and public notice process – to provide additional guidance, clarification, and updates, as needed. In a slight change from the proposal, the adopted rule will not list specific organizations that operate recognition programs under ISO/IEC 17011.<sup>146</sup> While the list was intended as an example, inclusion of specific organizations in the rules could inadvertently limit the flexibility of entities seeking recognition as an accreditation body<sup>147</sup> or give the specific organization(s) a perceived advantage. Accordingly, we will not make specific reference to ILAC as evidence of successful completion of an ISO/IEC 17011 peer review, but instead we make a general statement that recognition be based on a peer review pursuant to an agreement found to be acceptable to the Commission. The new language should satisfy commenters' concerns. Similarly, regarding NIST's suggestion that we clarify that its program only applies to domestic accrediting bodies, we are removing the rule reference to the NIST program. We find that it is best to not specifically list the recognized accreditation bodies in the rules; instead the Commission will maintain a list of recognized accreditation bodies on its web page to facilitate the prompt notice of new recognitions.

53. As to NIST's suggestion that the rule include further specific elaboration on other supporting evidence, we only specify in the rule the key elements that OET will use in evaluating the competence of an accreditation body. We give OET the flexibility to accept other supporting evidence on a case-by-case basis because doing so will allow us to readily accommodate evolving industry practices. The rules we codify are intended to set forth what an applicant must demonstrate to be recognized as a new laboratory accreditation bodies, and not necessarily how they choose to make such a showing.

### 3. Test Site Validation

54. *Background.* Radiated emission measurements at frequencies above 1 GHz are required for many devices subject to Parts 15 and 18 of the rules. Under the current rules, a measurement facility that is used for measuring radiated emissions from equipment subject to Parts 15 and 18 must meet the site validation requirements in ANSI C63.4-2001.<sup>148</sup> However, ANSI C63.4-2001 does not have specific site validation criteria for test facilities used for making radiated emissions at frequencies above 1 GHz. Rather, it only states that facilities determined to be suitable for performing measurements in the frequency range 30 MHz to 1 GHz are considered suitable for performing measurements in the frequency range 1 GHz to 40 GHz, without specific site validation criteria for the higher frequencies.

55. Subsequent versions of the emission measurement standard, ANSI C63.4-2009 and ANSI C63.4-2014, both provide two options for test site validation for facilities used to make radiated emission measurements above 1 GHz, both of which include additional requirements that test facilities must meet.<sup>149</sup> Specifically, these standards state that facilities are suitable for measurements in the frequency range 1 GHz to 40 GHz when RF absorbing material covers the ground plane such that either of the following conditions are met: 1) the site validation criteria specified in CISPR 16-1-4 (CISPR 16)<sup>150</sup> is met;<sup>151</sup> or 2) a minimum area of the ground plane is covered using RF absorbing material.<sup>152</sup>

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<sup>146</sup> 47 C.F.R. § 2.949.

<sup>147</sup> *Id.*

<sup>148</sup> See 47 C.F.R. § 2.948 and ANSI C63.4-2001, *American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz*. We note that 47 C.F.R. 15.31 specifies use of a later version of this standard, ANSI C63.4-2003, when making a determination of compliance with the technical requirements of Part 15 of the Commission's rules. It appears that the continued specification of the 2001 standard in 47 C.F.R. 2.948 was inadvertently not updated simultaneously with Section 15.31. See [KDB Publication 704992](#).

<sup>149</sup> OET has accepted measurements made pursuant to either the 2003 or 2009 version of the ANSI C63.4 standard since 2009. See fn 181, *infra*. A newer version of the standard was adopted subsequent to the *Notice*. See discussion, at paras. 66-70, *infra*. With respect to test site validation, ANSI C63.4-2014 provided non-substantive "clean up" to the 2009 version.



56. *Proposal.* In the *Notice*, the Commission proposed to require that test facilities used to make radiated emission measurements on equipment authorized under any rule part meet the site validation requirements in ANSI C63.4-2009.<sup>153</sup> It also proposed that if the measurement site will be used for measuring radiated emissions in the range of 1 GHz to 40 GHz, the site must meet the site validation criterion specified in ANSI C63.4 that references CISPR 16, in order to provide better accuracy and repeatability of measurements than simply covering a minimum area of its ground plane.<sup>154</sup> The Commission further proposed that a laboratory must confirm compliance with the site validation criterion no less than once every three years.<sup>155</sup>

57. *Comments.* A number of parties support the Commission's test site validation proposals.<sup>156</sup> Teradata Corporation, dB Technology, and ACIL do not oppose the Commission proposals, but caution that compliance with the site validation criteria will impose costs on test laboratories.<sup>157</sup> Teradata recommends a two-year transition period for laboratories to comply with the Commission's proposed requirement, while ACIL and ANSI ASC C63 recommend a three-year transition period.<sup>158</sup> ANSI ASC C63 recommends that laboratories be given the option of complying with the alternative site validation method in ANSI C63.4-2009 (RF absorber material on the ground plane) during a three-year transition period to compliance with the CISPR 16 requirements.<sup>159</sup> TIA recommends that the Commission permit the use of either validation option in ANSI C63.4-2009.<sup>160</sup> TIA and TCB Council oppose requiring all equipment used in authorized services to be tested on a site complying with ANSI C63.4-2009 because many transmitters used in authorized services are tested for compliance under a different standard (Telecommunications Industry Association (TIA) 603), that does not require a test site to meet the ANSI C63.4-2009 criteria.<sup>161</sup> Finally, ANSI C.63 filed *ex parte* comments supporting the use of the recently adopted ANSI C63.4-2014 standard in place of ANSI C63.4-2009 wherever it would be applicable in our

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<sup>150</sup> See CISPR 16-1-4:2010-04, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Radiated disturbances*. This part of CISPR 16 specifies the characteristics and performance of equipment used for the measurement of radiated disturbances in the frequency range 9 kHz to 18 GHz. Specifications for antennas and test sites are included in this standard.

<sup>151</sup> ANSI C63.4-2009 references the site validation requirements in CISPR 16-1-4:2007, and ANSI C63.4-2014 references the site validation requirements in CISPR 16-1-4:2010-04.

<sup>152</sup> See ANSI C63.4-2009, clause 5.5, "covering a minimum area of 2.4 m by 2.4 m (for a 3 m test distance) between the antenna and the EUT using RF absorbing material with a minimum-rated attenuation of 20 dB (for normal incidence) up to 18 GHz." See ANSI C63.4-2014, clause 5.5.1, "RF absorbing material is placed on the test site ground plane and turntable, covering a minimum area with length of (2.3 m + turntable diameter, in m) or 3.8 m, whichever is greater, and width of 3.6 m, for a 3 m test distance between the antenna and the center of the turntable."

<sup>153</sup> *Notice*, 28 FCC Rcd at 1630, para. 59.

<sup>154</sup> *Id.*

<sup>155</sup> *Id.*

<sup>156</sup> See IBM comments at 2, ITI comments at 2, HP comments at 8, and Cisco comments at 12.

<sup>157</sup> See dB Technology comments at 4.

<sup>158</sup> See Teradata comments at 2, ACIL comments at 5, and ANSI C63 comments at 4.

<sup>159</sup> See ANSI C63 comments at 4.

<sup>160</sup> See TIA comments at 15.

<sup>161</sup> See TIA comments at 15 and TCB Council comments at 9. TIA 603, "Land Mobile FM or PM Communications Equipment Measurement and Performance Standards," is available from <http://www.tiaonline.org/>.

rules.<sup>162</sup>

58. *Decision.* We adopt the proposal to establish specific site validation criteria for test facilities used for making radiated emissions at frequencies above 1 GHz. Specifically, we require that test facilities used to make radiated emission measurements above 1 GHz meet the site validation requirements in ANSI C63.4-2014. Although our original proposal was to adopt ANSI C63.4-2009, ANSI C63.4-2014 is essentially the same as the 2009 version (a specific set of validation criteria for test facilities that was missing in the 2001 version), no parties have taken the opportunity to oppose ANSI C63's recommendation that we use the 2014 standard, and use of the 2014 version avoids any confusion associated with the use of a version of the standard that is not the most current.

59. Adoption of the revised ANSI C63.4 standard necessitates compliance with CISPR 16. In light of comments citing the cost to make upgrades to test facilities to meet the site validation requirements in CISPR 16, we will allow either alternative for site validation in ANSI C63.4-2014 to be used to determine the suitability of a test facility to be used to make radiated emissions measurements above 1 GHz during a three-year transition period.<sup>163</sup> However at the end of the three-year transition period test facilities used to make radiated emissions will be required to demonstrate compliance with the site validation criteria specified in CISPR 16.

60. We recognize that not all radiated emission measurement methods for licensed devices, such as the substitution method, require the use of a test facility that meets the site validation requirements in ANSI C63.4-2014. For clarity, we adopt revisions to Section 2.948(d) that specify that the site validation requirements only apply for radiated emissions test methods that require the use of a validated test site.<sup>164</sup>

## C. Measurement Procedures

### 1. Part 15 Devices

61. In this section, we discuss the applicability of the measurement procedures in ANSI C63.4 to our Part 15 rules. The Commission requires that most devices subject to Part 15 technical requirements be tested to demonstrate compliance with these requirements before they can be imported into or marketed within the United States.<sup>165</sup> Specifically, Section 15.31(a) of the rules states that the Commission will measure emissions from most intentional and unintentional radiators using the standard published by the American National Standard Institute Accredited Standards Committee C63<sup>®</sup> - Electromagnetic Compatibility (ANSI-ASC C63), titled ANSI C63.4-2003, *American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 KHz to 40 GHz* (ANSI C63.4 standard) to determine compliance with the Part 15 technical requirements.<sup>166</sup>

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<sup>162</sup> See paras. 69-70, *infra*.

<sup>163</sup> In other words, test laboratories may meet the site validation requirements during this three-year transition period either by 1) meeting the site validation criteria specified in CISPR 16, or 2) demonstrating that a minimum area of the ground plane is covered (*e.g.*, covering a minimum area with length of (2.3 m + turntable diameter, in m) or 3.8 m, whichever is greater, and width of 3.6 m for a 3 meter test distance) between the antenna and the equipment under test (EUT) using RF absorbing material with a minimum-rated attenuation of 20 dB at frequencies up to 18 GHz. See *supra* paras. 54-55.

<sup>164</sup> See TIA-603-D, *Land Mobile FM or PM Communications Equipment Measurement and Performance Standards* and TIA-102.CAAA-D, *Project 25 Digital C4FM/CQPSK Transceiver Measurement Methods* for examples of measurement methods that do not require a radiated emissions test facility that meets the site validation requirements in ANSI C63.4-2009.

<sup>165</sup> See 47 C.F.R. § 2.901 *et seq.*

<sup>166</sup> See 47 C.F.R. § 15.31. See also Accredited Standards Committee C63<sup>®</sup> - Electromagnetic Compatibility (ANSI-ASC 63), ANSI C63.4-2003, *American National Standard for Methods of*

62. As detailed in the *Notice*, the Commission has issued a number of public notices, interpretations and advisories on measurement standards to supplement the test procedures given in the ANSI C63.4 standard listed in the rules (*i.e.* ANSI C63.4-2003).<sup>167</sup> This information has been designed to account for the growing number of intentional radiators and the resulting numbers of questions from test laboratories.<sup>168</sup> Subsequently, ANSI-ASC C63 (with the participation of Commission staff) developed a new standard, ANSI C63.10-2009, for use in the measurement of intentional radiators in a wide range of frequency bands.<sup>169</sup> This standard is essentially a combination of the existing measurement procedures and associated Commission guidance for intentional radiators, and does not add any new requirements for compliance testing.<sup>170</sup> ANSI-ASC C63 also released a revised version of the ANSI C63.4 standard, ANSI C63.4-2014, to address unintentional radiators.<sup>171</sup> Thus, ANSI C63.10 now contains the measurement procedures for intentional radiators, and ANSI C63.4 now contains the measurement procedures for unintentional radiators.<sup>172</sup> Upon publication of the 2009 standards by ANSI-ASC C63, OET issued a Public Notice announcing that, until it could initiate a rulemaking proceeding to incorporate the new standards into the rules, compliance measurements may be made under either the then-new 2009 standards or the 2003 standard currently in the rules.<sup>173</sup> Subsequent to the release of the *Notice* ANSI-ASC C63 published updated versions of both standards, ANSI C63.4-2014 and ANSI C63.10-2013.

63. *Proposal.* In the *Notice*, the Commission proposed to update its rules to incorporate the latest standards – at that time, ANSI C63.10-2009 for intentional radiators and ANSI C63.4-2009 for unintentional radiators – into the rules.<sup>174</sup> It stated that doing so would “advance the Commission’s objective of ensuring compliance with its technical requirements as well as decreasing the burden on equipment manufacturers.”<sup>175</sup> In keeping with its previous policy with respect to ANSI C63.4, the Commission proposed to exclude the use of the sections in ANSI C63.4-2009 that allow the use of rod antennas for electric field measurements below 30 MHz; an artificial hand for holding handheld devices; an absorbing clamp for radio noise power measurements; and relaxed limits for transient emissions.<sup>176</sup>

*Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 KHz to 40 GHz.* The ANSI C63.4 standard is available from the sources listed in 47 C.F.R. § 15.38(b).

<sup>167</sup> *Notice*, 28 FCC Rcd at 1631, para. 61.

<sup>168</sup> *Id.*

<sup>169</sup> See Accredited Standards Committee C63® - Electromagnetic Compatibility (ANSI-ASC C63), ANSI C63.10-2009, *American National Standard for Testing Unlicensed Wireless Devices*. This standard is available at <http://webstore.ansi.org>.

<sup>170</sup> The standard was developed using procedures and guidance from ANSI C63.4, multiple FCC KDB publications, and FCC Public Notices.

<sup>171</sup> See Accredited Standards Committee C63® - Electromagnetic Compatibility (ANSI-ASC C63), ANSI C63.4-2009, *American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 KHz to 40 GHz*. This standard is available at <http://webstore.ansi.org>.

<sup>172</sup> The 2009 version of ANSI C63.4 incorporated several changes from the 2003 version including, among others, items related to the laboratory environment, measurement equipment, and site validation criteria for frequencies above 1 GHz. *Notice*, 28 FCC Rcd at 1632, para. 63.

<sup>173</sup> See *Office of Engineering and Technology Clarifies Use of Recently Published ASC C63® Measurement Standards for Compliance Testing of Intentional and Unintentional Radiators under Part 15*, Public Notice, 24 FCC Rcd 14134 (2009).

<sup>174</sup> *Notice*, 28 FCC Rcd at 1634, para. 67.

