individual electric utilities that have comprehensive PCB programs in place should be exempt from the storage for reuse requirements. The final rule did not include a provision allowing the industry site-specific or nationwide waivers or exemptions from the storage for reuse requirements, because the commenters did not supply any data showing that the equipment stored for reuse at the commenters' facilities is maintained in such a way that it remains intact and non-leaking and therefore does not present a risk to health or the environment.

2. *Litigation background.* Several entities representing the electric utility industry (Central and South West Services, Inc., Entergy Services, Inc., Mississippi Power Company, and Utility Solid Waste Activities Group, collectively referred to hereinafter as ''USWAG'') petitioned for review of § 761.35 in the U.S. Court of Appeals for the Fifth Circuit (Ref. 7). USWAG asked the Court to vacate § 761.35 on the grounds that this section was not supported by substantial evidence in the record as a whole, and that, after soliciting comment whether to allow nationwide waivers of the storage for reuse rules, EPA failed to respond to comments arguing for such a waiver for the electric utility industry (Ref. 8, pp. 28–51).

The Court rejected USWAG's first argument, holding that the proper standard of review for challenges to EPA rules restricting or prohibiting the use of PCBs is whether the rules are arbitrary and capricious, a more deferential test than inquiring whether the rules are supported by substantial evidence. The Court further found that EPA's decision to strengthen the storage for reuse rules to prevent practices that pose an unreasonable risk to health and the environment was not arbitrary and capricious. On USWAG's second argument, the Court agreed that EPA had not adequately responded to the electric utility industry's comments requesting a waiver. Rather than vacating § 761.35, the Court remanded the rule to EPA to provide a reasoned statement of why it did not grant a national variance for the electric utility industry. The Court noted, ''EPA may well be able to justify its decision to refuse to promulgate a national variance for the electric utilities and it would be disruptive to vacate a rule that applies to other members of the regulated community.''

3. *EPA's response to industry's comments.* EPA has prepared a Supplemental Response to Comments Document on storage of PCB Articles for reuse that addresses the electric utility industry's comments requesting a waiver from § 761.35. That document explains why based both on the information provided by commenters and other information available to the Agency, that a generic waiver from the storage for reuse requirements for the electric utility industry was not warranted. Based on the available information, EPA believes that additional restrictions on storage for reuse are necessary to prevent an unreasonable risk to human health and the environment.

B. What is the Agency's Authority for Taking this Action?

The Supplemental Response to Comments Document that EPA is adding to the rulemaking record provides a reasoned statement of why EPA did not grant a national variance from the storage for reuse requirements at 40 CFR 761.35 for the electric utility industry, as directed by the U.S. Court of Appeals for the Fifth Circuit in *Central and South West Services, et al,* v. *EPA*, 220 F.3d 683 (5th Cir. 2000) (Ref.2).

III. References and Other Materials Added to the Rulemaking Record

1. U. S. Environmental Protection Agency (USEPA), OPPT. Disposal of Polychlorinated Biphenyls (PCBs); final rule. **Federal Register** (63 FR 35384, June 29, 1998) (FRL–5726–1).

2. U.S. Court of Appeals for the Fifth Circuit. *Central and South West Services, et al,* v. *United States Environmental Protection Agency*. Case No. 98–60495, August 15, 2000.

3. USEPA, OPPT, National Program Chemicals Division (NPCD). Supplemental Response to Comment Document on the Proposed Rule—Disposal of Polychlorinated Biphenyls. January 2004.

4. USEPA, OPPT. Disposal of Polychlorinated Biphenyls; proposed rule. **Federal Register** (59 FR 62788, December 6, 1994) (FRL–4167–1).

5. USEPA, OPPT. Disposal of Polychlorinated Biphenyls (PCBs); extension of comment period and notice of informal hearing. **Federal Register** (60 FR 17510, April 6, 1995) (FRL–4948–1).

6. USEPA, OPPT, NPCD. Response to Comment Document on the Proposed Rule—Disposal of Polychlorinated Biphenyls. May 1998.

7. Central and South West Services, Inc., Entergy Services, Inc., Mississippi Power Company, and the Utility Solid Waste Activities Group (USWAG). Petition for Review (5th Cir., August 7, 1998).

8. USWAG. Brief of Petitioners Central and South West Services, Inc., Entergy Services, Inc., Mississippi Power Company, and the Utility Solid Waste Activities Group (USWAG) (Case No. 98–60495, 5th Cir., April 27, 1999).

9. USEPA, Region VI, Dallas, TX. Complaint and Notice of Opportunity for Hearing, TSCA Docket No. VI-533C. September 27, 1991.

10. USEPA, Region VI, Dallas, TX. Consent Agreement and Consent Order, TSCA Docket No. VI-533C. June 11, 1992.

11. USEPA, Region VI, Dallas, TX. Complaint and Notice of Opportunity for Hearing, TSCA Docket No. VI-676C(P). December 31, 1996.

12. USEPA, Region VI, Dallas, TX. Consent Agreement and Consent Order, TSCA Docket No. VI-676C(P). June 30, 1997.

13. USEPA, Office of Toxic Substances (OTS). Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Use in Electrical Equipment; final rule. **Federal Register** (47 FR 37342, August 25, 1982).

14. USEPA. Information Collection Activities OMB Responses; notice. **Federal Register** (63 FR 57123, October 26, 1998) (FRL–6180–2).

List of Subjects in 40 CFR Part 761

Environmental protection, Hazardous substances, Polychlorinated biphenyls.

Dated: August 26, 2004.

Susan B. Hazen,

Acting Assistant Administrator, Office of Prevention, Pesticides and Toxic Substances.

[FR Doc. 04–20222 Filed 9–3–04; 8:45 am]

BILLING CODE 6560–50–S

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 2 and 15

[ET Docket 03–201; FCC 04–165]

Unlicensed Devices and Equipment Approval

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: This document updates several technical rules for unlicensed radiofrequency devices of the Commission's rules. These rule changes will allow device manufacturers to develop expanded applications for unlicensed devices and will allow unlicensed device operators, including wireless Internet service providers'

greater flexibility to modify or substitute parts as long as the overall system operation is unchanged. We take these actions as part of our ongoing process of updating our rules to promote more efficient sharing of spectrum used by unlicensed devices and remove unnecessary regulations that inhibit such sharing.

DATES: Effective October 7, 2004, except for §§ 2.913(c), 2.926(c), 2.929(c) and 2.929(d) which contains information collection requirements that are not effective until approved by the Office of Management and Budget. The FCC will publish a document in the **Federal Register** announcing the effective date for those sections.