<sup>175</sup> *Id.*

<sup>176</sup> *Id.*

64. The *Notice* was informed, in part, by a Petition for Rule Making filed on September 27, 2011 by ANSI-ASC C63 requesting that the Commission modify its rules to replace the references to ANSI C63.4-2003 with references to ANSI C63.4-2009 and ANSI C63.10-2009.<sup>177</sup> In response to ANSI's petition, numerous comments were filed that raised specific concerns about the use of ANSI C63.4-2009. Due in part to these comments, in the *Notice* the Commission asked several questions related to the use of the updated standard. Specifically, it questioned whether the benefits of adopting the increased burdens associated with the new standard outweighed the associated costs. It also asked whether certain technical changes in the 2009 revision (*e.g.*, a restriction on the use of hybrid antennas or the 2 dB rule) cause problems for manufacturers and/or test laboratories. Further, we also asked if the references to undated standards that are incorporated in the 2009 revision could result in a mandate of compliance with subsequently-modified standards without the opportunity for comment or transition period. The Commission also asked whether the interpretations of C63.4-2009 and C63.10-2009 on ANSI's web site be accepted by the Commission as valid means for compliance. Finally, the Commission asked whether it could address the above concerns by not incorporating certain sections of the 2009 versions of the standards into the rules, and, if so, which particular sections should not be incorporated.<sup>178</sup>

65. Finally, the Commission recognized that work was underway to provide further updates to the standards, and sought comment on "whether there are any significant differences between the 2009 versions of [the] standards and the latest drafts, and whether any of the changes in these drafts would address our concerns."<sup>179</sup> After release of the *Notice* and completion of the pleading cycle, ANSI-ASC C63 completed the process of adopting newer versions of both standards, and released ANSI C63.4-2014 and ANSI C63.10-2013.<sup>180</sup> As we discuss *infra*, ANSI-ASC C63 filed a series of *ex parte* comments urging us to adopt these revised versions. Sirius XM stresses that adoption of the ANSI C63.10-2013 standard is important to Sirius XM and other entities that manufacture and use devices relying on FM modulators to interface with car radios.<sup>181</sup>

66. *Comments.* The TCB Council, Cisco, and AFTRCC support the adoption of both ANSI C63.4-2009 and ANSI C63.10-2009 into the Commission's rules.<sup>182</sup> TIA explicitly supports the adoption of ANSI C63.10-2009.<sup>183</sup> Several parties expressed concerns regarding specific technical aspects of ANSI C63.4-2009. Some of these filers indicate that the ANSI C63.4-2009 prohibition against the use of hybrid antennas would increase costs by requiring laboratories to purchase multiple, new antennas.<sup>184</sup> Parties also suggest that the "2 dB Rule," which addresses the testing of devices with multiple identical ports and how the addition of cables to identical ports may be limited, would place an undue burden on equipment manufacturers and it should be excluded from the Commission's rules.<sup>185</sup> In other technical matters, ACIL

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<sup>177</sup> See Petition for Rulemaking filed by the American National Standards Institute Accredited Standards Committee C63® - Electromagnetic Compatibility (ANSI-ASC C63) on September 27, 2011, RM-11652 ("ANSI-ASC C63 petition"). See also *Notice*, 28 FCC Rcd at 1634, para. 68.

<sup>178</sup> *Notice*, 28 FCC Rcd at 1634, para. 68.

<sup>179</sup> *Id.*

<sup>180</sup> See ANSI-ASC C63 Ex Parte comments of January 8, 2014, June 29, 2014, and July 8, 2014. ANSI-ASC C63 has published updated editions of ANSI C63.4, *American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz*, and ANSI C63.10, *American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices*.

<sup>181</sup> Sirius XM comments at 2.

<sup>182</sup> TCB Council comments at 9, Cisco comments at 13, and AFTRCC comments at 5.

<sup>183</sup> TIA comments at 16.

<sup>184</sup> Teradata comments at 2, IBM comments at 3, ITIC comments at 3, HP comments at 9, and ACIL comments at 5.

and dB Technology both raise issues with regard to the test method for radiated emissions above 1 GHz.<sup>186</sup>

67. Some commenters assert that having the Commission automatically accept standards interpretation documents listed on the ANSI-ASC C63 web site would effectively change the Commission's rules without the opportunity for comment.<sup>187</sup> The same commenters express similar concerns that the inclusion of undated references in the standards could cause confusion by introducing revised editions without defined transition periods.<sup>188</sup> Additionally, TIA asks that we clarify that the widely accepted practices on the use of measurement uncertainty for post-market surveillance testing of devices to the RF Exposure requirement given in Supplement C of OET Bulletin 65<sup>189</sup> remain valid.<sup>190</sup>

68. Although the *Notice* stated that the Commission was not proposing to incorporate another standard, CISPR 22,<sup>191</sup> into the rules for measuring equipment subject to Part 15, several commenters nevertheless request that the Commission not rule out future consideration of the use of CISPR 22 as an alternative to ANSI C63.4-2009.<sup>192</sup> The *Notice* observed that CISPR 22 addresses measurements only up to 6 GHz, whereas our rules require measurements at higher frequencies in some cases.<sup>193</sup> It also noted that CISPR 22 is applicable only to information technology equipment (called digital devices in the Commission's rules), while ANSI C63.4-2009 (as well as ANSI C63.4-2014) is applicable to all types of unintentional radiators under Part 15 of our rules, including digital devices.<sup>194</sup> At frequencies above 1 GHz, both ANSI C63.4-2009 and ANSI C63.4-2014 require pointing the measurement antenna at the source of the emission to determine the maximum level of the radiated emissions from a device under test, whereas CISPR 22 specifies a planar scan of the measurement antenna that may not determine the maximum emission levels.<sup>195</sup> In addition, HP proposes referencing CISPR 32<sup>196</sup> for test methods up to 6 GHz.<sup>197</sup>

69. ANSI-ASC C63 initially provided comments supporting the adoption of ANSI C63.4-

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<sup>185</sup> Teradata comments at 2-3, IBM comments at 2-3, ITIC comments at 2, HP comments at 9-10, and HP Reply comments at 4.

<sup>186</sup> ACIL comments at 5 and dB Technology comments at 4.

<sup>187</sup> IBM comments at 3, ITIC comments at 2, and HP comments at 11.

<sup>188</sup> IBM comments at 3, ITIC comments at 2, and HP comments at 8.

<sup>189</sup> Supplement C, Edition 01-01, *Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions*, to OET Bulletin 65, Edition 97-01, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*.

<sup>190</sup> TIA comments at 19.

<sup>191</sup> See CISPR 22, edition 6 0, 2008-09, *Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement*.

<sup>192</sup> TIA comments at 16; and Cisco comments at 15.

<sup>193</sup> *Notice*, 28 FCC Rcd at 1634, para. 68 (citing 47 C.F.R § 15.33(b)(1)).

<sup>194</sup> *Notice*, 28 FCC Rcd at 1634, para. 68.

<sup>195</sup> ANSI-ASC C63 reply comments at 5, ACIL comments at 5 and dB Technology comments at 4.

<sup>196</sup> See CISPR 32, edition 1.0, 2012-01, *Electromagnetic compatibility of multimedia equipment – Emission requirements*. CISPR 32 was developed address multimedia due to the convergence of technologies, sound and broadcast receivers with digital devices. This new standard is a combination of CISPR 13 *Sound and television broadcast receivers and associated equipment – Radio disturbance characteristics – Limits and methods of measurements*; and CISPR 22 *Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement*.

<sup>197</sup> HP Reply comments at 1-3.

2009 and ANSI C63.10-2009, along with suggestions that address concerns raised by other commenters. In its subsequent *ex parte* filings, ANSI C63.4 requests that we update the rules to cross-reference ANSI C63.10-2013 and ANSI C63.4-2014.<sup>198</sup>

70. ANSI-ASC C63 claims that ANSI C63.4-2014 further improves on various aspects of the C63.4-2009 standard, discussing how the newest version of the standard addresses: hybrid antenna qualification procedure; removal of testing procedures for transmitters as they are now covered by ANSI C63.10-2013; application of standard in the United States and Canada; improvements to “2 dB rule”; test setup details for tablet computers; test site validation interval guideline for radiated emissions above 1 GHz; use of RF absorber for radiated emissions above 1 GHz; visual display procedures based on size of screen; and further clarification on radiated emissions above 1 GHz.<sup>199</sup>

71. ANSI-ASC C63 further states that the ANSI C63.10-2013 standard further improves on various aspects of the C63.10-2009, noting changes that include: clarifications of instrumentation factors such as detector and antenna requirements; the use of spectrum analyzers; out-of-band emission (OOBE) and band edge requirements; millimeter wave procedures, measurements below 30 MHz and above 1 GHz; new procedures for wireless devices using new technology (*e.g.*, Digital Transmission Systems (DTS); Unlicensed National Information Infrastructure (U-NII) devices; FM transmitters in vehicles; and Inductive Loop devices. A number of these procedures and clarifications incorporate recent guidance from OET on the proper measurement methods for new technologies.<sup>200</sup>

72. *Decision.* We find that the improvements made in ANSI C63.4-2014 and ANSI C63.10-2013 represent the best measurement procedures, and we are therefore incorporating references to ANSI C63.4-2014 and ANSI C63.10-2013 into the rules as the measurement procedures for determining the compliance of unintentional and intentional radiators, respectively. Because the newest editions of these standards were adopted with the input of manufacturers, trade groups, and other academic bodies, they are styled to reflect the current state-of-the-art design and manufacturing processes.<sup>201</sup> Use of the most up-to-date standards will advance the Commission’s objective of ensuring the compliance of Part 15 devices, particularly given that the breadth and complexity of such devices continues to increase. The new standards also provide a meaningful distinction between intentional and unintentional radiators, which will aid parties in understanding and complying with our rules and requirements.

73. As an initial matter, the *Notice* discussed the then-pending revisions to ANSI ASC C63-4.2009 and C63.10-2009, and specifically sought comment on the difference between the 2009 versions and the draft revisions.<sup>202</sup> By asking whether any changes in the drafts would address the concerns that ITI had raised about use of the 2009 standards, the *Notice* anticipated that we might draw on the revised

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<sup>198</sup> ANSI-ASC C63 *ex parte* comments, January 8, 2014 and July 8, 2014. In its July 8 *ex parte* filing, ANSI-ASC C63 also discusses the adoption of ANSI C63.17, *Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices*. We note that the Chief, OET, recently issued an Order that adopts the use of this standard. See Amendment of Part 15 of the Commission’s Rules Regarding Unlicensed Personal Communications Service Devices in the 1920-1930 MHz Band, *Order*, ET Docket No. 10-97, DA 14-1189, rel. August 14, 2014.

<sup>199</sup> ANSI-ASC C63 July 8, 2014 *ex parte* comments.

<sup>200</sup> *Id.*

<sup>201</sup> See ANSI-ASC C63 *ex parte* comments, January 8, 2014 and July 8, 2014. ANSI-ASC C63 has published updated editions of ANSI C63.4, *American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz*, ANSI C63.10, *American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices* and ANSI C63.17, *Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices*.

<sup>202</sup> *Notice*, 28 FCC Rcd at 1634, para. 68.

standards in reaching our decisions. As evidenced by the comments in the record that specifically addressed use of the 2013 and 2014 standards, interested parties were aware of those intentions and took advantage of the opportunity to provide comment. As anticipated, the revised standards effectively address and allow us to resolve the types of issues that ITI and other parties raised with respect to the 2009 versions.<sup>203</sup>

74. We find that a reasonable transition period should be provided to allow for the implementation of these measurement procedures. As suggested by ANSI-ASC C63,<sup>204</sup> we provide a transition period for ANSI C63.4 which ends one year after the effective date of the rules, during which parties may continue to comply with either ANSI C63.4-2003, ANSI C63.4-2009 (consistent with current practice) or with the new ANSI C63.4-2014; and after the transition period date only compliance with ANSI C63.4-2014 will be accepted. We will apply the same one-year transition period for use of the new edition of ANSI C63.10-2013.

75. In implementing our decision, we continue to believe that there is insufficient evidence that rod antennas, artificial hands or absorber clamps produce accurate, repeatable measurements, and that short-duration emissions can produce as much nuisance to radio communications as continuous emissions.<sup>205</sup> No parties suggested allowing measurement methods that utilize such devices. Accordingly, we will continue to exclude ANSI C63.4-2014 sections that allow for these methods.

76. Several commenters addressed the so-called “2 dB rule,” which is a method used to limit the amount of testing needed by determining the worst-case configuration (*e.g.* number of cables required to be attached) for equipment with multiple ports of the same type.<sup>206</sup> ANSI C63.4-2009 included a change from ANSI C63.4-2003 that revised this procedure, particularly when measurements are showing emissions levels to be near acceptable limits. Some commenters are concerned that this change would place an additional burden on testing labs resulting in substantial increases in costs. ANSI-ASC C63 has stated it has made additional improvements with the “2 dB rule” in ANSI C63.4-2014.<sup>207</sup> We agree that the ANSI C63.4-2014 changes are designed to improve on ANSI C63.4-2009 and to address these concerns. Nevertheless, to reduce potential burdens on equipment manufactures and as proposed by HP,<sup>208</sup> we will continue to accept the use of the “2 dB” method in ANSI C63.4-2003 for demonstrating compliance with the requirement in Section 15.31(i) until we adopt further revisions to the standard.<sup>209</sup>

77. We remain unconvinced that we should allow the use of the measurement procedures in CISPR 22 for unintentional radiators as an alternative to the ANSI-ASC standards we are incorporating

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<sup>203</sup> For example, and as discussed in greater detail below, our use of ANSI C63.4-2014 satisfactorily resolves concerns parties had raised about use of hybrid antennas under the ANSI C63.4-2009 standard.

<sup>204</sup> See ANSI-ASC C63 comments.

<sup>205</sup> The Commission previously found that there was insufficient evidence that rod antennas, artificial hands or absorber clamps produce accurate, repeatable measurements, and it found that short duration emissions can produce as much nuisance to radio communications as continuous emissions. *Notice*, 28 FCC Rcd at 1634, para. 67.

<sup>206</sup> Specifically, interconnect cabling or wiring is to be connected to one of each type of functional port of the device under test, and each cable or wire is terminated in a device typical of actual use. Where there are multiple ports all of the same type, additional connecting cables or wires are added to the device under test to determine the effect of these cables or wires on both the radiated and conducted emissions. Once the addition of a cable results in a change of measured emissions of less than 2 dB, the device configuration is considered to be acceptable for use in required measurements.

<sup>207</sup> See ANSI-ASC C63 July 8, 2014 comments.

<sup>208</sup> HP comments at 9-10 and Reply comments at 4

<sup>209</sup> 47 C.F.R § 2.947(a)(3) allows for the use of alternative Commission accepted measurement procedures.

into our rules at this time. We note that, CISPR 22 has been superseded by CISPR 32. CISPR 22 and CISPR 32 both have the same limitations for measurements above 6 GHz and do not address all types of unintentional radiators covered in Part 15. As TIA stated, “the adoption of CISPR as an alternate testing standard is a subject needing much additional discussion.”<sup>210</sup> Several commenters request that the Commission keep open the possibility of entertaining further discussion on the ability to use international standards including CISPR 32 to demonstrate compliance.<sup>211</sup> We encourage ANSI-ASC C63 to review the new measurement procedures under CISPR 32 and work towards future harmonization with the ANSI C63.4 standard, to the extent that it is practical to do so. Accordingly, we may revisit this issue as further developments warrant.

78. ACIL and dB Technology discuss the proper arrangement of the measurement antenna relative to the equipment under test (EUT) when performing radiated emissions testing above 1 GHz.<sup>212</sup> We offer the following guidance for such testing. Measurement procedures for radiated emissions measurements above 1 GHz have required that the measurement antenna be pointed at the source of the radiated emission from the EUT in a manner that ensures that the measurement is maximized,<sup>213</sup> and we acknowledge that this can be achieved using different methods. ANSI-ASC C63 has indicated that further study is necessary before this test method can be revised to measure radiated emissions above 1 GHz and it intends to address any changes in a future edition of ANSI C63.4.<sup>214</sup> We also note that, subsequent to TIA’s comments, the use of measurement uncertainty in post-market surveillance testing as addressed in the now discontinued OET Bulletin 65, Supplement C<sup>215</sup> have been addressed in an update to OET’s guidance KDB 865664.<sup>216</sup>

79. The Commission received several comments complaining that ANSI C63.4-2009 excludes hybrid antennas for making radiated emissions measurements.<sup>217</sup> ANSI-ASC C63 states that ANSI C63.4-

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<sup>210</sup> TIA comments at 16.

<sup>211</sup> HP Reply comments at 1, CISCO Systems, Inc. comments at 15 and Telecommunications Industry Association comments at 16.

<sup>212</sup> ACIL comments at 5 and dB Technology comments at 4.

<sup>213</sup> See, e.g., ANSI C63.4-2009, clause 8.2.4. “Radiated emission measurements above 1 GHz are made using calibrated linearly polarized antennas as specified in 4.5.4, which may have a smaller beamwidth (main lobe) than do the antennas used for frequencies below 1 GHz. Because some equipment under test (EUT) may have a size larger than the beamwidth of the antenna at the specified measurement distance, and because the source of emissions is generally limited to relatively small-angle cones of radiation, measurements shall be made using an antenna with known beamwidth so that when emissions from large EUTs are measured, the area of coverage of the EUT can be determined. Moving the measurement antenna over the surfaces of the four sides of the EUT or another method of scanning of the EUT is required when the EUT is larger than the beamwidth of the measuring antenna. When radiated measurements are made at the measurement distance and the measurement antenna does not completely encompass a large EUT at that distance, additional measurements at a greater distance may be necessary to demonstrate that emissions were at maximum at the limit distance.”

<sup>214</sup> See ANSI-ASC C63 Reply comments, July 31, 2013 at 6.

<sup>215</sup> The use of Supplement C was discontinued and replaced with KDB guidance. See *Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies; Proposed Changes in the Commission’s Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields, First Report and Order, Further Notice of Proposed Rule Making, and Notice of Inquiry*, ET Dockets 13-84 and 03-137, 28 FCC Rcd 3498, 3512 para. 37 (2013).

<sup>216</sup> See KDB publication 865664 D01, SAR Measurement 100 MHz to 6 GHz.

<sup>217</sup> ITI comments at 3, IBM comments at 2, Teradata comments at 2, HP comments at 9, and HP reply comments at 4. Hybrid antennas are linear polarized antennas that include both biconical and log periodic elements and are used to make radiated emissions measurements.



2014 has addressed concerns with the use of hybrid antennas, and whether such antennas may be used for performing radiated emission measurements. It recommends that we allow the use of hybrid antennas for testing of products pursuant to the new procedures in ANSI C63.4-2014 that detail how they are to be used.<sup>218</sup> We agree. Use of the ANSI C63.4-2014 standard is an improvement over the 2009 standard in that provides a means for the use of hybrid antennas that is appropriate and reliable for providing accurate measurements. This serves the interest of those parties that support the use of hybrid antennas for making radiated emissions measurements.

80. We recognize that standards development organizations often provide informative explanations and interpretations of the standards that they develop. Such explanations often provide helpful insight to the rationale behind the development of a standard, and we will continue to consider them in response to requests for guidance or clarification. However, we will not incorporate the interpretations of standards organizations automatically into our rules, as some commenters assume.<sup>219</sup> We must maintain the discretion to use our own judgment in interpreting standards, even as we are informed by the interpretation(s) of the standards organization. In addition, we would not adopt the interpretation of a standards organization in a case in which doing so would effectively change the Commission's rules without the opportunity for comment. Additionally, ANSI-ASC C63 has indicated in its comments that it does not require parties to follow such explanations and interpretations to be considered "compliant" with a standard, until such time that they are included in the normative part of the standard via full approval process by the ANSI-ASC C63 committee.<sup>220</sup> In any event, the Commission will not consider any such interpretations to be requirements, but rather as informative technical guidance.

81. We also disagree with those commenters who assert that we should not adopt the new ANSI standards because they include cross-references to other undated standards. These commenters believe that this practice could inadvertently result in new compliance requirements by introducing revised editions without the opportunity for comment or defined transition periods. We recognize that when standards incorporate other standards by reference, the use of undated references may be unclear to users – particularly when there are several versions of the referenced standard. However, requiring that only dated standards be cross-referenced would not always result in certainty regarding compliance requirements and would prevent us from realizing the benefits in adopting the new ANSI standards. Standards development organizations have sought to find the appropriate procedures to clearly deal with these issues. ANSI-ASC C63 has decided to use undated references to other ANSI-ASC C63 standards, carefully reviewing the effect of any revisions as part of the standards development process. We accept this convention and we realize that under this approach, there could be a revision to a standard cross-referenced in ANSI C63.4 or ANSI C63.10 that would result in a substantive change in requirements. In such a case, the revised cross-referenced standard would not take effect until the Commission or OET on delegated authority completes a rulemaking adopting that change. To the extent that parties are unclear as to which version of a particular standard is currently in effect, OET will continue to provide guidance via the KDB on the use of updated references in ANSI C63.4 and ANSI C63.10.

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<sup>218</sup> See ANSI ASC C63 ex-parte comments July 8, 2014. A new test-site specific hybrid antenna qualification procedure has been included in ANSI C63.4-2014. There was no specific exception to the use of hybrid antennas in ANSI C63.4-2003. A different approach was taken in ANSI C63.4-2009 which is cited in Table 1 of the standard, only classical individual antennas to cover the frequency range 30 MHz to 1000 MHz. However, in text, "a linearly polarized broadband antenna" required is cited which leads to interpretations that were made that hybrids are allowed for final compliance testing. There is an informative interpretation sheet issued by ANSI-ASC C63 as a guide on how to deal with hybrid antennas (see [http://www.c63.org/documents/misc/interpretations/C63.4-2009\\_explanation\\_Hybrid\\_antennas\\_30\\_to\\_1000\\_MHz\\_rev3\\_Mar\\_2012.pdf](http://www.c63.org/documents/misc/interpretations/C63.4-2009_explanation_Hybrid_antennas_30_to_1000_MHz_rev3_Mar_2012.pdf)).

<sup>219</sup> IBM comments at 3, ITIC comments at 2, and HP comments at 11.

<sup>220</sup> ANSI ASC C63 comments at 11-12.

82. We find that the benefits in adopting our proposals are substantial. The revised standards distinguish between intentional and unintentional radiators and account for the increasing breadth and complexity of Part 15 devices. Use of these standards will ensure that parties comply with our rules and are necessary to ensure that noncompliant devices do not enter the marketplace where they may be difficult to eliminate. While compliance costs are a normal and expected part of a standards-driven regime where the standards are periodically updated, we note that by implementing the 2013 and 2014 editions we can mitigate any costs that would have been associated with meeting the 2009 editions as an interim step. Moreover, we have provided a transition period and mitigated certain aspects of the standards (such as with the “2 dB rule”) that should serve to reduce the cost concerns raised by some parties – particularly to the extent that those comments were directed at the 2009 versions of the standards that we are not adopting. Moreover, we recognize that there are costs associated with not acting to implement the latest standards. As Sirius XM notes, “A delay in incorporating updated ANSI standards into the Commission’s rules could have a detrimental impact on equipment manufacturers, service providers and, ultimately, consumers.”<sup>221</sup>

83. Finally, we address a specific and narrow concern raised by Inovonics which states that, while its products meet the frequency hopping requirements for unlicensed devices in Section 15.247(a)(1)(i) using the bandwidth measurement procedure in ANSI C63.4-2003, it would be unable to meet the frequency hopping requirement using the proposed bandwidth measurement procedure in ANSI C63.10-2009 due to difference in resolution bandwidth setting techniques when measuring occupied bandwidth.<sup>222</sup> Inovonics asserts that by having to redesign future products to meet the frequency hopping requirement, it would impose burdens on consumers of large-scale unlicensed systems who would no longer be able to modify their existing systems without substantially replacing all of their equipment.<sup>223</sup> It suggests that if we adopt a revised standard, we include an extensive grandfathering period for testing equipment under the existing standard.

84. A core component of the standards process is that of periodic revisions. While such updates offer benefits such as improved testing techniques and procedures for testing new types of devices, we also recognize that such updates necessarily and expectedly entail certain implementation costs. In this particular situation, Inovonics has argued that such costs will impose burdens that warrant particular relief. We find cause for such relief, based on the specific situation before us. Application of the 2009 standard would result in Inovonics’ existing consumers, with relatively little warning, having to choose whether to replace entire systems or forego the benefits of updating equipment or expanding their existing installations. As such, application of the standard would be so unduly burdensome as to run counter to the public interest. Accordingly, in the evaluation of devices from Inovonics that are designed to be compatible with Inovonics equipment that has already been authorized, we will continue to accept the bandwidth measurement procedure in ANSI C63.4-2003 for purposes of demonstrating that products meet the frequency hopping requirements for its unlicensed devices in Section 15.247(a)(1)(i).<sup>224</sup> Inovonics must phase out its use of the 2003 standard after December 31, 2020 – the date it suggests in its comments<sup>225</sup> – or when we adopt further revisions to the standard, whichever occurs first.<sup>226</sup> We find that this transition period will allow Inovonics sufficient time to prepare its customers for replacing their

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<sup>221</sup> Sirius XM comments at 2.

<sup>222</sup> Inovonics comments dated June 17, 2013 and Reply comments dated July 31, 2013.

<sup>223</sup> Although Inovonics did not update its filing to discuss ANSI C63.10-2013, we recognize that the same concerns – as well as the basis for our decision – will apply to use of the revised standard.

<sup>224</sup> This relief is narrow in scope, and we note that it may not apply to all applications submitted by Inovonics. For example, ASC C63 states, in its reply comments, that it “aware of at least one” of Inovonics’ products that may have been tested using the C63.10-2009 procedure for compliance. ASC C63 reply comments at 7.

<sup>225</sup> In all other aspects the new standards will apply in accordance with the applicable transition dates as discussed herein.

systems as it plans equipment designs that can be tested to comply with the updated standard. Because Inovonics will still be subject to the objective measurement procedure embodied in the 2003 standard, we will continue to have confidence that its equipment will comport with the appropriate Part 15 technical requirements and not create a risk of interference.

## 2. Updating Measurement Procedures

85. Proposal. Parts 2 and 15 of the Commission's rules incorporate various industry measurement standards.<sup>227</sup> Such standards have been developed by different industry groups and are subject to periodic revision. The Chief of OET is delegated authority to make editorial non-substantive changes to the rules pertaining to Parts 2, 5, 15, and 18 of the rules, which would include references to updated standards that do not involve substantive changes.<sup>228</sup> Non-editorial revisions to the rules require action by the full Commission.<sup>229</sup> To this point, all rule changes to reference updated standards have been effected by Commission action. In the Notice, the Commission proposed to explicitly allow OET to update references to industry standards that are already in the rules in Parts 2, 5, 15 and 18 of the rules, provided that the changes do not raise major compliance issues.<sup>230</sup> Under this proposal, to ensure compliance with the Administrative Procedure Act (APA),<sup>231</sup> OET would first issue a notice in the Federal Register seeking comment on the proposed change to the rules, and then make a determination as to the propriety of the revised rule and whether to incorporate it as informed by the comments submitted.<sup>232</sup> The incorporation of a completely new standard into the rules would continue to require Commission Action.<sup>233</sup>

86. Comments. A number of parties support the delegation of authority to the Chief of OET to reference revised measurement procedures.<sup>234</sup> Cisco and TIA state that a reasonable transition period should be provided when updates to standards are made.<sup>235</sup> However, HP believes that the Commission should update standards in the rules through a rulemaking proceeding which would engage a broad set of stakeholders which, it contends, is important for assessing the impact (including the ratio of costs to benefits) of any new requirements. It believes that the Commission should allow, as opposed to require, testing to be conducted in accordance with updated standards under delegated authority.<sup>236</sup>

87. Decision. We are adopting our proposal to give the Chief of OET delegated authority to engage in limited rulemaking action in order to modify Parts 2, 5, 15, and 18 of rules to reference updated versions of standards that are already referenced in the rules. Thus, to update these references in order to effectuate any degree of change to the substantive obligations of any party subject to FCC regulation, OET must follow APA requirements by, *inter alia*, publishing a notice in the Federal Register, providing

<sup>226</sup> To the extent that ANSI adopts further revisions to the standard prior to 2020 and we propose to adopt them, we can at that time consider whether there is good cause to nevertheless extend use of the 2003 standard through 2020.

<sup>227</sup> For example, Section 15.38 lists the measurement procedures and other standards that are incorporated by reference into Part 15 of the rules. See 47 C.F.R. § 15.38.

<sup>228</sup> See 47 C.F.R. § 0.241(i).

<sup>229</sup> See 47 C.F.R. § 0.241(a)(1).

<sup>230</sup> Notice, 28 FCC Rcd at 1635, para. 70.

<sup>231</sup> 5 U.S.C. §551 *et seq.*

<sup>232</sup> See 5 U.S.C. § 553.

<sup>233</sup> *Id.*

<sup>234</sup> See A2LA comments at 4, TCB Council comments at 9, TIA comments at 17, Cisco comments at 17, and ANSI C63 comments at 14.

<sup>235</sup> See TIA comments at 17 and Cisco comments at 16.

<sup>236</sup> See HP comments at 12.

sufficient opportunity for public comment, and considering the record compiled in the proceeding prior to adopting any substantive update to the standards. This process will permit us to better keep pace with industry standards than if the Commission were required to complete a full rulemaking proceeding for every widely-accepted and expertly-considered update to references in our rules regarding equipment measurement practices. We believe that the public notice requirement adequately addresses HP's concerns. As to TIA's and Cisco's request for transition periods, OET will determine whether there is a need for a transition period, and the appropriate length of any such transition, based on the comments filed in response to each public notice. Finally, we recognize that it is possible that some standards update decisions will be more appropriately considered by the full Commission. Thus, in the event that parties provide convincing evidence that the proposed use of an updated standard would, in fact, raise major compliance issues, we direct OET to refer the matter for review and decision by the Commission.

### 3. Other Issues

88. *Test set-up information.* The Commission proposed to amend Section 2.1033 of the rules to require that applications for Certification include photographs or diagrams of the test set-up for each of the required types of tests applicable to the device for which Certification is requested.<sup>237</sup> It also proposed that diagrams or photographs must show enough detail to confirm other information contained in the test report, and that any photographs must be focused originals without glare or dark spots and must clearly show the test configuration used.<sup>238</sup>

89. *Comments.* Several parties support these proposals.<sup>239</sup> TIA believes that Commission's rules should clearly state that submissions may be in digital or electronic format.<sup>240</sup> Both TIA and Cisco request that the Commission's electronic filing system allow uploading of complete applications as a single file.<sup>241</sup> Bay Area Compliance Laboratories Corporation recommends that the Commission require data submitted with applications to show the time and date of capture.<sup>242</sup>

90. *Decision.* We are amending Section 2.1033 of the rules to require that applications for Certification include photographs or diagrams of the test set-up for each of the required types of tests applicable to the device for which Certification is requested. The photographs or diagrams must show enough detail to confirm other information contained in the test report, and any photographs must clearly show the test configuration used. These changes will make the Certification procedure consistent with the verification and DoC procedures, which require photographs or diagrams, and will allow the Commission to determine whether a test laboratory or TCB tested equipment in accordance with the applicable measurement procedures. The cost of this requirement is negligible because it merely requires a test laboratory or TCB to take a minimal number of additional photographs during testing or draw some relatively simple diagrams and include those with the test report submitted with the application for Certification. There is no need to specify in Section 2.1033 that photographs or diagrams may be in electronic format since the Commission accepts only electronic filings from TCBs.<sup>243</sup> The details of the application submission format (*e.g.*, single or multiple electronic files) are implementation issues that are most appropriately addressed during the filing system design rather than through a rulemaking

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<sup>237</sup> *Notice*, 28 FCC Rcd at 1635, para. 71. These tests may include, for example, radiated emissions, AC line conducted emissions, conducted power, RF safety (SAR), or compliance with the hearing aid compatibility (HAC) requirements. The rules do not currently require that a Certification application include this information, while test set-up photographs or diagrams are required with the information that responsible parties must retain for equipment subject to DoC or verification. See 47 C.F.R. §§ 2.955(a)(3)(vii), 2.1033, and 2.1075(a)(3)(vii).

<sup>238</sup> *Id.*

<sup>239</sup> See IBM comments at 4, Cisco comments at 17, and TIA comments at 17.

<sup>240</sup> See TIA comments at 17.

<sup>241</sup> See TIA comments at 17 and Cisco comments at 17.