ADDRESSES: In addition to filing comments with the Office of the Secretary, 445 12th Street, SW., Washington, DC 20554, a copy of any comments on the Paperwork Reduction Act information collection requirements contained herein should be submitted to Leslie Smith, Federal Communications Commission, Room 1–A804, 445 12th Street, SW., Washington, DC 20554, or via the Internet to *Leslie.Smith@fcc.gov.*

FOR FURTHER INFORMATION CONTACT: Neal McNeil, Office of Engineering and Technology, (202) 418–2408, TTY (202) 418–2989, e-mail: *Neal.McNeil@fcc.gov.*

For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, contact Leslie Smith at 202–418–0217, or via the Internet at *Leslie.Smith@fcc.gov.*

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order, ET Docket 03–201, FCC 04–165, adopted July 8, 2004 and released July 12, 2004. The full text of this document is available for inspection and copying during regular business hours in the FCC Reference Center (Room CY–A257), 445 12th Street, SW., Washington, DC 20554. The complete text of this document also may be purchased from the Commission's duplication contractor, Best Copy and Printing, Inc., 445 12th Street, SW., Room CY–B402, Washington, DC 20554. The full text may also be downloaded at: *http://www.fcc.gov.* To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to *fcc504@fcc.gov* or call the FCC Consumer & Governmental Affairs Bureau at (202) 418–0531 (voice), (202) 418–7365 (TTY).

Paperwork Reduction Act of 1995 Analysis

The Report & Order contains modified information collection(s) requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public to comment on the information collection requirements contained in this R&O as required by the Paperwork Reduction Act of 1995 (PRA), Pub. L. 104–13. Public and agency comments are due November 8, 2004. In addition, the Commission notes that pursuant to the Small Business Paperwork Relief Act of 2002, Pub. L. 107–198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might ''further reduce the information collection burden for small business concerns with fewer than 25 employees.'' In this present document, we have assessed the effects of removing the paper filing provisions in §§ 2.913(c), 2.929(c) and 2.929(d) of the Commission's rules, and find that the changes will facilitate more efficient document filing and processing without placing additional burdens on small entities.

Summary of the Report and Order

Revisions to Part 15

Advanced Antenna Technologies

1. In the *Notice of Proposed Rulemaking,* (*NPRM*), 68 FR 68823, September 17, 2003, the Commission proposed to update § 15.247 of the rules to allow the use of more efficient antenna technologies with unlicensed devices. The regulations in effect at the time allowed only omnidirectional and directional antennas to be used with such devices. However, systems employing advanced antenna designs such as sectorized antennas and phased array adaptive antennas are now being used, or contemplated for use, as part of wide area network systems operating in the 2.4 GHz band. To date, the Commission has not generally authorized the operation of sectorized antennas by spread spectrum systems, but, by individual interpretation of its rules, we have allowed a few phased array systems to operate.

2. The Commission continues to believe that it is appropriate to revise § 15.247 to permit the use of advanced antenna systems in the 2.4 GHz band. The Commission is adopting our proposals with certain modifications based on the comments. First, The Commission is allowing advanced antenna systems, including sectorized and adaptive array systems, to operate with an aggregate transmit output power transmitted simultaneously on all beams of up to 8 dB above the limit for an individual beam.

3. Second, the Commission is adopting a requirement that the total EIRP on any beam may not exceed the EIRP limits for conventional point-to-point operation. The Commission is aware that during the course of normal operation it is possible that two beams may overlap while tracking associated mobile units. Because the effective radiated power along the path of overlap might exceed the power level permitted by a single beam, the Commission will require that the aggregate power transmitted simultaneously on overlapping beams be reduced to ensure that EIRP in the area of overlap does not exceed the limit for a single beam. Applications for equipment authorization must include the algorithm that will produce the maximum gain to ensure that the requirement will be met. For example, consider an antenna system that forms two separate beams both operating at the maximum permitted power. If the two beams were to overlap coverage area, then the power in each beam must be reduced in any proportion relative to the other in such a way that the total power in the overlap area does not exceed the maximum power allowed for one beam.

4. The Commission is not adopting a rule to restrict advanced antenna systems to 120° beamwidth. The Commission concludes that the EIRP limits, including the areas of overlap, will ensure that interference potential of the system is minimized, regardless of the beamwidth employed.

5. The rules we adopt herein are technologically neutral and will permit operation of various new and developing antenna technologies. Although the *NPRM* identified only sectorized and phased array systems as those that the Commission would consider under the revised rules, commenters have noted that other advanced antenna technologies are either under development or in use for various applications. Systems using technologies such as MIMO, space-time coding, and switched beam devices will be accommodated under the new rules.

6. The Commission is grandfathering existing advanced antenna systems that have already received an equipment authorization. These systems may continue to operate in accordance with the terms of the equipment authorization. New systems must comply with the rules adopted herein.

Replacement Antennas for Unlicensed Devices

7. Section 15.203 requires that intentional radiators be designed such that no antenna other than that supplied can be used with the device. The rules state that the device can be designed to

permit a broken antenna to be replaced by the user; however, the use of a standard antenna jack or electrical connector is prohibited. These rules are intended to prevent both intentional and unintentional circumvention of the part 15 emission limits by replacing a device's authorized antenna with an antenna having higher gain characteristics.

8. In order to support more flexible antenna requirements for unlicensed devices, the Commission proposed to allow that devices be authorized for use with multiple antennas. Although the Commission proposed to modify § 15.203 to implement the modifications, it believes that the changes are better suited for § 15.204. Accordingly, the Commission modifies § 15.204 to permit intentional radiators to be authorized with multiple antennas of similar in and out-of-band gain and radiation pattern. Compliance testing for the intentional radiator must be performed using the highest gain antenna that will be used with the device. The manufacturer must supply a list of other acceptable antennas in the literature delivered to the customer.

9. The Commission is not convinced, however, that the unique connector requirement should be eliminated. Thus, all replacement antennas authorized for use with an intentional radiator must incorporate a non-standard connector which uniquely couples with that intentional radiator. The Commission remains concerned that removing this requirement could make it easier for parties to attach unauthorized high gain antennas or linear amplifiers to unlicensed devices in violation of the rules. Of even greater importance, however, is the Commission's concern that removing this requirement might have the unintended consequence of allowing uninformed consumers to inadvertently attach an antenna which causes the device to emit at levels in excess of the limits for human exposure to radio emissions. For these reasons, the Commission will continue to require that unlicensed devices use non-standard antenna connectors as currently required in § 15.203.