<sup>242</sup> See Bay Area Compliance Laboratories reply comments at 2.

proceeding, since codifying such aspects of the filing procedure could limit OET's flexibility in modifying them later. We are not adopting Bay Area Compliance's suggestion regarding a time/date stamp requirement. While we appreciate the intent to further establish the validity of the submitted documentation, in all likelihood such data could be easily altered in conjunction with a fraudulent filing. Thus, codifying such a requirement for all filings would not substantially improve compliance with the rules.

91. *Obsolete rules.* We are removing Sections 15.109(g)(4) and the note to Section 15.31(a). As we stated in the *Notice*, Section 15.109(g)(4) is unnecessary because it merely references former Section 15.107(e), which was deleted in 2002.<sup>244</sup> We further noted that the note in Section 15.31(a)(3) that states digital devices meeting the limits in Sections 15.107(e) and 15.109(g) must be tested using the ANSI C63.4 procedure, is also unnecessary since Section 15.107(e) is no longer in the rules and Section 15.109(g) already makes clear that digital devices tested for compliance with the limits in that section must be tested in accordance with the ANSI C63.4 procedure.<sup>245</sup> Cisco supports the Commission's proposals to remove these sections, and no party opposed them.<sup>246</sup> We adopt these rule revisions because eliminating these obsolete rules will help clarify the requirements applicable to unlicensed devices.

#### **D. Transition period**

92. *Proposals.* Because it may take some time for currently operating laboratories to become fully accredited and comply with the new ANSI C63.4 site validation criteria above 1 GHz, the Commission proposed transition periods for implementing these proposals. Specifically, the Commission proposed to cease accepting applications for laboratories under the Section 2.948 listing program as of the effective date of final rules.<sup>247</sup> Subsequent to the effective date, any laboratory that wishes to be added to the list of laboratories that can perform testing in support of Certification applications must be accredited. Regarding laboratories that are listed pursuant to Section 2.948 as of the effective date of the rules, the Commission also proposed to permit them to continue to perform testing in support of Certification applications until one year after the effective date of the rules.<sup>248</sup> After that date, such laboratories would be required to be accredited in order to continue testing in support of Certification applications. The Commission further proposed that all laboratories, both accredited and unaccredited, listed with the Commission as of the effective date of the rules, would be required to demonstrate compliance with the site validation criteria in ANSI C63.4-2009 no later than one year after publication of final rules in the Federal Register.<sup>249</sup> We proposed that new laboratories that apply to be listed after the effective date of the rules would have to comply with the ANSI C63.4-2009 site validation criteria.

93. *Comments.* A2LA supports the proposed transition periods for ending site listing program and requiring accreditation of laboratories.<sup>250</sup> TIA suggests a two year transition period for compliance with the accreditation and site validation requirements.<sup>251</sup> Due to costs and other physical requirements, ACIL suggests three years to become accredited to ANSI C63.4-2009.<sup>252</sup> Teradata asserts that requiring

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<sup>243</sup> Similarly we will not require a specific format for photographs filed to accompany a description of measurement facilities. See 47 C.F.R. § 2.948(b)(1)(ii).

<sup>244</sup> *Notice*, 28 FCC Rcd at 1636, para. 72.

<sup>245</sup> *Id.*

<sup>246</sup> See Cisco comments at 17.

<sup>247</sup> *Notice*, 28 FCC Rcd at 1636, para. 73.

<sup>248</sup> *Id.*

<sup>249</sup> *Id.*

<sup>250</sup> A2LA comments at 4.

<sup>251</sup> TIA comments at 18.

<sup>252</sup> ACIL comments at 5.

test site validation above 1 GHz to be measured in accordance with CISPR 16-1-4 is burdensome on test laboratories because it may require modifications to test sites. Accordingly, it requests that the proposal to use this method for site validation be delayed for at least 2 years and the use of the alternative absorber on the ground plane be allowed in the interim.<sup>253</sup> Inovonics suggests, regarding the C63.10-2009 standard, a grandfathering period extending from the effective date of the new rule until December 31, 2020, through which manufacturers may obtain equipment authorization using the ANSI C63.4-2003 standard.<sup>254</sup> HP agrees with Inovonics that the Commission should allow a long transition period to implement changes in a measurement procedure.<sup>255</sup> ANSI Standards Committee C63 supports the transition period proposed by the Commission and also suggests that we release a statement confirming that existing equipment tested under the previous standard will be considered to remain compliant with the Commission's rules.<sup>256</sup>

94. *Decision.* We will adopt the transition periods set forth in the *Notice* and apply them to the versions of the standards we adopt, above. Specifically, testing laboratories currently listed by the Commission under the Section 2.948 process will remain recognized for the sooner of one year from the effective date of the rules adopted herein or until the date that their listing expires.<sup>257</sup> As of the effective date of the rules, new laboratories must be accredited in order to be added to the Commission's list of recognized testing laboratories and the Commission will not recognize new 2.948-listed laboratories. Testing laboratories whose 2.948-listings expire within one year of the effective date of the rules may renew their listing but the renewal will be valid only until one year after the effective date of the rules. Applicants for grants of Certification using recognized 2.948-listed testing laboratories that test devices up until one year after the effective date of the rules must submit those test reports for grants of Certification within 90 days of the end of the one-year transition period (*i.e.*, within approximately 15 months of the effective date of the rules). The transition to the new site validation criteria will require testing laboratories to demonstrate compliance with the site validation criteria in ANSI C63.4-2014 clause 5.5.1 a) (CISPR 16-1-4), no later than three years after the effective date of the rules.

#### IV. OTHER MATTERS

95. Lastly, the docket includes a Petition for Rulemaking filed by James E. Whedbee. The petition proposes a new rule stating that a Commission license holder may use devices authorized for use under our Part 15 rules and that such devices would not require a separate equipment authorization.<sup>1</sup> We currently do not place any restrictions on the use of Part 15 devices by a holder of any other Commission license holder as long as the device is used within its authorized parameters. Accordingly, we deny the petition as moot.<sup>2</sup> To the extent that the petitioner intended to propose other alterations to our practice or procedures, it is unclear what the proposed changes would do or why they are needed. We therefore also deny the petition because it does not disclose sufficient reason to justify the institution of a rulemaking proceeding.<sup>3</sup>

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<sup>253</sup> Teradata comments at 2.

<sup>254</sup> Inovonics comments at 5-6.

<sup>255</sup> HP Reply comments at 4-5.

<sup>256</sup> ANSI comments at 14-15.

<sup>257</sup> Laboratories recognized as 2.948-listed are currently required to certify that their information on file with OET is current at least every three years per 47 C.F.R § 2.948(a)(2).

<sup>1</sup> James Whedbee, Petition for Rulemaking, filed March 28, 2013. Whedbee provides proposed text for a new rule, Section 2.817, which would be titled "Licensees Using Part 15 Devices."

<sup>2</sup> See 47 C.F.R § 1.401(e).

<sup>3</sup> See 47 C.F.R § 1.407.

**V. PROCEDURAL MATTERS****A. Final Regulatory Flexibility Analysis**

96. The Regulatory Flexibility Act (RFA) requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.” Accordingly, we have prepared a Final Regulatory Flexibility Analysis concerning the possible impact of the *Report and Order* on small entities. The Final Regulatory Flexibility Analysis is set forth in Appendix B.

**B. Paperwork Reduction Act**

97. This Report and Order contains no new information collection requirements, only non-substantive modifications.

**C. Congressional Review Act**

98. The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act.<sup>1</sup>

**VI. ORDERING CLAUSES**

99. IT IS ORDERED that pursuant to Sections 1, 4(i), 7(a), 301, 302, 303(f), 303(g), 303(r), 307(e) and 332 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 151, 154(i), 157(a), 301, 302a, 303(f), 303(g), 303(r), 307(e), and 332, this Report and Order IS ADOPTED.

100. IT IS FURTHER ORDERED that the rules and requirements adopted herein WILL BECOME EFFECTIVE [thirty days after the date of publication of a summary of this Report and Order in the Federal Register].

101. IT IS FURTHER ORDERED that pursuant to the authority of Section 5(c) of the Communications Act of 1934, as amended, 47 U.S.C. Section 155(c), we delegate authority to the Office of Engineering and Technology as set forth herein.

102. IT IS FURTHER ORDERED that the Petition for Rulemaking filed by James E. Whedbee IS DENIED.

103. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order, including the Final Regulatory Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

104. IT IS FURTHER ORDERED that, pursuant to the authority contained in Sections 4(i), 4(j), and 303 of the Communications Act, as amended, 47 U.S.C. §§ 154(i), 154(j) and 303, that should no petitions for reconsideration or applications for review be timely filed, this proceeding IS **TERMINATED** and ET Docket No. 13-44 IS **CLOSED**.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

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<sup>1</sup> See 5 U.S.C. § 801(a)(1)(A).



**APPENDIX A****List of Parties Filing Comments**Comments

1. ACIL
2. Aerospace and Flight Test Radio Coordinating Council
3. American Association for Laboratory Accreditation (A2LA)
4. American National Standards Institute Accredited Standards Committee C63
5. Cisco Systems, Inc.
6. Cohen, Dippell and Everist, P.C.
7. David Alderman
8. dB Technology
9. Hewlett-Packard Company
10. IBM Corporation
11. Information Technology Industry Council
12. Inovonics
13. James Edwin Whedbee
14. Marcus Spectrum Solutions LLC
15. National Association of Broadcasters
16. National Cooperation for Laboratory Accreditation
17. Northwest EMC, Inc.
18. Sirius XM Radio Inc.
19. TCB Council
20. Telecommunications Industry Association
21. Teradata Corporation

Reply comments

22. American National Standards Institute Accredited Standards Committee C63
23. ARRL, the national association for Amateur Radio
24. Bay Area Compliance Laboratories Corp.
25. Cohen, Dippell and Everist, P.C.
26. Dr. John E. Will
27. Hewlett-Packard Company
28. Inovonics
29. International Laboratory Accreditation Cooperation (ILAC)

**APPENDIX B****Final Rules**

Parts 0, 2, 15 and 68 of Title 47 of the Code of Federal Regulations are amended as follows:

**PART 0 COMMISSION ORGANIZATION**

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

**Authority:** Secs. 5, 48 Stat. 1068, as amended; 47 U.S.C. 155

2. Section 0.241 is amended by revising paragraphs (a)(1) and (f) to read as follows:

**§ 0.241 Authority delegated.**

(a) \* \* \*

(1) Notices of proposed rulemaking and of inquiry and final orders in rulemaking proceedings, inquiry proceedings and non-editorial orders making changes, except that:

(i) The Chief of the Office of Engineering and Technology is delegated authority, together with the Chief of the Wireless Telecommunications Bureau, to adopt certain technical standards applicable to hearing aid compatibility under §20.19 of this chapter, as specified in §20.19(k).

(ii) The Chief of the Office of Engineering and Technology is delegated authority, by notice-and-comment rulemaking if required by statute or otherwise in the public interest, to issue an order amending Part 2, 5, 15, or 18 rules that reference industry standards to specify revised versions of the standards. This delegation is limited to modifying rules to reference revisions to standards that are already in the rules and not to incorporate a new standard into the rules, and is limited to the approval of changes to the technical standards that do not raise major compliance issues.

\* \* \* \* \*

(f) The Chief of the Office of Engineering and Technology is authorized to enter into agreements with the National Institute of Standards and Technology and other accreditation bodies to perform accreditation of test laboratories pursuant to §2.948(e) of this chapter. In addition, the Chief is authorized to make determinations regarding the continued acceptability of individual accrediting organizations and accredited laboratories.

\* \* \* \* \*

3. Section 0.408 is amended by revising paragraph (b) as follows.

**§ 0.408 OMB control numbers and expiration dates assigned pursuant to the Paperwork Reduction Act of 1995.**

\* \* \* \* \*

(b) *Display.*

OMB Control No.	FCC form number or 47 CFR section or part, docket number or title identifying the collection	OMB expiration date
* * * * *	* * * * *	* * * * *
3060-0636	Secs. 2.906, 2.909, 2.1071, 2.1075, 2.1077, and 15.37	05/31/15
* * * * *	* * * * *	* * * * *

**PART 1—GENERAL RULES OF PRACTICE AND PROCEDURE**

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

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

5. Section 1.1103 is amended to read as follows:

**§ 1.1103 Schedule of charges for equipment approval, experimental radio services (or service).**

Payment can be made electronically using the Commission's electronic filing and payment system “Fee Filer” ([www.fcc.gov/feefiler](http://www.fcc.gov/feefiler)). Remit manual filings and/or payments for these services to: Federal Communications Commission, OET Services, P.O. Box 979095, St. Louis, MO 63197-9000.

Service	FCC Form No.	Fee amount	Payment type code
<b>Equipment Approval Service(s)</b>			
<b>1. Advance Approval of Subscription TV Systems</b>	Corres & 159	\$4,180.00	EIS
a. Request for Confidentiality For Advance Approval of Subscription TV Systems	Corres & 159	\$195.00	EBS
<b>2. Assignment of Grantee Code:</b>			
a. For all Application Types, except Subscription TV (Electronic Filing Only—Optional Electronic Payment)	Electronic Assignment & Form 159 or Optional Electronic Payment	\$65.00	EAG
<b>3. Experimental Radio Service(s):</b>			
a. New Station Authorization	442 & 159	\$65.00	EAE

b. Modification of Authorization	442 & 159	\$65.00	EAE
c. Renewal of Station Authorization	405 & 159	\$65.00	EAE
d. Assignment of License or Transfer of Control	702 & 159 or	\$65.00	EAE
	703 & 159	\$65.00	EAE
e. Special Temporary Authority	Corres & 159	\$65.00	EAE
f. Additional fee required for any of the above applications that request withholding from public inspection	Corres & 159	\$65.00	EAE

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

6. The authority citation for Part 2 continues to read as follows:

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

7. Section 2.901 is revised to read as follows:

**§ 2.901 Basis and purpose.**

(a) In order to carry out its responsibilities under the Communications Act and the various treaties and international regulations, and in order to promote efficient use of the radio spectrum, the Commission has developed technical standards for radio frequency equipment and parts or components thereof. The technical standards applicable to individual types of equipment are found in that part of the rules governing the service wherein the equipment is to be operated. In addition to the technical standards provided, the rules governing the service may require that such equipment be verified by the manufacturer or importer, be authorized under a Declaration of Conformity, or receive a grant of Certification from a Telecommunications Certification Body.

(b) The following sections describe the verification procedure, the procedure for a Declaration of Conformity, and the procedures to be followed in obtaining certification and the conditions attendant to such a grant.

8. Section 2.906 is amended by revising paragraph (a) to read as follows:

**§ 2.906 Declaration of Conformity.**

(a) A Declaration of Conformity is a procedure where the responsible party, as defined in §2.909, makes measurements or takes other necessary steps to ensure that the equipment complies with the appropriate technical standards. Submittal of a sample unit or representative data to the Commission demonstrating compliance is not required unless specifically requested pursuant to §2.945.

\* \* \* \* \*

9. Section 2.907(a) is amended by revising paragraph (a) to read as follows:

**§ 2.907 Certification.**

(a) Certification is an equipment authorization approved by the Commission or issued by a Telecommunications Certification Body (TCB) and authorized under the authority of the Commission, based on representations and test data submitted by the applicant.

\* \* \* \* \*

10. Section 2.909 is amended by revising paragraph (a) to read as follows:

**§ 2.909 Responsible party.**

The following parties are responsible for the compliance of radio frequency equipment with the applicable standards:

(a) In the case of equipment which requires the issuance of a grant of certification, the party to whom that grant of certification is issued (the grantee). If the radio frequency equipment is modified by any party other than the grantee and that party is not working under the authorization of the grantee pursuant to §2.929(b), the party performing the modification is responsible for compliance of the product with the applicable administrative and technical provisions in this chapter.

\* \* \* \* \*

11. Section 2.910 is added to read as follows:

**§ 2.910 Incorporation by reference.**

(a) The materials listed in this section are incorporated by reference in this part. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding addresses as noted, and all are available for inspection at the Federal Communications Commission, 445 12th St., SW., Reference Information Center, Room CY-A257, Washington, DC 20554, (202) 418-0270, and 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) The following material is available for purchase from at least one of the following addresses: Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112, (800) 854-7179, or at <http://global.ihs.com>; or American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY 10036, (212) 642-4900, or at <http://webstore.ansi.org/ansidocstore/default.asp>.

(1) ANSI C63.4-2014: "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz," sections 5.4.4 through 5.5 IBR approved for § 2.948.

(2) CISPR 16-1-4:2010-04: “Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Radiated disturbances”, IBR approved for § 2.948.

(c) The International Organization for Standardization (ISO), 1, ch. De la Voie-Creuse, CP 56, CH-1211, Geneva 20, Switzerland; [www.iso.org](http://www.iso.org) ; Tel.: +41 22 749 01 11; Fax: +41 22 733 34 30; email: [central@iso.org](mailto:central@iso.org) . (ISO publications can also be purchased from the American National Standards Institute (ANSI) through its NSSN operation ([www.nssn.org](http://www.nssn.org)), at Customer Service, American National Standards Institute, 25 West 43rd Street, New York NY 10036, telephone (212) 642-4900.)

(1) ISO/IEC 17011:2004, “Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies,” IBR approved for §§ 2.948, 2.949 and 2.960.

(2) ISO/IEC 17025:2005, “General requirements for the competence of calibration and testing laboratories,” IBR approved for §§ 2.948, 2.949 and 2.962.

(3) ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services,” IBR approved for §§ 2.950, 2.960 and 2.962.

12. Section 2.911 is revised to read as follows:

**§ 2.911 Application requirements.**

(a) All requests for equipment authorization shall be submitted in writing to a Telecommunication Certification Body (TCB) in a manner prescribed by the TCB.

(b) A TCB shall submit an electronic copy of each equipment authorization application to the Commission pursuant to § 2.962(f)(6) on a form prescribed by the Commission at <https://www.fcc.gov/eas>.

(c) Each application that a TCB submits to the Commission shall be accompanied by all information required by this subpart and by those parts of the rules governing operation of the equipment, the applicant’s certifications required by paragraphs (d)(1) and (d)(2) of this section, and by requisite test data, diagrams, photographs, etc., as specified in this subpart and in those sections of rules under which the equipment is to be operated.

(d) The applicant shall provide to the TCB all information that the TCB requests to process the equipment authorization request and to submit the application form prescribed by the Commission and all exhibits required with this form.

(1) The applicant shall provide a written and signed certification to the TCB that all statements it makes in its request for equipment authorization are true and correct to the best of its knowledge and belief.

(2) The applicant shall provide a written and signed certification to the TCB that the applicant complies with the requirements in § 1.2002 of this chapter concerning the Anti-Drug Abuse Act of 1988.

(3) Each request for equipment authorization submitted to a TCB, including amendments thereto, and related statements of fact and authorizations required by the Commission, shall be signed by the applicant if the applicant is an individual; by one of the partners if the applicant is a partnership; by an officer, if the applicant is a corporation; or by a member who is an officer, if the applicant is an unincorporated association: Provided, however, that the application may be signed by the applicant’s authorized representative who shall indicate his title, such as plant manager, project engineer, etc.

(4) Information on the Commission's equipment authorization requirements can be obtained from the Internet at <https://www.fcc.gov/eas>.

(e) Technical test data submitted to the TCB and to the Commission shall be signed by the person who performed or supervised the tests. The person signing the test data shall attest to the accuracy of such data. The Commission or TCB may require the person signing the test data to submit a statement showing that they are qualified to make or supervise the required measurements.

(f) Signed, as used in this section, means an original handwritten signature; however, the Office of Engineering and Technology may allow signature by any symbol executed or adopted by the applicant or TCB with the intent that such symbol be a signature, including symbols formed by computer-generated electronic impulses.

13. Section 2.913 is removed.

**§ 2.913 Submittal of equipment authorization application or information to the Commission.**

**[Removed]**

14. Section 2.915 is amended by revising paragraph (a) and adding paragraphs (d), (e) and (f) to read as follows:

**§ 2.915 Grant of application.**

(a) A Commission recognized TCB will grant an application for certification if it finds from an examination of the application and supporting data, or other matter which it may officially notice, that:

\* \* \* \* \*

(d) Grants will be effective from the date of publication on the Commission website and shall show any special condition(s) attaching to the grant. The official copy of the grant shall be maintained on the Commission website.

(e) The grant shall identify the approving TCB and the Commission as the issuing authority.

(f) In cases of a dispute the Commission will be the final arbiter.

15. Section 2.917 is amending by revising paragraph (c) to read as follows:

**§2.917 Dismissal of application.**

\* \* \* \* \*

(c) If an applicant is requested to file additional documents or information and fails to submit the requested material within the specified time period, the application may be dismissed.

16. Section 2.924 is revised to read as follows:

**§ 2.924 Marketing of electrically identical equipment having multiple trade names and models or type numbers under the same FCC Identifier.**

The grantee of an equipment authorization may market devices having different model/type numbers or trade names without additional authorization, provided that such devices are electrically identical and the

equipment bears an FCC Identifier validated by a grant of certification. A device will be considered to be electrically identical if no changes are made to the authorized device, or if the changes made to the device would be treated as class I permissive changes within the scope of §2.1043(b)(1). Changes to the model number or trade name by anyone other than the grantee, or under the authorization of the grantee, shall be performed following the procedures in §2.933.

17. Section 2.925(b)(3) is amended by deleting paragraph (b)(3) and renumbering existing paragraph (b)(4) as paragraph (b)(3).

**§ 2.925 Identification of equipment.**

\* \* \* \* \*

(b)(3) For a transceiver, the receiver portion of which is subject to verification pursuant to § 15.101 of this chapter, the FCC Identifier required for the transmitter portion shall be preceded by the term FCC ID.

\* \* \* \* \*

18. Section 2.926 is amended by revising paragraphs (a), (c)(1), and (e) to read as follows:

**§ 2.926 FCC identifier.**

(a) A grant of certification will list the validated FCC Identifier consisting of the grantee code assigned by the FCC pursuant to paragraph (b) of this section, and the equipment product code assigned by the grantee pursuant to paragraph (c) of this section. See §2.925.

\* \* \* \* \*

(c) \* \* \*

(1) After assignment of a grantee code each grantee will continue to use the same grantee code for subsequent equipment authorization applications.

In the event the grantee name is changed or ownership is transferred, the circumstances shall be reported to the Commission so that a new grantee code can be assigned, if appropriate. See §§ 2.929(c) and 2.929(d) for additional information.

\* \* \* \* \*

(e) No FCC Identifier may be used on equipment to be marketed unless that specific identifier has been validated by a grant of equipment certification. This shall not prohibit placement of an FCC identifier on a transceiver which includes a verified receiver subject to § 15.101, provided that the transmitter portion of such transceiver is covered by a valid grant of type acceptance or certification. The FCC Identifier is uniquely assigned to the grantee and may not be placed on the equipment without authorization by the grantee. See § 2.803 for conditions applicable to the display at trade shows of equipment which has not been granted equipment authorization where such grant is required prior to marketing. Labelling of such equipment may include model or type numbers, but shall not include a purported FCC Identifier.

19. Section 2.927 is revised to read as follows:



**§ 2.927 Limitations on grants.**

(a) A grant of certification is valid only when the FCC Identifier is permanently affixed on the device and remains effective until set aside, revoked, withdrawn, surrendered, or terminated.

(b) A grant of certification recognizes the determination that the equipment has been shown to be capable of compliance with the applicable technical standards if no unauthorized change is made in the equipment and if the equipment is properly maintained and operated. The issuance of a grant of equipment certification shall not be construed as a finding with respect to matters not encompassed by the Commission's rules, especially with respect to compliance with 18 U.S.C. 2512.

(c) No person shall, in any advertising matter, brochure, etc., use or make reference to an equipment authorization in a deceptive or misleading manner or convey the impression that such certification reflects more than a Commission-authorized determination that the device or product has been shown to be capable of compliance with the applicable technical standards of the Commission's rules.

20. Section 2.929 is amended by revising paragraphs (a), (c), and (d) to read as follows:

**§ 2.929 Changes in name, address, ownership or control of grantee.**

(a) An equipment authorization may not be assigned, exchanged or in any other way transferred to a second party, except as provided in this section.

\* \* \* \* \*

(c) Whenever there is a change in the name and/or address of the grantee of certification, notice of such change(s) shall be submitted to the Commission via the Internet at <https://apps.fcc.gov/eas> within 30 days after the grantee starts using the new name and/or address.

(d) In the case of transactions affecting the grantee, such as a transfer of control or sale to another company, mergers, or transfer of manufacturing rights, notice must be given to the Commission via the Internet at <https://apps.fcc.gov/eas> within 60 days after the consummation of the transaction. Depending on the circumstances in each case, the Commission may require new applications for certification. In reaching a decision the Commission will consider whether the acquiring party can adequately ensure and accept responsibility for continued compliance with the regulations. In general, new applications for each device will not be required. A single application for certification may be filed covering all the affected equipment.

21. Section 2.932 is amended by revising paragraph (d) to read as follows:

**§ 2.932 Modification of equipment.**

\* \* \* \* \*

(d) All requests for permissive changes must be accompanied by the anti-drug abuse certification required under § 1.2002 of this chapter.

22. Sections 2.933 is amended by revising paragraphs (a), (b) and (b)(5) to read as follows:

**§ 2.933 Change in identification of equipment.**

(a) A new application for certification shall be filed whenever there is a change in the FCC Identifier for the equipment with or without a change in design, circuitry or construction. However, a change in the model/type number or trade name performed in accordance with the provisions in § 2.924 of this chapter is not considered to be a change in identification and does not require additional authorization.

(b) An application filed pursuant to paragraph (a) of this section where no change in design, circuitry or construction is involved, need not be accompanied by a resubmission of equipment or measurement or test data customarily required with a new application, unless specifically requested. In lieu thereof, the applicant shall attach a statement setting out:

\* \* \* \* \*

(5) The photographs required by § 2.1033(b)(7) or § 2.1033(c)(12) showing the exterior appearance of the equipment, including the operating controls available to the user and the identification label. Photographs of the construction, the component placement on the chassis, and the chassis assembly are not required to be submitted unless specifically requested.

\* \* \* \* \*

23. Section 2.936 is removed.

**§ 2.936 FCC inspection.**

[Removed]

24. Section 2.943 is removed.

**§ 2.943 Submission of equipment for testing.**

[Removed]

25. Section 2.945 is revised to read as follows:

**§ 2.945 Submission of equipment for testing and equipment records.**

(a) *Prior to certification.* (1) The Commission or a Telecommunication Certification Body (TCB) may require an applicant for certification to submit one or more sample units for measurement at the Commission's laboratory or the TCB.

(2) If the applicant fails to provide a sample of the equipment, the TCB may dismiss the application without prejudice.

(3) In the event the applicant believes that shipment of the sample to the Commission's laboratory or the TCB is impractical because of the size or weight of the equipment, or the power requirement, or for any other reason, the applicant may submit a written explanation why such shipment is impractical and should not be required.

(4) The Commission may take administrative sanctions against a grantee of certification that fails to respond within 21 days to a Commission or TCB request for an equipment sample, such as suspending action on applications for equipment authorization submitted by that party while the matter is being resolved. The Commission may consider extensions of time upon submission of a showing of good cause.

(b) *Subsequent to equipment authorization.* (1) The Commission may request that the responsible party or any other party marketing equipment subject to this chapter submit a sample of the equipment, or provide a voucher for the equipment to be obtained from the marketplace, to determine the extent to which

production of such equipment continues to comply with the data filed by the applicant or on file with the responsible party for equipment subject to verification or Declaration of Conformity. The Commission may request that a sample or voucher to obtain a product from the marketplace be submitted to the Commission, or in the case of equipment subject to certification, to the TCB that certified the equipment.

(2) A TCB may request samples of equipment that it has certified from the grantee of certification, or request a voucher to obtain a product from the marketplace, for the purpose of performing post-market surveillance as described in § 2.962. TCBs must document their sample requests to show the date they were sent and provide this documentation to the Commission upon request.

(3) The cost of shipping the equipment to the Commission's laboratory and back to the party submitting the equipment shall be borne by the party from which the Commission requested the equipment.

(4) In the event a party believes that shipment of the sample to the Commission's laboratory or the TCB is impractical because of the size or weight of the equipment, or the power requirement, or for any other reason, that party may submit a written explanation why such shipment is impractical and should not be required.

(5) Failure of a responsible party or other party marketing equipment subject to this chapter to comply with a request from the Commission or TCB for equipment samples or vouchers within 21 days may be cause for actions such as such as suspending action on applications for certification submitted by a grantee or forfeitures pursuant to § 1.80 of this chapter. The Commission or TCB requesting the sample may consider extensions of time upon submission of a showing of good cause.

(c) *Submission of records.* Upon request by the Commission, each responsible party shall submit copies of the records required by §§ 2.938, 2.955, and 2.1075 to the Commission. Failure of a responsible party or other party marketing equipment subject to this chapter to comply with a request from the Commission for records within 21 days may be cause for forfeiture, pursuant to § 1.80 of this chapter. The Commission may consider extensions of time upon submission of a showing of good cause.

(d) *Inspection by the Commission.* Upon request by the Commission, each responsible party shall make its manufacturing plant and facilities available for inspection.

26. Section 2.946 is removed.

**§ 2.946 Penalty for failure to provide test samples and data.**

[Removed]

27. Sections 2.947 is amended by revising sections (a) and (e) to read as follows:

**§ 2.947 Measurement procedure.**

(a) Test data must be measured in accordance with the following standards or measurement procedures:

\* \* \* \* \*

(e) If deemed necessary, additional information may be required concerning the measurement procedures employed in obtaining the data submitted for equipment authorization purposes.