10. The Commission will also remove the § 15.407(d) requirement that devices designed to operate in the 5.15 GH_z–5.25 GH_z U–NII band incorporate an integrated antenna. In light of the fact that manufacturers are designing equipment that is capable of operating across multiple unlicensed bands, the Commission concludes that it is impractical to maintain separate antenna requirements for each band in which a device my operate. Removal of this requirement will not present a significant interference risk because the modified § 15.204 rules will ensure that any replacement antenna used with a device will not cause emissions to exceed authorized levels. Furthermore, the requirement that U–NII band devices incorporate a non-standard connector which couples only to the transmitter with which it is authorized will provide assurance that unauthorized antennas will not be used with the devices.

Flexible Equipment Authorization for Radio Transmission Systems

11. Section 15.205 of the rules prohibits marketing of external radio frequency amplifiers, except as part of a complete transmission system consisting of an intentional radiator, external radio frequency amplifier and antenna. In the *NPRM*, the Commission proposed to allow marketing of separate radio frequency power amplifiers on a limited basis. The Commission proposed to restrict such marketing to amplifiers that are only capable of operation under the digitally modulated devices rules in § 15.247 and under the U–NII rules for the 5750–5850 MH_z band. These are the rules under which most unlicensed wireless broadband devices operate. Further, the Commission proposed to require that the parties responsible for such amplifiers obtain an equipment authorization (certification) and demonstrate that the device cannot operate with an output power of more than 1 Watt, the maximum power permitted under the rules. Consumers and businesses would then have the ability to obtain a separate amplifier if they find the device they have purchased has insufficient operating range to meet their needs.

12. The Commission adopted rules to allow external amplifiers to be marketed separately if they are designed in such a way that they can only be used with a specific system that is covered by an equipment authorization, such as through use of a unique connector or via an electronic handshake with a host device. The amplifiers must have a proprietary connection both into the amplifier and into the associated routers and access points with which they are FCC approved to work so that consumers with any other routers or access points cannot use them. The output power of such an amplifier must not exceed the maximum permitted output power of the system with which it is authorized. In addition, the Commission is requiring that the amplifiers will be sold with a notice that they are to be used only in conjunction with the routers and access points for which they have been approved. A description or listing of the devices with which the amplifier can be used must appear on the outside packaging as well as in the user manual for the amplifier. The amplifiers must not be used to circumvent regulations regarding output power. For example, an amplifier may not be used to increase the output power of a system that is otherwise limited to 125 mW to a higher power. The party responsible for ensuring compliance with Commission regulations shall illustrate, during the equipment authorization process, the method used to prohibit unauthorized power increases. The marketing of RF amplifiers that are not FCC certified to be used as part of a specific system will continue to be prohibited.

Measurement Procedures for Digital Modulation Systems

13. In the *NPRM*, the Commission explained that unlicensed devices designed to use digital modulation techniques may be authorized under either the U–NII rules (Subpart E) or § 15.247 of part 15. When operating under either of these requirements the devices are limited to 1 watt maximum output power. However, the method used to determine the maximum power varies for U–NII and spread spectrum devices. Specifically, the output power measurement required under the Commission's U–NII device test procedure is an RMS average measurement, while the output power measurement required under the Commission's digitally-modulated spread spectrum device test procedure is a measurement of the overall peak emission. In adopting the U–NII rules, the Commission recognized that digital modulation techniques often display short duration peaks that do not cause increased interference to other operations. Measuring the peak level of short duration spikes overestimates interference potential. Accordingly, the Commission established measurement procedures for digital U–NII devices which allow for averaging output power in order to disregard these insignificant spikes.

14. In the *NPRM*, the Commission proposed to harmonize the measurement procedures for digital modulation devices authorized under § 15.247 with the digital U–NII devices authorized under § 15.407. Specifically, the Commission proposed to allow entities performing compliance testing for § 15.247 devices to use an average, rather than overall peak, emission as provided by § 15.407, paragraphs (a)(4) and (a)(5) when measuring transmit

power. The Commission proposed this change for devices using digital modulation that operate in the 915 MH_z, 2.4 GH_z and 5.7 GH_z bands.

15. The Commission believes that it is important to maintain consistent treatment of similar technologies regardless of the rule § under which it is authorized. Therefore, as proposed in the *NPRM*, the Commission will modify § 15.247 to permit the determination of the output power of a digitally modulated system by the same methods used to determine output power of systems operating pursuant to the U–NII rules. This measurement, in both cases, may be taken as an average power measurement as described in the Public Notice, ''Measurement Procedure Updated for Peak Transmit Power in the Unlicensed National Information Infrastructure (U–NII) Bands,'' DA 02–2138, 17 FCC Rcd 16521, August 30, 2002.

16. The Commission is not removing the existing measurement requirements for § 15.247 devices from the rules; instead, the new measurement procedure can be used optionally for digitally modulated § 15.247 devices. However, in order to address the concern of increased out-of-band emissions from devices authorized under § 15.247, we will require that if emissions are measured using the average power procedure, then out-of-band emission must be reduced to 30 dB below the level of the device's fundamental frequency.

17. The optional measurement procedure will be applicable to digitally modulated devices in the 915 MH_z, 2.4 GH_z and 5.7 GH_z bands. The Commission is not persuaded by Itron's comments to exclude the 915 MH_z band. Itron argues that using an average rather than peak power output measurement would result in higher-power devices being permitted to operate in the band. It states that changing the testing procedure could be detrimental to tens of millions of devices operating in the 915 MH_z band. The Commission finds that Itron has not made a significant showing to warrant exclusion of the 915 MH_z band from the revised regulations. The Commission continues to believe that these changes will benefit operators in the 915 MH_z band equally as well as operators in the 2.4 GH_z and 5.7 GH_z bands without resulting in increased risk of interference.

Frequency Hopping Channel Spacing Requirements

18. The Commission proposed to modify the frequency hopping spacing requirement to permit certain systems in the 2.4 GH_z band to utilize hopping channels separated by either 25 KH_z or two-thirds of the 20 dB bandwidth, whichever is greater. The Commission stated that although a single device's channels will not overlap in time, the operation of multiple devices using the new modulation technique simultaneously in a given area may cause the spectral occupancy and power density to increase, leading to an increased risk of interference. Therefore, the Commission sought comment on the interference potential of new waveforms with more gradual roll-off and potentially higher spectral power densities at the channel band edges.

19. The Commission believes that our proposal to modify the frequency hopping spacing requirement in the 2.4 GH_z band will provide for more spectrally efficient technologies. The Commission is therefore adopting our proposal. The Commission agrees with the commenters that the relaxed frequency hopping spacing requirement proposed should not be limited to systems using 75 or fewer channels. The Commission is therefore adopting the language that will not limit flexibility to systems using 75 or fewer channels. Frequency hopping systems that operate under the revised spacing rules will be limited to an output power of 125 mW.

20. The Commission is not extending this provision to the 915 MH_z band as requested. There are additional concerns with regard to altering the separation distances for frequency hopping systems in the 915 MH_z band. In particular, the 915 MH_z band has only 28 megahertz of available spectrum as opposed to 83.5 megahertz of spectrum in the 2.4 GH_z band. Because there is less spectrum available, wider skirts would have a greater impact. The Commission does not have sufficient information about the affects that modifying the spacing requirements would have on existing users of the band. Therefore, the Commission is not changing the channel spacing requirements for the 915 MH_z band at this time.

Improving Sharing in the Unlicensed Bands

21. The Commission declines to impose any type of spectrum etiquette for the part 15 bands that are the subject of this proceeding because they are already heavily used. The Commission believes that design flexibility has helped industry to develop efficient sharing and modulation schemes. It appears that the existing regulations have resulted in very efficient use of available unlicensed spectrum. However, the Commission also finds that the recommendations advanced by Microsoft have merit and should be taken under consideration. In particular, the Commission finds that Microsoft's suggestions may prove beneficial as the Commission proceeds in making additional spectrum available for unlicensed operation. For example, the Commission now has under consideration a *Notice of Proposed Rulemaking*, 69 FR 34103, June 18, 2004, seeking comment on issues related to allowing unlicensed devices to operate in unused portions, or ''White Spaces,'' in the TV broadcast spectrum. The Commission notes that a device operating in accordance with the suggested guidelines could more effectively share the broadcast band, minimizing the risk of interference to both TV stations and other unlicensed devices. The Commission will take into consideration possible requirements such as these as it contemplates making additional spectrum available for the operation of unlicensed devices.

Part 15 Unlicensed Modular Transmitter Approvals

22. In the *NPRM*, the Commission also proposed to clarify the equipment authorization requirements for modular transmitters. However, because there are complex and evolving issues associated with modular transmitters, the Commission determined that further information is needed before reasonable guidelines can be developed. Accordingly, the Commission will address this matter in a later Commission action.

Special Temporary Authority

23. The Commission proposed to delete the provisions in § 15.7 of the rules for obtaining a Special Temporary Authority (STA) to operate intentional or unintentional radiation devices not conforming to the part 15 rules. The Commission noted that the Office of Engineering and Technology has not granted any STAs under part 15 nor had any formal requests for an STA under these rules in the last 10 years. The Commission further noted that this need is being met through the allowances for STAs under the provisions in part 5 for experimental licenses.

24. Only Globespan Virata filed comments on this subject. It expresses support for removing the Special Temporary Authority provisions. The Commission concludes that the STA provisions of part 15 are no longer needed. The lack of interested parties commenting on this topic provides a further indication that the rule section has outlived its usefulness. Therefore, as proposed in the *NPRM*, the Commission deletes § 15.7 from the rules. STAs to

operate intentional or unintentional radiation devices not conforming to the part 15 rules will continue to be granted, as appropriate, under the experimental licensing provisions of part 5.

Revisions to Part 2

Import Conditions

25. In a comment filed in response to the 2002 Regulatory Flexibility Act Review, Hewlett-Packard Company (HP) asked that the Commission increase the number of devices not intended for use in a licensed service that may be imported to 2000 or fewer for testing and evaluation and 100 or fewer for demonstration purposes. HP further requests that the modified rules be expanded to permit demonstration prototypes to be used, in addition to trade shows, for any other purpose designed to build market awareness. As an alternative to the suggested rule changes, HP states that the Commission could consider combining §§ 2.1204(a)(3) and 2.1204(a)(4) to create a limit of 2100 devices for all pre-authorized units to be used for, ''design refinement, software development, marketing and customer support program development, or any other needed product development purpose, including promoting market awareness.'' HP contends that this relaxation of the import regulations would more accurately reflect the manufacturing and marketing procedures in use today.

26. The Commission proposed to relax the import restrictions as requested by HP. However, the Commission also expressed concern that increasing the limit as HP requests might encourage some manufacturers to import far more devices than necessary and to request an exception to import an even greater number of devices, without sufficient cause. The Commission sought comment on both the necessity of increasing the importation limit and the possibility of abuse of a revised rule.

27. The Commission does not believe that commenters have made a compelling argument supporting the need for a modification to the importation regulations. The Commission routinely receives requests to import products in greater numbers than provided for in the current rules. Such requests are generally processed with little delay. To be more specific, our Office of Engineering and Technology Laboratory processes, on average, only about twenty-five such requests per year. This limited number of requests does not impose a significant administrative burden on the Commission. Furthermore, the requests are useful to our staff because they indicate how many devices are being imported prior to authorization. The Commission remains concerned that relaxation of the import rules might result in an unnecessary influx of excess equipment and increase the likelihood that manufacturers will lose track of unauthorized devices. Accordingly, the Commission declines to modify the § 2.1204 importation regulations.

Electronic Filing

28. The Commission proposed three changes which it believed would streamline our filing process by reducing paperwork burdens and further our efforts to comply with the E-Government initiative. Specifically, it proposed to 1) delete the provisions for paper filing of an application for Certification in § 2.913, noting that no requests to submit paper filings had been received in the past five years; 2) modify § 2.926(c) to require electronic filing for all grantee code assignment requests, and; 3) modify §§ 2.929(c) and (d) to require electronic filing for all changes in address, company name, contact person, and control/sale of the grantee.