28. Section 2.948 is revised to read as follows:

**§ 2.948 Measurement facilities.**

- (a) Equipment authorized under the certification or Declaration of Conformity (DoC) procedure shall be tested at a laboratory that is accredited in accordance with paragraph (e) of this section.
- (b) A laboratory that makes measurements of equipment subject to an equipment authorization under the certification, DoC or verification procedure shall compile a description of the measurement facilities employed.
- (1) The description of the measurement facilities shall contain the following information:
- (i) Location of the test site.
  - (ii) Physical description of the test site accompanied by photographs that clearly show the details of the test site.
  - (iii) A drawing showing the dimensions of the site, physical layout of all supporting structures, and all structures within 5 times the distance between the measuring antenna and the device being measured.
  - (iv) Description of structures used to support the device being measured and the test instrumentation.
  - (v) List of measuring equipment used.
  - (vi) Information concerning the calibration of the measuring equipment, i.e., the date the equipment was last calibrated and how often the equipment is calibrated.
  - (vii) For a measurement facility that will be used for testing radiated emissions, a plot of site attenuation data taken pursuant to paragraph (d) of this section.
- (2) The description of the measurement facilities shall be provided to a laboratory accreditation body upon request.
- (3) The description of the measurement facilities shall be retained by the party responsible for verification of equipment and provided to the Commission upon request.
- (i) The party responsible for verification of equipment may rely upon the description of the measurement facilities retained by an independent laboratory that performed the tests. In this situation, the party responsible for verification of the equipment is not required to retain a duplicate copy of the description of the measurement facilities.
  - (ii) No specific site calibration data is required for equipment that is verified for compliance based on measurements performed at the installation site of the equipment. The description of the measurement facilities may be retained at the site at which the measurements were performed.
- (c) The Commission will maintain a list of accredited laboratories that it has recognized. The Commission will make publicly available a list of those laboratories that have indicated a willingness to perform testing for the general public. Inclusion of a facility on the Commission's list does not constitute Commission endorsement of that facility. In order to be included on this list, the accrediting organization (or Designating Authority in the case of foreign laboratories) must submit the information listed below to the Commission's laboratory:

- (1) Laboratory name, location of test site(s), mailing address and contact information;
  - (2) Name of accrediting organization;
  - (3) Scope of laboratory accreditation;
  - (4) Date of expiration of accreditation;
  - (5) Designation number;
  - (6) FCC Registration Number (FRN);
  - (7) A statement as to whether or not the laboratory performs testing on a contract basis;
  - (8) For laboratories outside the United States, the name of the mutual recognition agreement or arrangement under which the accreditation of the laboratory is recognized;
  - (9) Other information as requested by the Commission.
- (d) When the measurement method used requires the testing of radiated emissions on a validated test site, the site attenuation must comply with the requirements of Sections 5.4.4 through 5.5 of the following procedure: American National Standards Institute (ANSI) C63.4-2014: “Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz” (incorporated by reference, see § 2.910). Measurement facilities used to make radiated emission measurements from 30 MHz to 1 GHz shall comply with the site validation requirements in ANSI C63.4-2014 (clause 5.4) and for radiated emission measurements from 1 GHz to 40 GHz shall comply with the site validation requirement of ANSI C63.4-2014 (clause 5.5.1 a) 1)), such that the site validation criteria called out in CISPR 16-1-4:2010-04, “Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Radiated disturbances,” is met. Test site revalidation shall occur on an interval not to exceed three years.
- (e) A laboratory that has been accredited with a scope covering the measurements required for the types of equipment that it will test shall be deemed competent to test and submit test data for equipment subject to verification, Declaration of Conformity, and certification. Such a laboratory shall be accredited by a Commission recognized accreditation organization based on the International Organization for Standardization/International Electrotechnical Commission International Standard ISO/IEC 17025, “General requirements for the competence of calibration and testing laboratories.” The organization accrediting the laboratory must be recognized by the Commission's Office of Engineering and Technology, as indicated in §0.241 of this chapter, to perform such accreditation based on International Standard ISO/IEC 17011:2004, “Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies.” The frequency for reassessment of the test facility and the information that is required to be filed or retained by the testing party shall comply with the requirements established by the accrediting organization, but shall occur on an interval not to exceed two years.
- (f) The accreditation of a laboratory located outside of the United States, or its possessions, will be acceptable only under one of the following conditions:
- (1) If the accredited laboratory has been designated by a foreign Designating Authority and recognized by the Commission under the terms of a government-to-government Mutual Recognition Agreement/Arrangement (MRA); or

(2) If the laboratory is located in a country that does not have an MRA with the United States, then it must be accredited by an organization recognized by the Commission under the provisions of § 2.949 for performing accreditations in the country where the laboratory is located.

29. Section 2.949 is added to read as follows:

**§ 2.949 Recognition of laboratory accreditation bodies.**

(a) A party wishing to become a laboratory accreditation body recognized by OET must submit a written request to the Chief of OET requesting such recognition. OET will make a determination based on the information provided in support of the request for recognition.

(b) Applicants shall provide the following information as evidence of their credentials and qualifications to perform accreditation of laboratories that test equipment to Commission requirements, consistent with the requirements of § 2.948(e) of the Commission's rules. OET may request additional information, or showings, as needed, to determine the applicant's credentials and qualifications.

(1) Successful completion of an ISO/IEC 17011:2004, "Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies" peer review, such as being a signatory to an accreditation agreement that is acceptable to the Commission.

(2) Experience with the accreditation of electromagnetic compatibility (EMC), radio and telecom testing laboratories to ISO/IEC 17025:2005, "General requirements for the competence of calibration and testing laboratories."

(3) Accreditation personnel/assessors with specific technical experience on the Commission equipment authorization rules and requirements.

(4) Procedures and policies developed for the accreditation of testing laboratories for FCC equipment authorization programs.

30. Section 2.950 is added to read as follows :

**§ 2.950 Transition periods.**

(a) As of [effective date of the rules] the Commission will no longer accept applications for Commission issued grants of equipment certification.

(b) Prior to September 15, 2015 a TCB shall be accredited to either ISO/IEC Guide 65:1996, "General requirements for bodies operating product certification systems," or ISO/IEC 17065:2012, "Conformity assessment - Requirements for bodies certifying products, processes and services." On or after September 15, 2015 a TCB shall be accredited to ISO/IEC 17065.

(c) Prior to September 15, 2015 an organization accrediting the prospective telecommunication certification body shall be capable of meeting the requirements and conditions of ISO/IEC Guide 61:1996 "General requirements for assessment and accreditation of certification/registration bodies" or ISO/IEC 17011:2004, "Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies." On or after September 15, 2015 an organization accrediting the prospective telecommunication certification body shall be capable of meeting the requirements and conditions of ISO/IEC 17011:2004.

(d) Prior to September 15, 2015 an organization accrediting the prospective accredited testing laboratory shall be capable of meeting the requirements and conditions of ISO/IEC Guide 58:1993 "Calibration and testing laboratory accreditation systems – General requirements for operation and recognition" or ISO/IEC 17011:2004, "Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies." On or after September 15, 2015 an organization accrediting the prospective accredited testing laboratory shall be capable of meeting the requirements and conditions of ISO/IEC 17011:2004.

(e) The Commission will no longer accept applications for § 2.948 test site listing as of [effective date of the rules]. Laboratories that are listed by the Commission under the § 2.948 process will remain listed until the sooner of their expiration date or [one year from the effective date of the rules] and may continue to submit test data in support of certification applications for fifteen months from [effective date of the

rules]. Laboratories with an expiration date before [one year from the effective date of the rules] may request the Commission to extend their expiration date to [one year from the effective date of the rules].

(f) Measurement facilities used to make radiated emission measurements from 1 GHz to 40 GHz shall comply with the site validation options of ANSI C63.4-2014, “American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz,” clause 5.5.1 a) (CISPR 16-1-4:2010-04, “Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Radiated disturbances”) by [three years from the effective date of the rules].

(g) Measurements for intentional radiators subject to Part 15 are to be made using the procedures in ANSI C63.10-2013, “American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices” by [one year from effective date of the rules].

(h) Measurements for unintentional radiators are to be made using the procedures in ANSI C63.4-2014, by [one year from effective date of the rules].

31. Section 2.953 is amended by revising paragraph (b) to read as follows.

**§ 2.953 Responsibility for compliance.**

\* \* \* \* \*

(b) The importer of equipment subject to verification may, upon receiving a written statement from the manufacturer that the equipment complies with the appropriate technical standards, rely on the manufacturer or independent testing agency to verify compliance. The test records required by § 2.955 however should be in the English language and made available to the Commission upon a reasonable request, in accordance with § 2.945.

\* \* \* \* \*

32. Section 2.956 is removed.

**§ 2.956 FCC Inspection and submission of equipment for testing.**

**[Removed]**

33. Section 2.960 is by amending by revising the section heading and paragraphs (a), (b) and (c)(1) to read as follows:

**§ 2.960 Recognition of Telecommunication Certification Bodies (TCBs).**

(a) The Commission may recognize Telecommunication Certification Bodies (TCBs) which have been designated according to requirements of paragraph (b) or (c) of this section to issue grants of certification as required under this part. Certification of equipment by a TCB shall be based on an application with all the information specified in this part. The TCB shall review the application to determine compliance with the Commission's requirements and shall issue a grant of equipment certification in accordance with § 2.911.

(b) In the United States, TCBs shall be accredited and designated by the National Institute of Standards and Technology (NIST) under its National Voluntary Conformity Assessment Evaluation (NVCASE) program, or other recognized programs based on ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services,” to comply with the Commission's qualification criteria for TCBs. NIST may, in accordance with its procedures, allow other appropriately qualified accrediting bodies to accredit TCBs. TCBs shall comply with the requirements in § 2.962 of this part.



(c) \* \* \*

(1) The organization accrediting the prospective telecommunication certification body shall be capable of meeting the requirements and conditions of ISO/IEC 17011:2004, “Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies,”

\* \* \* \* \*

34. Section 2.962 is revised to read as follows:

**§ 2.962 Requirements for Telecommunication Certification Bodies.**

(a) Telecommunication certification bodies (TCBs) designated by NIST, or designated by another authority pursuant to an effective bilateral or multilateral mutual recognition agreement or arrangement to which the United States is a party, shall comply with the requirements of this section.

(b) *Certification methodology.* (1) The certification system shall be based on type testing as identified in ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services.”

(2) Certification shall normally be based on testing no more than one unmodified representative sample of each product type for which certification is sought. Additional samples may be requested if clearly warranted, such as when certain tests are likely to render a sample inoperative.

(c) *Criteria for Designation.* (1) To be designated as a TCB under this section, an entity shall, by means of accreditation, meet all the appropriate specifications in ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services,” for the scope of equipment it will certify. The accreditation shall specify the group of equipment to be certified and the applicable regulations for product evaluation.

(2) The TCB shall demonstrate expert knowledge of the regulations for each product with respect to which the body seeks designation. Such expertise shall include familiarity with all applicable technical regulations, administrative provisions or requirements, as well as the policies and procedures used in the application thereof.

(3) The TCB shall have the technical expertise and capability to test the equipment it will certify and shall also be accredited in accordance with ISO/IEC 17025:2005, “General requirements for the competence of calibration and testing laboratories,” to demonstrate it is competent to perform such tests.

(4) The TCB shall demonstrate an ability to recognize situations where interpretations of the regulations or test procedures may be necessary. The appropriate key certification and laboratory personnel shall demonstrate knowledge of how to obtain current and correct technical regulation interpretations. The competence of the TCB shall be demonstrated by assessment. The general competence, efficiency, experience, familiarity with technical regulations and products covered by those technical regulations, as well as compliance with applicable parts of the ISO/IEC 17025:2005, “General requirements for the competence of calibration and testing laboratories,” and ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services,” shall be taken into consideration during assessment.

(5) A TCB shall participate in any consultative activities, identified by the Commission or NIST, to facilitate a common understanding and interpretation of applicable regulations.

(6) The Commission will provide public notice of the specific methods that will be used to accredit TCBs, consistent with these qualification criteria.

(7) A TCB shall be reassessed for continued accreditation on intervals not exceeding two years.

(d) *External resources.* (1) In accordance with the provisions of ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services,” the evaluation of a product, or a portion thereof, may be performed by bodies that meet the applicable requirements of ISO/IEC 17025:2005, “General requirements for the competence of calibration and testing laboratories,” in accordance with the applicable provisions of ISO/IEC 17065 for external resources (outsourcing) and other relevant standards. Evaluation is the selection of applicable requirements and the determination that those requirements are met. Evaluation may be performed using internal TCB resources or external (outsourced) resources.

(2) A TCB shall not outsource review and certification decision activities.

(3) When external resources are used to provide the evaluation function, including the testing of equipment subject to certification, the TCB shall be responsible for the evaluation and shall maintain appropriate oversight of the external resources used to ensure reliability of the evaluation. Such oversight shall include periodic audits of products that have been tested and other activities as required in ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services,” when a certification body uses external resources for evaluation.

(e) *Recognition of a TCB.* (1)(i) The Commission will recognize as a TCB any organization in the United States that meets the qualification criteria and is accredited and designated by NIST or NIST’s recognized accreditor as provided in § 2.960(b) of this chapter.

(ii) The Commission will recognize as a TCB any organization outside the United States that meets the qualification criteria and is designated pursuant to an effective bilateral or multilateral MRA as provided in § 2.960(c) of this chapter.

(2) The Commission will withdraw its recognition of a TCB if the TCB's designation or accreditation is withdrawn, if the Commission determines there is just cause for withdrawing the recognition, or if the TCB requests that it no longer hold its designation or recognition. The Commission will limit the scope of equipment that can be certified by a TCB if its accreditor limits the scope of its accreditation or if the Commission determines there is good cause to do so. The Commission will notify a TCB in writing of its intention to withdraw or limit the scope of the TCB’s recognition and provide at least 60 days for the TCB to respond. In the case of a TCB designated and recognized pursuant to an effective bilateral or multilateral mutual recognition agreement or arrangement (MRA), the Commission shall consult with the Office of the United States Trade Representative (USTR), as necessary, concerning any disputes arising under an MRA for compliance with the Telecommunications Trade Act of 1988 (Section 1371–1382 of the Omnibus Trade and Competitiveness Act of 1988).

(3) The Commission will notify a TCB in writing when it has concerns or evidence that the TCB is not certifying equipment in accordance with the Commission’s rules and policies and request that it explain and correct any apparent deficiencies. The Commission may require that all applications for the TCB be processed under the pre-approval guidance procedure in § 2.964 of this chapter for at least 30 days, and will provide a TCB with 30 days’ notice of its intent to do so unless good cause exists for providing shorter notice. The Commission may request that a TCB’s Designating Authority or accreditation body investigate and take appropriate corrective actions as required, and the Commission may initiate action to limit or withdraw the recognition of the TCB as described in § 2.962(e)(2) of this chapter.

(4) If the Commission withdraws its recognition of a TCB, all certifications issued by that TCB will remain valid unless specifically set aside or revoked by the Commission under paragraph (f)(5) of this section.

(5) A list of recognized TCBs will be published by the Commission.

(f) *Scope of responsibility.* (1) A TCB shall certify equipment in accordance with the Commission's rules and policies.

(2) A TCB shall accept test data from any Commission-recognized accredited test laboratory, subject to the requirements in ISO/IEC 17065:2012, "Conformity assessment - Requirements for bodies certifying products, processes and services," and shall not unnecessarily repeat tests.

(3) A TCB may establish and assess fees for processing certification applications and other Commission-required tasks.

(4) A TCB may only act on applications that it has received or which it has issued a grant of certification.

(5) A TCB shall dismiss an application which is not in accordance with the provisions of this subpart or when the applicant requests dismissal, and may dismiss an application if the applicant does not submit additional information or test samples requested by the TCB.

(6) Within 30 days of the date of grant of certification the Commission or TCB issuing the grant may set aside a grant of certification that does not comply with the requirements or upon the request of the applicant. A TCB shall notify the applicant and the Commission when a grant is set aside. After 30 days, the Commission may revoke a grant of certification through the procedures in § 2.939 of this part.

(7) A TCB shall follow the procedures in §2.964 of this part for equipment on the pre-approval guidance list.

(8) A TCB shall supply an electronic copy of each certification application and all necessary exhibits to the Commission prior to grant or dismissal of the application. Where appropriate, the application must be accompanied by a request for confidentiality of any material that may qualify for confidential treatment under the Commission's Rules.

(9) A TCB shall grant or dismiss each certification application through the Commission's electronic system.

(10) A TCB may not:

(i) Grant a waiver of the rules;

(ii) Take enforcement actions; or

(iii) Authorize a transfer of control of a grantee.

(11) All TCB actions are subject to Commission review.

(g) *Post-market surveillance requirements.* (1) In accordance with ISO/IEC 17065:2012, "Conformity assessment - Requirements for bodies certifying products, processes and services," a TCB shall perform

appropriate post-market surveillance activities. These activities shall be based on type testing a certain number of samples of the total number of product types which the certification body has certified.

(2) The Chief of the Office of Engineering and Technology (OET) has delegated authority under § 0.241(g) of this chapter to develop procedures that TCBs will use for performing post-market surveillance. OET will publish a document on TCB post-market surveillance requirements, and this document will provide specific information such as the number and types of samples that a TCB must test.

(3) OET may request that a grantee of equipment certification submit a sample directly to the TCB that performed the original certification for evaluation. Any equipment samples requested by the Commission and tested by a TCB will be counted toward the minimum number of samples that the TCB must test.