29. With the support of commenters, the Commission concludes that the paper filing provisions in §§ 2.913(c), 2.926(c), 2.929(c), and 2.929(d) of the rules are unnecessary and outdated. The proposed revisions would facilitate more efficient document filing and processing. Therefore, the Commission will make the changes to §§ 2.913(c), 2.926(c), 2.929(c), and 2.929(d) as proposed in the *NPRM.*

Accreditation of Test Laboratories

30. The Commission observed that the rules do not address re-evaluation intervals for laboratories that test devices for part 15 and part 18 compliance. Accrediting bodies that evaluate the laboratories generally determine these intervals themselves. While domestic laboratories are generally re-evaluated at two-year intervals, some Accrediting Bodies reassess foreign laboratories only every 7 years. The Commission indicated that it is important that all laboratories, both foreign and domestic, be re-certified on a common interval. Therefore, the Commission proposed to modify § 2.948 to clarify that all test sites, both foreign and domestic, must be reassessed by their Accrediting Body every two years. The Commission proposed to modify § 2.962(e)(1) to clarify that every Telecommunications Certification Body must be re-accredited every 2 years for continued accreditation.

31. The Commission modified § 2.948 to clarify that all test sites must be reassessed by their Accrediting Body every two years. Additionally, the Commission is modifying § 2.962 by adding a new paragraph (c)(7) to clarify that every Telecommunications Certification Body must be reassessed on two-year intervals.

Miscellaneous

32. Finally, the Commission makes an editorial change to § 15.31(a)(3) to update the reference to ANSI C63.4 to its newest version. Specifically, the Commission is replacing ''ANSI C63.4–2001'' with ''ANSI C63.4–2003.'' The Note to paragraph (a)(3) remains unchanged.

Final Regulatory Flexibility Analysis

33. As required by the Regulatory Flexibility Act (''RFA''),[1] an Initial Regulatory Flexibility Analysis (''IRFA'') was incorporated in the *Notice of Proposed Rule Making (''NPRM''),* ET Docket 03–201. The Commission sought written public comment on the proposals in the *Notice,* including comment on the IRFA. We find that the rules adopted in the Report and Order will not have a significant economic impact on a substantial number of small entities.[2] The Commission has nonetheless provided this Final Regulatory Flexibility Analysis (''FRFA'') to provide a fuller record in this proceeding. This FRFA conforms to the RFA.[3]

A. Need for, and Objectives of, the Report and Order

34. Section 11 of the Communications Act of 1934, as amended, and § 202(h) of the Telecommunications Act of 1996 require the Commission (1) to review biennially its regulations pertaining to telecommunications service providers and broadcast ownership; and (2) to determine whether economic competition has made those regulations no longer necessary in the public interest. The Commission is directed to modify or repeal any such regulations that it finds are no longer in the public interest.

35. On September 6, 2002, the Commission released a *Public Notice* seeking comments regarding Commission rules which may be

[1] *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. 104–121, Title II, 110 Stat. 857 (1996).

[2] Thus, we could certify that an analysis is not required. *See* 5 U.S.C. 605(b).

[3] *See* 5 U.S.C. 604.

outdated and in need of revision.[4] The *Public Notice* identified a number of rule sections in parts 2 and 15 as candidates for review, and encouraged interested parties to provide comment on these rules. Subsequently, on September 26, 2002, the Commission released a separate *Public Notice* seeking suggestions as to which rule parts administered by the Commission's Office of Engineering and Technology should be modified or repealed as part of the 2002 biennial review.[5] Some of the comments filed in response to these *Public Notices* were addressed by *NPRM*. The *NPRM* also addressed other issues raised as a result of recent changes in technology.

36. The *NPRM* proposed several changes to parts 2, 15 and other parts of the rules. Specifically, it proposed to:

(1) modify the rules to permit the use of advanced antenna technologies with spread spectrum devices in the 2.4 GHz band;

(2) modify the replacement antenna restriction for part 15 devices;

(3) modify the equipment authorization procedures to provide more flexibility to configure transmission systems without the need to obtain separate authorization for every combination of system components;

(4) harmonize the measurement procedures for digital modulation systems authorized pursuant to § 15.247 of the rules with those for similar U-NII devices authorized under §§ 15.401–15.407 of the rules; [6]

(5) modify the channel spacing requirements for frequency hopping spread spectrum devices in the 2.4 GHz band in order to remove barriers to the introduction of new technology that uses wider bandwidths;

(6) clarify the equipment authorization requirements for modular transmitters; and

(7) make other changes to update or correct parts 2 and 15 of our rules.

37. These proposals would prove beneficial to manufacturers and users of unlicensed technology, including those who provide services to rural communities. Specifically, the Commission noted that a growing number of service providers are using unlicensed devices within wireless networks to serve the varied needs of industry, government, and general consumers alike. One of the more interesting developments is the emergence of wireless Internet service providers or ''WISPs.'' Using unlicensed devices, WISPs around the country are providing an alternative high-speed connection in areas where cable or DSL services have been slow to arrive. The Commission believes that the increased flexibility proposed in the *NPRM* would help to foster a viable last mile solution for delivering Internet services, other data applications, or even video and voice services to underserved, rural, or isolated communities.

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

38. No comments were filed in response to the IRFA.

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

39. The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[7] The RFA defines the term ''small entity'' as having the same meaning as the terms ''small business,'' ''small organization,'' and ''small business concern'' under Section 3 of the Small Business Act.[8] Under the Small Business Act, a ''small business concern'' is one that: (1) is independently owned and operated; (2) is not dominant in its field of operations; and (3) meets may additional criteria established by the Small Business Administration (SBA).[9]

40. The rules adopted in the *Report and Order* pertains to manufacturers of unlicensed communications devices. The appropriate small business size standard is that which the SBA has established for radio and television broadcasting and wireless communications equipment manufacturing. This category encompasses entities that primarily manufacture radio, television, and wireless communications equipment.[10] Under this standard, firms are considered small if they have 750 or fewer employees.[11] Census Bureau data for 1997 indicate that, for that year, there were a total of 1,215 establishments [12] in this category.[13] Of those, there were 1,150 that had employment under 500, and an additional 37 that had employment of 500 to 999. The percentage of wireless equipment manufacturers in this category is approximately 61.35%,[14] so the Commission estimates that the number of wireless equipment manufacturers with employment under 500 was actually closer to 706, with an additional 23 establishments having employment of between 500 and 999. Given the above, the Commission estimates that the great majority of wireless communications equipment manufacturers are small businesses.

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

41. Part 15 transmitters are already required to be authorized under the Commission's certification procedure as a prerequisite to marketing and importation. *See* 47 CFR 15.101, 15.201, 15.305, and 15.405. The changes adopted in this proceeding would not change any of the current reporting or recordkeeping requirements. Further, the regulations add permissible measurement techniques and methods of operation. The rules would not require the modification of any existing products.

E. Steps Taken To Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

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

[4] *See Public Notice, ''FCC Seeks Comment Regarding Possible Revision or Elimination of Rules Under The Regulatory Flexibility Act,* 5 U.S.C. 610,'' released September 6, 2002, DA 02–2152.

[5] *See Public Notice*, ''*The Commission Seeks Public Comment in the 2002 Biennial Review of Telecommunications Regulations within the Purview of the Office of Engineering and Technology,*'' released September 26, 2002, ET Docket No. 02–312.

[6] 47 CFR 15.247

[7] *See* U.S.C. 603(b)(3).

[8] *Id.* 601(3).

[9] *Id.* 632.

[10] NAICS code 334220.

[11] *Id.*

[12] The number of ''establishments'' is a less helpful indicator of small business prevalence in this context than would be the number of ''firms'' or ''companies,'' because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 1997, which was 1,089.

[13] U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, ''Industry Statistics by Employment Size,'' Table 4, NAICS code 334220 (issued August 1999).

[14] *Id.* Table 5, ''Industry Statistics by Industry and Primary Product Class Specialization: 1997.''

performance, rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

43. At this time, the Commission does not believe the rule changes contained in this Report and Order will have a significant economic impact on small entities. The *Report and Order* does not impose new device design standards. Instead, it relaxes the rules with respect to the types of devices which are allowed to operate pursuant to the Commission's regulations. There is no burden of compliance with the changes. Manufacturers may continue to produce devices which comply with the former rules and, if desired, design devices to comply with the new regulations. The rules will apply equally to large and small entities. Therefore, there is no inequitable impact on small entities. Finally, the *Report and Order* does not include a deadline for implementation. The Commission believes that the rules are relatively simple and do not require a transition period to implement. An entity desiring to take advantage of the relaxed regulations may do so at any time.

44. The Commission finds that the rule changes contained in this *Report and Order* will not present a significant economic burden to small entities.

F. Congressional Review Act.

45. The Commission will send a copy of the Report and Order, in a report to be sent to Congress and the General Accounting Office pursuant to the Congressional Review Act, *See* 5 U.S.C. 801(a)(1)(A).

Ordering Clauses

46. Parts 2 and 15 of the Commission's rules ARE AMENDED as specified in Rule Changes, effective October 7, 2004, except for §§ 2.913(c), 2.926(c), 2.929(c) and 2.929(d) which contains information collection requirements that are not effective until approved by the Office of Management and Budget. The FCC will publish a document in the **Federal Register** announcing the effective date for those sections. This action is taken pursuant to the authority contained in sections 4(i), 301, 302, 303(e), 303(f), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 301, 302, 303(e), 303(f), and 303(r).

47. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, *shall send* a copy of the *Report and Order,* including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Parts 2 and 15

Communications equipment.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

Rule Changes

■ For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 2 and 15 to read as follows:

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

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

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

■ 2. Section 2.913 is revised to read as follows:

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

(a) All applications for equipment authorization must be filed electronically via the Internet. Information on the procedures for electronically filing equipment authorization applications can be obtained from the address in paragraph (c) of this section and from the Internet at *https://gullfoss2.fcc.gov/prod/oet/cf/eas/index.cfm.*

(b) Unless otherwise directed, fees for applications for the equipment authorization, pursuant to § 1.1103 of this chapter, must be submitted either electronically via the Internet at *https://gullfoss2.fcc.gov/prod/oet/cf/eas/index.cfm* or by following the procedures described in § 0.401(b) of this chapter. The address for fees submitted by mail is: Federal Communications Commission, Equipment Approval Services, P.O. Box 358315, Pittsburgh, PA 15251–5315. If the applicant chooses to make use of an air courier/package delivery service, the following address must appear on the outside of the package/envelope: Federal Communications Commission, c/o Mellon Bank, Mellon Client, Service Center, 500 Ross Street—Room 670, Pittsburgh, PA 15262–0001.

(c) Any equipment samples requested by the Commission pursuant to the provisions of subpart J of this part shall, unless otherwise directed, be submitted to the Federal Communications Commission Laboratory, 7435 Oakland Mills Road, Columbia, Maryland, 21046.

■ 3. Section 2.926 is amended by revising introductory text to paragraph (c) to read as follows:

§ 2.926 FCC identifier.

* * * * *

(c) A grantee code will have three characters consisting of Arabic numerals, capital letters, or combination thereof. A prospective grantee or his authorized representative may receive a grantee code electronically via the Internet at *https://gullfoss2.fcc.gov/prod/oet/cf/eas/index.cfm.* The code may be obtained at any time prior to submittal of the application for equipment authorization. However, the fee required by § 1.1103 of this chapter must be submitted and validated within 30 days of the issuance of the grantee code, or the code will be removed from the Commission's records and a new grantee code will have to be obtained.

* * * * *

■ 4. Section 2.929 is amended by revising paragraphs (c) and (d) to read as follows:

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

(c) Whenever there is a change in the name and/or address of the grantee of an equipment authorization, notice of such change(s) shall be submitted to the Commission via the Internet at *https://gullfoss2.fcc.gov/prod/oet/cf/eas/index.cfm* 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://gullfoss2.fcc.gov/prod/oet/cf/eas/index.cfm* within 60 days after the consummation of the transaction. Depending on the circumstances in each case, the Commission may require new applications for equipment authorization. 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 equipment authorization may be filed covering all the affected equipment.

■ 5. Section 2.948 is amended by revising paragraphs (a)(2) and (d) to read as follows:

§ 2.948 Description of measurement facilities.

(a) * * *

(2) If the equipment is to be authorized by the Commission under the certification procedure, the party performing the measurements shall be accredited for performing such

measurements by an authorized accreditation body based on the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) Guide 25, ''General Requirements for the Competence of Calibration and Testing Laboratories.'' Accreditation bodies must be approved by the FCC's Office of Engineering and Technology, as indicated in § 0.241 of this chapter, to perform such accreditation based on ISO/IEC 58, ''Calibration and Testing Laboratory Accreditation Systems—General Requirements for Operation and Recognition.'' The frequency for revalidation of the test site and the information required to be filed or retained by the testing party shall comply with the requirements established by the accrediting organization. However, in all cases, test site revalidation shall occur on an interval not to exceed two years.