(4) TCBs may request samples of equipment that they have certified directly from the grantee of certification in accordance with § 2.945 of this chapter.

(5) If during post market surveillance of a certified product, a TCB determines that a product fails to comply with the technical regulations for that product, the TCB shall immediately notify the grantee and the Commission in writing of its findings. The grantee shall provide a report to the TCB describing the actions taken to correct the situation, and the TCB shall provide a report of these actions to the Commission within thirty days.

(6) TCBs shall submit periodic reports to OET of their post-market surveillance activities and findings in the format and by the date specified by OET.

35. Section 2.964 is added to read as follows:

**§ 2.964 Pre-approval guidance procedure for Telecommunication Certification Bodies.**

(a) The Commission will publish a “Pre-approval Guidance List” identifying the categories of equipment or types of testing for which Telecommunication Certification Bodies (TCBs) must request guidance from the Commission before approving equipment on the list.

(b) TCBs shall use the following procedure for approving equipment on the Commission’s pre-approval guidance list.

(1) A TCB shall perform an initial review of the application and determine the issues that require guidance from the Commission. The TCB shall electronically submit the relevant exhibits to the Commission along with a specific description of the pertinent issues.

(2) The TCB shall complete the review of the application in accordance with the Commission’s guidance.

(3) The Commission may request and test a sample of the equipment before the application can be granted.

(4) The TCB shall electronically submit the application and all exhibits to the Commission along with a request to grant the application.

(5) The Commission will give its concurrence for the TCB to grant the application if it determines that the equipment complies with the rules. The Commission will advise the TCB if additional information or equipment testing is required, or if the equipment cannot be certified because it does not comply with the Commission’s rules.

36. Section 2.1033 is amended by revising paragraph (c) and adding new paragraphs (b)(14) and (c) (21) to read as follows:

**§ 2.1033 Application for certification.**

\* \* \* \* \*

(b) \* \* \*

(14) Contain at least one drawing or photograph showing the test set-up for each of the required types of tests applicable to the device for which certification is requested. These drawings or photographs must show enough detail to confirm other information contained in the test report. Any photographs used must be focused originals without glare or dark spots and must clearly show the test configuration used.

(c) Applications for equipment other than that operating under parts 15, 11 and 18 of the rules shall be accompanied by a technical report containing the following information:

\* \* \* \* \*

(21) Contain at least one drawing or photograph showing the test set-up for each of the required types of tests applicable to the device for which certification is requested. These drawings or photographs must show enough detail to confirm other information contained in the test report. Any photographs used must be focused originals without glare or dark spots and must clearly show the test configuration used.

\* \* \* \* \*

37. Section 2.1043 is amended by revising paragraphs (a), (b), (c), and (f) to read as follows:

**§ 2.1043 Changes in certificated equipment.**

(a) Except as provided in paragraph (b)(3) of this section, changes to the basic frequency determining and stabilizing circuitry (including clock or data rates), frequency multiplication stages, basic modulator circuit or maximum power or field strength ratings shall not be performed without application for and authorization of a new grant of certification. Variations in electrical or mechanical construction, other than these indicated items, are permitted provided the variations either do not affect the characteristics required to be reported to the Commission or the variations are made in compliance with the other provisions of this section. Changes to the software installed in a transmitter that do not affect the radio frequency emissions do not require any additional filings and may be made by parties other than the holder of the grant of certification.

(b) Three classes of permissive changes may be made in certificated equipment without requiring a new application for and grant of certification. None of the classes of changes shall result in a change in identification.

(1) A Class I permissive change includes those modifications in the equipment which do not degrade the characteristics reported by the manufacturer and accepted by the Commission when certification is granted. No filing is required for a Class I permissive change.

(2) A Class II permissive change includes those modifications which degrade the performance characteristics as reported to the Commission at the time of the initial certification. Such degraded performance must still meet the minimum requirements of the applicable rules. When a Class II permissive change is made by the grantee, the grantee shall provide complete information and the results

of tests of the characteristics affected by such change. The modified equipment shall not be marketed under the existing grant of certification prior to acknowledgement that the change is acceptable.

(3) A Class III permissive change includes modifications to the software of a software defined radio transmitter that change the frequency range, modulation type or maximum output power (either radiated or conducted) outside the parameters previously approved, or that change the circumstances under which the transmitter operates in accordance with Commission rules. When a Class III permissive change is made, the grantee shall provide a description of the changes and test results showing that the equipment complies with the applicable rules with the new software loaded, including compliance with the applicable RF exposure requirements. The modified software shall not be loaded into the equipment, and the equipment shall not be marketed with the modified software under the existing grant of certification, prior to acknowledgement that the change is acceptable. Class III changes are permitted only for equipment in which no Class II changes have been made from the originally approved device.

Note to paragraph (b)(3): Any software change that degrades spurious and out-of-band emissions previously reported at the time of initial certification would be considered a change in frequency or modulation and would require a Class III permissive change or new equipment authorization application.

(4) Class I and Class II permissive changes may only be made by the holder of the grant of certification, except as specified below.

(c) A grantee desiring to make a change other than a permissive change shall file a new application for certification accompanied by the required information as specified in this part and shall not market the modified device until the grant of certification has been issued. The grantee shall attach a description of the change(s) to be made and a statement indicating whether the change(s) will be made in all units (including previous production) or will be made only in those units produced after the change is authorized.

\* \* \* \* \*

(f) For equipment other than that operating under parts 15 or 18, when a Class II permissive change is made by other than the grantee of certification, the information and data specified in paragraph (b)(2) of this section shall be supplied by the person making the change. The modified equipment shall not be operated under an authorization prior to acknowledgement that the change is acceptable.

\* \* \* \* \*

38. Section 2.1073 is amended by revising paragraph (b) to read as follows:

**§ 2.1073 Responsibilities.**

\* \* \* \* \*

(b) The responsible party, if different from the manufacturer, may upon receiving a written statement from the manufacturer that the equipment complies with the appropriate technical standards, relies on the manufacturer or independent testing agency to determine compliance. However, the test records required by § 2.1075 shall be in the English language and shall be made available to the Commission upon a reasonable request in accordance with the provisions of § 2.945.

\* \* \* \* \*

39. Section 2.1075 is amended by revising paragraph (c) to read as follows:

**§ 2.1075 Retention of records.**

\* \* \* \* \*

(c) The records listed in paragraphs (a) and (b) of this section shall be retained for two years after the manufacture or assembly, as appropriate, of said equipment has been permanently discontinued, or until the conclusion of an investigation or a proceeding if the responsible party is officially notified that an investigation or any other administrative proceeding involving the equipment has been instituted. Requests for the records described in this section and for sample units also are covered under the provisions of § 2.945.

40. Section 2.1076 is removed.

**§ 2.1076 FCC inspection and submission of equipment for testing.**

[Removed]

**PART 15—RADIO FREQUENCY DEVICES**

41. The authority citation for Part 15 continues to read as follows:

**Authority:** 47 U.S.C. 154, 302a, 303, 304, 307, 336, 544a, and 549.

42. Section 15.31 is amended by revising paragraph (a)(3) and adding a new paragraph (a)(4) to read as follows:

**§ 15.31 Measurement standards.**

(a) \* \* \*

(3) Other intentional radiators are to be measured for compliance using the following procedure: ANSI C63.10-2013: “Procedures for Compliance Testing of Unlicensed Wireless Devices” (incorporated by reference, see § 15.38). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(4) Unintentional radiators are to be measured for compliance using the following procedure excluding sections 4.5.2, 6.2.12, 8.2.2, 9 and 14: ANSI C63.4-2014: “Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz” (incorporated by reference, see § 15.38). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

\* \* \* \* \*

43. Section 15.38 is amended by revising paragraph (b)(1) and adding a new paragraph (b)(4) to read as follows:

**§ 15.38 Incorporation by reference.**

\* \* \* \* \*

(b) \* \* \*

(1) ANSI C63.4-2014: “Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz,” IBR approved for § 15.31 except sections 4.5.2, 4.6, 6.2.12, 8.2.2, 9 and 14.

\* \* \* \* \*

(4) ANSI C63.10-2013, “Procedures for Compliance Testing of Unlicensed Wireless Devices,” IBR approved for § 15.31.

\* \* \* \* \*

44. Section 15.109 is amended by removing paragraph (g)(4).

**§ 15.109 Radiated emission limits.**

\* \* \* \* \*

(g) \* \* \*

(4) [Removed]

\* \* \* \* \*

**PART 68—CONNECTION OF TERMINAL EQUIPMENT TO THE TELEPHONE NETWORK**

45. The authority citation for Part 68 continues to read as follows:

**Authority:** Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082; (47 U.S.C. 154, 155, 303).

46. Section 68.160 is amended by revising paragraphs (a), (b) and (c)(1) to read as follows:

**§ 68.160 Designation of Telecommunication Certification Bodies (TCBs).**

(a) The Commission may recognize designated Telecommunication Certification Bodies (TCBs) which have been designated according to the requirements of paragraphs (b) or (c) of this section to certify equipment as required under this part. Certification of equipment by a TCB shall be based on an application with all the information specified in this part. The TCB shall process the application to determine compliance with the Commission's requirements and shall issue a written grant of equipment authorization. The grant shall identify the approving TCB and the Commission as the issuing authority.

(b) In the United States, TCBs shall be accredited and designated by the National Institute of Standards and Technology (NIST) under its National Voluntary Conformity Assessment Evaluation (NVCASE) program, or other recognized programs based on ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services.”, to comply with the Commission's qualification criteria for TCBs. NIST may, in accordance with its procedures, allow other appropriately qualified accrediting bodies to accredit TCBs. TCBs shall comply with the requirements in §68.162 of this part.

(c) \* \* \*

(1) The organization accrediting the prospective telecommunication certification body shall be capable of meeting the requirements and conditions of ISO/IEC 17011:2004, “Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies.”

\* \* \* \* \*



47. Section 68.162 is amended by revising paragraphs (a), (b)(1), (c)(1), (c)(3), (c)(4), (d), (e), (f)(2), (g)(2), and (h) to read as follows:

**§ 68.162 Requirements for Telecommunication Certification Bodies.**

(a) Telecommunication certification bodies (TCBs) designated by the National Institute of Standards and Technology (NIST), or designated by another authority pursuant to an effective bilateral or multilateral mutual recognition agreement or arrangement to which the United States is a party, shall comply with the following requirements.

(b) *Certification methodology.* (1) The certification system shall be based on type testing as identified in ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services.”

\* \* \* \* \*

(c) *Criteria for designation.* (1) To be designated as a TCB under this section, an entity shall, by means of accreditation, meet all the appropriate specifications in ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services,” for the scope of equipment it will certify. The accreditation shall specify the group of equipment to be certified and the applicable regulations for product evaluation.

(2) \* \* \*

(3) The TCB shall have the technical expertise and capability to test the equipment it will certify and shall also be accredited in accordance with ISO/IEC 17025:2005, “General requirements for the competence of calibration and testing laboratories,” to demonstrate it is competent to perform such tests.

(4) The TCB shall demonstrate an ability to recognize situations where interpretations of the regulations or test procedures may be necessary. The appropriate key certification and laboratory personnel shall demonstrate knowledge of how to obtain current and correct technical regulation interpretations. The competence of the telecommunication certification body shall be demonstrated by assessment. The general competence, efficiency, experience, familiarity with technical regulations and products included in those technical regulations, as well as compliance with applicable parts of the ISO/IEC 17025:2005, “General requirements for the competence of calibration and testing laboratories,” and ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services,” shall be taken into consideration.

\* \* \* \* \*

(d) *External resources.* (1) In accordance with the provisions of ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services,” the evaluation of a product, or a portion thereof, may be performed by bodies that meet the applicable requirements of ISO/IEC 17025:2005, “General requirements for the competence of calibration and testing laboratories,” and ISO/IEC 17065, in accordance with the applicable provisions of ISO/IEC 17065 for external resources (outsourcing) and other relevant standards. Evaluation is the selection of applicable requirements and the determination that those requirements are met. Evaluation may be performed by using internal TCB resources or external (outsourced) resources.

(2) A recognized TCB shall not outsource review and certification decision activities.

(3) When external resources are used to provide the evaluation function, including the testing of equipment subject to certification, the TCB shall be responsible for the evaluation and shall maintain appropriate oversight of the external resources used to ensure reliability of the evaluation. Such oversight shall include periodic audits of products that have been tested and other activities as required in ISO/IEC 17065:2012, "Conformity assessment - Requirements for bodies certifying products, processes and services," when a certification body uses external resources for evaluation.

(e) *Recognition of TCBs.* (1)(i) The Commission will recognize as a TCB any organization that meets the qualification criteria and is accredited and designated by NIST or its recognized accreditor as provided in § 68.160(b) of this part.

(ii) The Commission will recognize as a TCB any organization outside the United States that meets the qualification criteria and is designated pursuant to an effective bilateral or multilateral Mutual Recognition Agreement (MRA) as provided in § 68.160c) of this part.

(2) The Commission will withdraw the recognition of a TCB if the TCB's accreditation or designation by NIST or its recognized accreditor is withdrawn, if the Commission determines there is just cause for withdrawing the recognition, or if the TCB requests that it no longer hold the recognition. The Commission will limit the scope of equipment that can be certified by a TCB if its accreditor limits the scope of its accreditation or if the Commission determines there is good cause to do so. The Commission will notify a TCB in writing of its intention to withdraw or limit the scope of the TCB's recognition and provide a TCB with at least 60 days notice of its intention to withdraw the recognition and provide the TCB with an opportunity to respond. In the case of a TCB designated and recognized pursuant to an effective bilateral or multilateral MRA, the Commission shall consult with the Office of United States Trade Representative (USTR), as necessary, concerning any disputes arising under an MRA for compliance with the Telecommunications Trade Act of 1988 (Section 1371-1382 of the Omnibus Trade and Competitiveness Act of 1988).

(3) The Commission may request that a TCB's Designating Authority or accreditation body investigate and take appropriate corrective actions as required, when it has concerns or evidence that the TCB is not certifying equipment in accordance with Commission rules or ACTA requirements, and the Commission may initiate action to limit or withdraw the recognition of the TCB.

(4) If the Commission withdraws the recognition of a TCB, all certifications issued by that TCB will remain valid unless specifically revoked by the Commission.

(5) A list of recognized TCBs will be published by the Commission.

(f) \* \* \*

(1) \* \* \*

(2) A TCB shall accept test data from any source, subject to the requirements in ISO/IEC 17065:2012, "Conformity assessment - Requirements for bodies certifying products, processes and services," and shall not unnecessarily repeat tests.

\* \* \* \* \*

(g) \* \* \*

(1) \* \* \*

(2) In accordance with ISO/IEC 17065:2012, “Conformity assessment - Requirements for bodies certifying products, processes and services,” a TCB is required to conduct appropriate surveillance activities. These activities shall be based on type testing a few samples of the total number of product types which the certification body has certified. Other types of surveillance activities of a product that has been certified are permitted, provided they are no more onerous than testing type. The Commission may at any time request a list of products certified by the certification body and may request and receive copies of product evaluation reports. The Commission may also request that a TCB perform post-market surveillance, under Commission guidelines, of a specific product it has certified.

(3) The Commission may request that a grantee of equipment certification submit a sample directly to the TCB that performed the original certification for evaluation. Any equipment samples requested by the Commission and tested by a TCB will be counted toward the minimum number of samples that the TCB must test.

(4) A TCBs may request samples of equipment that they have certified directly from the grantee of certification.

(5) If during, post-market surveillance of a certified product, a certification body determines that a product fails to comply with the applicable technical regulations, the certification body shall immediately notify the grantee and the Commission. The TCB shall provide a follow-up report to the Commission within thirty days of reporting the non-compliance by the grantee to describe the resolution or plan to resolve the situation.