* * * * *

(d) A laboratory that has been accredited with a scope covering the required measurements 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 an approved accreditation organization based on the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) Standard 17025, ''General Requirements for the Competence of Calibration and Testing Laboratories.'' The organization accrediting the laboratory must be approved by the Commission's Office of Engineering and Technology, as indicated in § 0.241 of this chapter, to perform such accreditation based on ISO/IEC 58, ''Calibration and Testing Laboratory Accreditation Systems—General Requirements for Operation and Recognition.'' The frequency for revalidation of the test site 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. However, in all cases, test site revalidation shall occur on an interval not to exceed two years.

* * * * *

■ 6. Section 2.962 is amended by revising paragraphs (c)(3), (c)(4), (e) introductory text, (e)(1), (f)(1), (f)(3), and (g)(3), and by adding paragraph (c)(7), to read as follows:

§ 2.962 Requirements for a Telecommunications Certification Body.

* * * * *

(c) * * *

(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 Standard 17025 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 a 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 Standard 17025 and Guide 65, shall be taken into consideration.

* * * * *

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

* * * * *

(e) *Designation of a TCB.* (1) The Commission will designate as a TCB any organization that meets the qualification criteria and is accredited by NIST or its recognized accreditor.

* * * * *

(f) * * *

(1) A TCB shall certify equipment in accordance with the Commission's rules and policies.

* * * * *

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

* * * * *

(g) * * *

(3) If during post market surveillance of a certified product, a TCB determines that a product fails to comply with the applicable technical regulations, the Telecommunication Certification Body shall immediately notify the grantee and the Commission. A follow-up report shall also be provided within thirty days of the action taken by the grantee to correct the situation.

* * * * *

PART 15—RADIO FREQUENCY DEVICES

■ 7. The authority citation for part 15 continues to read as follows:

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

§ 15.7 [Removed]

■ 8. Section 15.7 is removed.

■ 9. Section 15.31 is amended by revising paragraph (a)(3) to read as follows:

§ 15.31 Measurement standards.

(a) * * *

* * * * *

(3) Other intentional and unintentional radiators are to be measured for compliance using the following procedure excluding sections 4.1.5.2, 5.7, 9 and 14: ANSI C63.4–2003: ''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.

* * * * *

■ 10. Section 15.38 is amended by revising paragraph (b)(6) to read as follows:

§ 15.38 Incorporation by reference.

* * * * *

(b) * * *

(6) ANSI C63.4–2003: ''Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz,'' 2003, IBR approved for § 15.31, except for sections 4.1, 5.2, 5.7, 9 and 14.

* * * * *

■ 11. Section 15.204 is revised to read as follows:

§ 15.204 External radio frequency power amplifiers and antenna modifications.

(a) Except as otherwise described in paragraphs (b) and (d) of this section, no person shall use, manufacture, sell or lease, offer for sale or lease (including advertising for sale or lease), or import, ship, or distribute for the purpose of selling or leasing, any external radio frequency power amplifier or amplifier kit intended for use with a part 15 intentional radiator.

(b) A transmission system consisting of an intentional radiator, an external radio frequency power amplifier, and an antenna, may be authorized, marketed and used under this part. Except as described otherwise in this section, when a transmission system is authorized as a system, it must always be marketed as a complete system and must always be used in the configuration in which it was authorized.

(c) An intentional radiator may be operated only with the antenna with which it is authorized. If an antenna is marketed with the intentional radiator,

it shall be of a type which is authorized with the intentional radiator. An intentional radiator may be authorized with multiple antenna types.

(1) The antenna type, as used in this paragraph, refers to antennas that have similar in-band and out-of-band radiation patterns.

(2) Compliance testing shall be performed using the highest gain antenna for each type of antenna to be certified with the intentional radiator. During this testing, the intentional radiator shall be operated at its maximum available output power level.

(3) Manufacturers shall supply a list of acceptable antenna types with the application for equipment authorization of the intentional radiator.

(4) Any antenna that is of the same type and of equal or less directional gain as an antenna that is authorized with the intentional radiator may be marketed with, and used with, that intentional radiator. No retesting of this system configuration is required. The marketing or use of a system configuration that employs an antenna of a different type, or that operates at a higher gain, than the antenna authorized with the intentional radiator is not permitted unless the procedures specified in § 2.1043 of this chapter are followed.

(d) Except as described in this paragraph, an external radio frequency power amplifier or amplifier kit shall be marketed only with the system configuration with which it was approved and not as a separate product.

(1) An external radio frequency power amplifier may be marketed for individual sale provided it is intended for use in conjunction with a transmitter that operates in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands pursuant to § 15.247 of this part or a transmitter that operates in the 5.725–5.825 GHz band pursuant to § 15.407 of this part. The amplifier must be of a design such that it can only be connected as part of a system in which it has been previously authorized. (The use of a non-standard connector or a form of electronic system identification is acceptable.) The output power of such an amplifier must not exceed the maximum permitted output power of its associated transmitter.

(2) The outside packaging and user manual for external radio frequency power amplifiers sold in accordance with paragraph (d)(1) of this section must include notification that the amplifier can be used only in a system which it has obtained authorization. Such a notice must identify the authorized system by FCC Identifier.

■ 12. Section 15.247 is amended by revising paragraphs (a), (b) introductory text, (b)(1), (b)(3), (b)(4) introductory text, (c), (d), and by adding paragraph (e) to read as follows:

§ 15.247 Operation within the bands 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz.

(a) Operation under the provisions of this Section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

(i) For frequency hopping systems operating in the 902–928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

(ii) Frequency hopping systems operating in the 5725–5850 MHz band shall use at least 75 hopping frequencies. The maximum 20 dB bandwidth of the hopping channel is 1 MHz. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

(iii) Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

(2) Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

(b) The maximum peak conducted output power of the intentional radiator shall not exceed the following:

(1) For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

* * * * *

(3) For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the *maximum conducted output power* is the highest total transmit power occurring in any mode.

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(c) Operation with directional antenna gains greater than 6 dBi.

(1) Fixed point-to-point operation:

(i) Systems operating in the 2400–2483.5 MHz band that are used

exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

(ii) Systems operating in the 5725–5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted output power.

(iii) Fixed, point-to-point operation, as used in paragraphs (c)(1)(i) and (c)(1)(ii) of this section, excludes the use of point-to-multipoint systems, omnidirectional applications, and multiple co-located intentional radiators transmitting the same information. The operator of the spread spectrum or digitally modulated intentional radiator or, if the equipment is professionally installed, the installer is responsible for ensuring that the system is used exclusively for fixed, point-to-point operations. The instruction manual furnished with the intentional radiator shall contain language in the installation instructions informing the operator and the installer of this responsibility.

(2) In addition to the provisions in paragraphs (b)(1), (b)(3), (b)(4) and (c)(1)(i) of this section, transmitters operating in the 2400–2483.5 MHz band that emit multiple directional beams, simultaneously or sequentially, for the purpose of directing signals to individual receivers or to groups of receivers provided the emissions comply with the following:

(i) Different information must be transmitted to each receiver.

(ii) If the transmitter employs an antenna system that emits multiple directional beams but does not do emit multiple directional beams simultaneously, the total output power conducted to the array or arrays that comprise the device, i.e., the sum of the power supplied to all antennas, antenna elements, staves, etc. and summed across all carriers or frequency channels, shall not exceed the limit specified in paragraph (b)(1) or (b)(3) of this section, as applicable. However, the total conducted output power shall be reduced by 1 dB below the specified limits for each 3 dB that the directional gain of the antenna/antenna array exceeds 6 dBi. The directional antenna gain shall be computed as follows:

(A) The directional gain shall be calculated as the sum of 10 log (number of array elements or staves) plus the directional gain of the element or stave having the highest gain.

(B) A lower value for the directional gain than that calculated in paragraph (c)(2)(ii)(A) of this section will be accepted if sufficient evidence is presented, e.g., due to shading of the array or coherence loss in the beamforming.

(iii) If a transmitter employs an antenna that operates simultaneously on multiple directional beams using the same or different frequency channels, the power supplied to each emission beam is subject to the power limit specified in paragraph (c)(2)(ii) of this section. If transmitted beams overlap, the power shall be reduced to ensure that their aggregate power does not exceed the limit specified in paragraph (c)(2)(ii) of this section. In addition, the aggregate power transmitted simultaneously on all beams shall not exceed the limit specified in paragraph (c)(2)(ii) of this section by more than 8 dB.

(iv) Transmitters that emit a single directional beam shall operate under the provisions of paragraph (c)(1) of this section.

(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

(e) For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

(i) Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. *See* § 1.1307(b)(1) of this chapter.

■ 14. Section 15.403 is amended by revising paragraph (n), removing paragraph (r), and redesignating paragraphs (s) and (t) as paragraphs (r) and (s) to read as follows:

§ 15.403 Definitions.

* * * * *

(n) *Maximum Conducted Output Power.* The total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (*e.g.,* alternative modulation methods), the *maximum conducted output power* is the highest total transmit power occurring in any mode.

* * * * *

■ 15. Section 15.407 is amended by revising paragraphs (a)(1) through (a)(6) and by removing and reserving paragraph (d) to read as follows:

§ 15.407 General technical requirements.

(a) * * *

(1) For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than

6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725–5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 17 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U–NII devices operating in this band may employ transmitting antennas with directional gain up to 23 dBi without any corresponding reduction in the transmitter peak output power or peak power spectral density. For fixed, point-to-point U–NII transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in peak transmitter power and peak power spectral density for each 1 dB of antenna gain in excess of 23 dBi would be required. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U–NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Note to paragraph (a)(3): The Commission strongly recommends that parties employing U–NII devices to provide critical communications services should determine if there are any nearby Government radar systems that could affect their operation.

(4) The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement conforming to the above definitions for the emission in question.

(5) The peak power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A resolution bandwidth less than the measurement bandwidth can be used, provided that the measured power is integrated to show total power over the measurement bandwidth. If the resolution bandwidth is approximately equal to the measurement bandwidth, and much less than the emission bandwidth of the equipment under test, the measured results shall be corrected to account for any difference between the resolution bandwidth of the test instrument and its actual noise bandwidth.

(6) The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

* * * * *

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BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 25

[CC Docket No. 94–102, IB Docket No. 99–67; FCC 04–201]

Scope of Enhanced 911 Requirements

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Commission sets forth recordkeeping and reporting requirements in connection with mobile satellite service (MSS) providers' implementation of 911 emergency call centers. As many citizens, elected representatives, and public safety personnel recognize, 911 service is critical to our Nation's ability to respond to a host of crises and this document enhances the Nation's ability to do so.

DATES: Effective February 14, 2005. The pre-implementation call center reports (a one-time filing) are due by October 12, 2004. The post-implementation call center reports are due annually, beginning on October 15, 2005.

ADDRESSES: All comments should be addressed to the Office of the Secretary, Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554. In addition to filing comments with the Secretary, a copy of any Paperwork Reduction Act (PRA) comments on the information collection(s) contained herein should be submitted to Judith B. Herman, Federal Communications Commission, Room 1–C804, 445 12th Street, SW., Washington, DC 20554, or via the Internet to *Judith-B.Herman@fcc.gov*, and to Kristy L. LaLonde, OMB Desk Officer, Room 10234 NEOB, 725 17th Street, NW., Washington, DC 20503 via the Internet to *Kristy_L._LaLonde@omb.eop.gov* or by fax to 202–395–5167.

FOR FURTHER INFORMATION CONTACT: Arthur Lechtman, Satellite Division, International Bureau, at (202) 418–1465. For additional information concerning the information collection(s) contained in this document, contact Judith B. Herman at 202–418–0214, or via the Internet at *Judith-B.Herman@fcc.gov.*

SUPPLEMENTARY INFORMATION: This is a summary of the *Second Report and Order* (R&O), adopted on August 18, 2004, and released on August 25, 2004. The full text of the *Second Report and Order* is available for public inspection and copying during regular business hours at the FCC Reference Information Center, Portals II, 445 12th Street, SW., Room CY–A257, Washington, DC 20554. This document may also be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., Portals II, 445 12th Street, SW., Room CY–B402, Washington, DC 20554, telephone 202–863–2893, facsimile 202–863–2898, or via e-mail *FCC@BCPIWEB.com.* This R&O contains a modified information collection subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104–13. It will be submitted to the Office of Management and Budget (OMB) for review under the PRA. OMB, the general public, and other Federal agencies are invited to comment on the modified information collection contained in this proceeding.

Paperwork Reduction Act of 1995 Analysis

Initial Paperwork Reduction Act of 1995 Analysis

This R&O contains a modified information collection. Specifically, the Commission previously obtained Office of Management and Budget (OMB) approval for submission of the post-implementation call center report in paper format (See OMB Control Number 3060–1059). The *Second Report and Order* requires mandatory electronic filing of these reports. The Commission, as part of its continuing effort to reduce