(6) Where concerns arise, the TCB shall provide a copy of the application file to the Commission within 30 calendar days of a request for the file made by the Commission to the TCB and the manufacturer. Where appropriate, the file should be accompanied by a request for confidentiality for any material that may qualify for confidential treatment under the Commission's Rules. If the application file is not provided within 30 calendar days, a statement shall be provided to the Commission as to why it cannot be provided.

(h) In the case of a dispute with respect to designation or recognition of a TCB and the testing or certification of products by a TCB, the Commission will be the final arbiter. Manufacturers and recognized TCBs will be afforded at least 60 days to comment before a decision is reached. In the case of a TCB designated or recognized, or a product certified pursuant to an effective bilateral or multilateral mutual recognition agreement or arrangement (MRA) to which the United States is a party, the Commission may limit or withdraw its recognition of a TCB designated by an MRA party and revoke the certification of products using testing or certification provided by such a TCB. The Commission shall consult with the Office of the United States Trade Representative (USTR), as necessary, concerning any disputes arising under an MRA for compliance with under the Telecommunications Trade Act of 1988.

## APPENDIX C

## Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>0</sup> an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Notice of Proposed Rulemaking (Authorization of Radiofrequency Equipment NPRM)* in ET Docket No. 13-44.<sup>0</sup> The Commission sought written public comment on the proposals in the *NPRM*, including comment on the IRFA. Those comments are discussed below. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.<sup>0</sup>

**A. Need for, and Objective of, the Report and Order.**

2. In this Report and Order, we take actions to update the Commission's radiofrequency (RF) equipment authorization program to build on the success realized by our use of Commission-recognized Telecommunications Certification Bodies (TCBs). The rules we are adopting will facilitate the continued rapid introduction of new and innovative products to the market while maintaining our ability to ensure that these products do not cause harmful interference with each other or with other communications devices and services.

Specifically, in this Report and Order we:

- Discontinue FCC processing of any applications for equipment Certification of RF equipment;
- Permit TCBs to process and grant all applications for Certification;
- Codify a pre-grant approval procedure that TCBs must currently follow when certifying equipment based on new technology that requires consultation with the FCC;
- Clarify a TCB's responsibilities in performing post-market surveillance of products it has approved;
- Specify steps for addressing instances of deficient TCB performance, including appropriate sanctions for deficiencies that do not warrant rescinding a TCB's authority to issue a grant of Certification;
- Modify the rules to reference current standards used to accredit TCBs that approve RF equipment under Part 2 of the Commission's rules and terminal equipment under Part 68 of the Commission's rules;
- Require accreditation of all laboratories that test equipment subject to any of the certification procedures under Part 2 of the Commission's rules and codify a procedure through which the Commission currently recognizes new laboratory accreditation bodies;
- Update references to industry measurement procedures in the Commission's rules; and

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<sup>0</sup> 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), and the Small Business Jobs Act of 2010, Public Law No. 111-240, 124 Stat. 2504 (2010).

<sup>0</sup> See *Amendment of Parts 0, 1, 2, and 15 of the Commission's Rules to regarding Authorization of Radiofrequency Equipment and Amendment of Part 68 regarding Approval of Terminal Equipment by Telecommunications Certification Bodies, Notice of Proposed Rulemaking*, ET Docket No. 13-44, RM 11673, 28 FCC Rcd 1606 (2013) (NPRM).

<sup>0</sup> See 5 U.S.C. § 604.

Provide greater flexibility under the Office of Engineering and Technology's (OET) existing delegated authority to enable it to address minor technical issues that may be raised when updating to the latest versions of industry standards that are referenced in Parts 2, 5, 15, and 18 of the Commission's rules.

**B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA.**

3. One commenter addressed the conclusions that were reached in the Initial Regulatory Flexibility Analysis (IRFA) regarding the economic impact that the proposed rules would have on small entities. That commenter, dB Technology, asserted that the IRFA failed to account for the negative effects of adopting the proposal to require that all laboratories that perform certification testing be accredited.<sup>0</sup> Specifically, dB Technology stated that the "...cost overhead associated with 'accreditation' which has a much more significant impact on smaller test labs ... may result in some small test labs no longer being able to offer services to local small entities." As a result, dB Technology concludes that there could be a "...reduction in the number of competing test labs and increased costs for manufacturers."<sup>0</sup>

4. In the Report and Order in this proceeding, the Commission adopts the requirement that all laboratories that perform Certification testing be accredited. It did so on the basis that requiring testing laboratory accreditation is an important adjunct to our decision to allow TCBs to certify all RF equipment, and because the requirement will provide a higher degree of confidence that equipment testing done in support of Certification applications is conducted in accordance with the applicable standards. To the extent that dB technologies is suggesting that we take an alternate approach, such as continuing to allow for unaccredited laboratories, we have considered but rejected that path on the basis that it would not allow us to accomplish the objectives of this proceeding. It is extremely important that equipment be properly evaluated prior to being released into the marketplace (where it may be difficult or impossible to retrieve). Not requiring accreditation, or only applying such a requirement to certain types of laboratories, would present unacceptable risks to the integrity and success of our equipment authorization program. It would also increase the potential for the imposition of extraordinary costs (both costs associated with the identification and recall of noncompliant products by manufacturers, and costs associated with interference by noncompliant devices that could affect a larger group of users). For these reasons, we are adopting the accreditation rule based on the proposals in the Notice and its accompanying IRFA.

**C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration.**

5. Pursuant to the Small Business Jobs Act of 2010, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments. The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

**D. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply.**

6. The RFA directs agencies to provide a description of and, where feasible, an estimate of

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<sup>0</sup> See dB Technology "small business impact" comments filed March 22, 2013. dB Technology refers to itself as "an independent EMC/Radio Test Site located in the United Kingdom," whose test facilities are "'listed' with the FCC but not 'accredited.'"

<sup>0</sup> dB Technology also suggested that the IRFA should have considered the "positive impact" of relaxing other Commission equipment authorization procedures. However, the procedures it mentioned were not the direct subjects of this proceeding and these comments will not be discussed further.

the number of small entities that may be affected by the proposed rules, if adopted.<sup>0</sup> The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.<sup>0</sup> 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.<sup>0</sup>

**7. Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing.** The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. 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."<sup>0</sup> The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees. According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for part or all of the entire year. Of this total, 912 had less than 500 employees and 17 had more than 1000 employees.<sup>0</sup> Thus, under that size standard, the majority of firms can be considered small.

#### **E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities.**

8. Our rules require that equipment be authorized in accordance with one of three procedures specified in Subpart J of Part 2 of the rules described below (with certain limited exceptions).<sup>0</sup> These requirements not only minimize the potential for harmful interference, but also ensure that the equipment complies with our rules that address other policy objectives – such as RF human exposure limits and hearing aid compatibility (HAC) with wireless handsets. The specific

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<sup>0</sup> *Id.* at § 603(b)(3).

<sup>0</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, 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." 5 U.S.C. § 601(3).

<sup>0</sup> Small Business Act, 15 U.S.C. § 632 (1996).

<sup>0</sup> The NAICS Code for this service 334220. See 13 C.F.R. 121/201. See also [http://factfinder.census.gov/servlet/IBQTable?\\_bm=y&-fds\\_name=EC0700A1&-geo\\_id=&-skip=300&-ds\\_name=EC0731SG2&-lang=en](http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-skip=300&-ds_name=EC0731SG2&-lang=en)

<sup>0</sup> See [http://factfinder.census.gov/servlet/IBQTable?\\_bm=y&-geo\\_id=&-fds\\_name=EC0700A1&-skip=4500&-ds\\_name=EC0731SG3&-lang=en](http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-skip=4500&-ds_name=EC0731SG3&-lang=en)

<sup>0</sup> See 47 C.F.R. Part 2, Subpart J, § 2.901, *et seq.* Some devices are exempt from the equipment authorization requirements, such as unlicensed digital devices used exclusively in transportation vehicles, utility or industrial plants, test equipment, appliances and medical devices. See 47 C.F.R. § 15.103. In addition, most radio receivers that tune only outside the frequency range of 30-960 MHz are exempt from equipment authorization requirements. See 47 C.F.R. § 15.101(b). Operation of these exempt digital devices and radio receivers is subject to the condition that the devices may not cause harmful interference to authorized services. See 47 C.F.R. § 15.5(b). Additionally, some devices are exempt from equipment authorization requirements by statute, such as equipment intended solely for export or marketed exclusively for use by the Federal Government. See 47 U.S.C. § 302a(c) and 47 C.F.R. § 2.807.

provisions of the three procedures apply to various types of devices based on their relative likelihood of harmful interference and the significance of the effects of such interference from the particular device at issue.

**Certification**, the most rigorous process for devices with the greatest potential to cause harmful interference, is an equipment authorization issued by the Commission or grant of Certification by a recognized TCB based on an application and test data submitted by the responsible party (*e.g.*, the manufacturer or importer).<sup>0</sup> The testing is done by a testing laboratory listed by the Commission as approved for such work and the Commission or a TCB examines the test procedures and data to determine whether the testing followed appropriate protocols and the data demonstrates technical and operational compliance with all pertinent rules. Technical parameters and other descriptive information for all certified equipment submitted in an application for Certification are published in a Commission-maintained public database, regardless of whether it is approved by the Commission or a TCB.<sup>0</sup>

**Declaration of Conformity (DoC)** is a procedure that requires the party responsible for compliance to use an accredited testing laboratory that follows established measurement protocols to ensure that the equipment complies with the appropriate technical standards.<sup>0</sup> The responsible party is not required to file an equipment authorization application with the Commission or a TCB, and equipment authorized under the DoC procedure is not listed in any Commission database. However, the responsible party must provide a test report and other information demonstrating compliance with the rules upon request by the Commission.

**Verification** is a procedure that requires the party responsible for compliance to rely on measurements that it or another party makes on its behalf to ensure that the equipment complies with the appropriate technical standards.<sup>0</sup> The responsible party is not required to use an accredited testing laboratory. It is not required to file an application with the Commission or a TCB, and equipment authorized under the verification procedure is not listed in any Commission database. However, the responsible party must provide a test report and other information demonstrating compliance with the rules upon request by the Commission.

9. In the *Notice of Proposed Rulemaking* (“*Notice*”) in this proceeding, the Commission proposed certain changes to ensure its Part 2 equipment authorization processes continue to operate efficiently and effectively.<sup>0</sup> Specifically, the Commission proposed to clarify the obligations of TCBs and to strengthen the Commission’s oversight of the TCB’s. The Commission also proposed to require accreditation for all labs performing equipment authorization compliance tests. The Commission also proposed adopting updates to the measurement procedures used to determine RF equipment compliance.

10. We adopt our proposals specifying how applicants will file with TCBs and how TCBs will file with the Commission, and we will require that the information provided to the Commission shall be submitted electronically through the Commission’s EAS.

11. We will stop accepting applications for the Commission to issue the grant of Certification

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<sup>0</sup> See 47 C.F.R. § 2.907.

<sup>0</sup> See <http://www.fcc.gov/eas/>.

<sup>0</sup> See 47 C.F.R. § 2.906. The party responsible for compliance is defined in 47 C.F.R. § 2.909.

<sup>0</sup> See 47 C.F.R. §§ 2.909(b) and 2.953.

<sup>0</sup> See *Amendment of Parts 0, 1, 2, and 15 of the Commission’s Rules regarding Authorization of Radiofrequency Equipment and Amendment of Part 68 regarding Approval of Terminal Equipment by Telecommunications Certification Bodies, Notice of Proposed Rulemaking*, ET Docket No. 13-44, 28 FCC Rcd 1606 (2013) (*Notice*).

as of the effective date of the Report and Order and will modify Section 1.1103 of the rules to remove the equipment authorization services sections related to Certification as all of the processes under the Certification section will no longer be handled by the Commission, and no fee will be charged by the Commission when a TCB issues a grant of Certification. Applications received prior to the effective date will be reviewed following the current review procedures and approved if compliant with all requirements. Finally, we also adopt the proposed TCB process changes and amend the various sections of Part 2 that required updating to reflect the TCB role in the Certification process, as modified herein.

**F. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered**

12. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (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 small entities; 3) the use of performance, rather than design, standards; and 4) an exemption from coverage of the rule, or any part thereof, for small entities.<sup>0</sup>

13. We will adopt the proposed modifications to the administrative requirements for test laboratories and TCBs that we believe will make the equipment authorization program more efficient and effective, thus benefiting small entities. Specifically, TCBs will approve all equipment, including equipment that TCBs may not currently approve because it incorporates new technology or requires measurements for which the procedures are not yet clearly defined. To more efficiently implement this change, we will also integrate a new procedure into our equipment authorization system that will enable TCBs to obtain guidance from the Commission on testing or other certification issues. We expect that these changes will reduce the time required for manufacturers to obtain equipment approval.

14. We will also adopt our proposals to require accreditation of test laboratories that perform certification testing and establish additional measures to address TCB performance in order to ensure the continuing quality of the TCB program. This will benefit equipment manufacturers by ensuring that all TCBs operate in accordance with the Commission's rules, thus providing a clear path to market and a level playing field for all manufacturers, both large and small.

**Report to Congress:** The Commission will send a copy of the Report and Order, including this FRFA, in a report to Congress pursuant to the Congressional Review Act.<sup>0</sup> In addition, the Commission will send a copy of the Report and Order, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register.

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<sup>0</sup> 5 U.S.C. § 603(c).

<sup>0</sup> See 5 U.S.C. § 801(a)(1)(A).



**STATEMENT OF  
COMMISSIONER MICHAEL O'RIELLY  
APPROVING IN PART AND DISSENTING IN PART**

*Re: Amendment of Parts 0, 1, 2, and 15 of the Commission's Rules regarding Authorization of Radiofrequency Equipment; Amendment of Part 68 regarding Approval of Terminal Equipment by Telecommunications Certification Bodies, ET Docket No. 13-44, RM-11652*

Although I vote to approve the vast majority of this order, I cannot support the delegation of authority to the Office of Engineering and Technology (OET) to modify certain rules to incorporate updated industry standards.<sup>0</sup> Pursuant to this delegation, the bureau will be permitted to conduct its own rulemaking proceeding to enact rules that will substantively affect Commission regulatees. In fact, the Commission will only vote on these updates if there is convincing evidence that the changes to the standard would raise "major compliance issues." I have utmost confidence in OET, but I cannot support such a delegation or the precedent it sets.

The order states that, by allowing the bureau to conduct its own proceeding, it will allow the Commission "to better keep pace with industry standards" than if the Commission had to conduct a full rulemaking. This argument just does not hold up to analysis or reason. Either way, the proceeding will have a notice, comment period, and involve drafting time. If the process to bring an item to the floor is that burdensome and time consuming, that is clearly an issue for the Chairman's FCC reform project, but not a rationale for depriving Commissioners of the right to vote. As we are led to believe that these updates are not controversial, the Commission should be able to vote expeditiously. Generally, I always vote as quickly as possible. In fact, if it weren't for this questionable delegation, I would have voted this item a while ago.

While I recognize that some may assert that similar delegations have been granted in the past, that doesn't mean that it is correct or good process. Others may argue that this item will just result in a bureau updating standards, but the questionable delegation of Commission authority to bureaus is becoming a norm. In fact, a declaratory ruling clarifying controversial data roaming rules and the wireless competition report, which is normally voted on by the Commission, were just released on delegated authority.

I cannot support language that allows a bureau to determine the bounds of its own delegated authority based on a subjective and vague standard, such as if the action does not "raise major compliance issues." Under this item, OET gets to decide what is meant by "major," and effectively acts as gatekeeper to what the Commissioners get to consider. Moreover, this language could easily serve as a model for future delegations. For example, could a future television standard, ATSC 3.0, be considered major? Or is that just updating a previous standard?

For these reasons, I must dissent to the portion of the order delegating authority to OET to update industry standards referenced in Commission rules.

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<sup>0</sup> This delegation affects Part 2, 5, 15, and 18 rules.