

(ii) Distinctly different models of a product and separate generations of a particular model under development are considered to be separate devices.

\* \* \* \* \*

15. Part 5 is revised in its entirety, to read as follows:

**PART 5—EXPERIMENTAL RADIO SERVICE**

**Subpart A—General**

Sec.

- § 5.1 Basis and purpose.
- § 5.3 Scope of service.
- § 5.5 Definition of terms.

**Subpart B—Applications and Licenses**

LICENSE REQUIREMENTS

- § 5.51 Eligibility of license.
- § 5.53 Station authorization required.
- § 5.54 Types of authorizations available.

GENERAL FILING REQUIREMENTS

- § 5.55 Filing of applications.
- § 5.57 Who may sign applications.
- § 5.59 Forms to be used.
- § 5.61 Procedure for obtaining a special temporary authorization.
- § 5.63 Supplemental statements required.
- § 5.64 Special provisions for satellite systems.
- § 5.65 Defective applications.
- § 5.67 Amendment or dismissal of applications.
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- § 5.71 License period.
- § 5.73 Experimental report.
- § 5.77 Change in equipment and emission characteristics.
- § 5.79 Transfer and assignment of station authorization for conventional, program , medical testing, and compliance testing experimental radio licenses.
- § 5.81 Discontinuance of station operation.
- § 5.83 Cancellation provisions.
- § 5.84 Non-interference criterion.
- § 5.85 Frequencies and policy governing frequency assignment.
- § 5.91 Notification to the National Radio Astronomy Observatory.
- § 5.95 Informal objections.

**Subpart C—Technical Standards and Operating Requirements**

- § 5.101 Frequency stability.
- § 5.103 Types of emission.
- § 5.105 Authorized bandwidth.

- § 5.107 Transmitter control requirements.
- § 5.109 Responsibility for antenna structure painting and lighting.
- § 5.110 Power limitations.
- § 5.111 Limitations on use.
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- § 5.121 Station record requirements.
- § 5.123 Inspection of stations.
- § 5.125 Authorized points of communication.

#### **Subpart D—Broadcast Experimental Licenses**

- § 5.201 Applicable rules.
- § 5.203 Experimental authorizations for licensed broadcast stations.
- § 5.205 Licensing requirements, necessary showing.
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- § 5.211 Frequency monitors and measurements.
- § 5.213 Time of operation.
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- § 5.217 Rebroadcasts.
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#### **Subpart E—Program Experimental Licenses**

- § 5.301 Applicable rules.
- § 5.302 Eligibility.
- § 5.303 Frequencies.
- § 5.304 Area of operations.
- § 5.305 Program license not permitted.
- § 5.307 Responsible party.
- § 5.308 Stop buzzer.
- § 5.309 Notification requirements.
- § 5.311 Additional requirements related to safety of the public.
- § 5.313 Innovation zones.

#### **Subpart F—Medical Testing Experimental Licenses**

- § 5.401 Applicable rules.
- § 5.402 Eligibility and usage.
- § 5.403 Frequencies.
- § 5.404 Area of operation.
- § 5.405 Yearly report.
- § 5.406 Responsible party, notification requirements, and additional requirements related to safety of the public.
- § 5.407 Exemption from station identification requirement.

#### **Subpart G—Compliance Testing Experimental Licenses**

- § 5.501 Applicable rules.
- § 5.502 Eligibility.
- § 5.503 Scope of testing activities.
- § 5.504 Responsible party.

§ 5.505 Exemption from station identification requirement.

### **Subpart H—Product Development and Market Trials**

§ 5.601 Product Development Trials.

§ 5.602 Market Trials.

**Authority:** Secs. 4, 302, 303, 307, 336 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 302, 303, 307, 336. Interpret or apply sec. 301, 48 Stat. 1081, as amended; 47 U.S.C. 301.

### **Subpart A—General**

#### **§ 5.1 Basis and purpose.**

(a) *Basis.* The rules following in this part are promulgated pursuant to the provisions of Title III of the Communications Act of 1934, as amended, which vests authority in the Federal Communications Commission to regulate radio transmissions and to issue licenses for radio stations.

(b) *Purpose.* The rules in this part provide the conditions by which portions of the radio frequency spectrum may be used for the purposes of experimentation, product development, and market trials.

#### **§ 5.3 Scope of service.**

Stations operating in the Experimental Radio Service will be permitted to conduct the following type of operations:

- (a) Experimentations in scientific or technical radio research.
- (b) Experimentations in the broadcast services.
- (c) Experimentations under contractual agreement with the United States Government, or for export purposes.
- (d) Communications essential to a research project.
- (e) Technical demonstrations of equipment or techniques.
- (f) Field strength surveys.
- (g) Demonstration of equipment to prospective purchasers by persons engaged in the business of selling radio equipment.
- (h) Testing of equipment in connection with production or regulatory approval of such equipment.
- (i) Testing of medical devices that use RF wireless technology or communications functions for diagnosis, treatment, or patient monitoring.
- (j) Development of radio technique, equipment, operational data or engineering data, including field or factory testing or calibration of equipment, related to an existing or proposed radio service.
- (k) Product development and market trials.

(l) Types of experiments that are not specifically covered under paragraphs (a) through (k) of this section will be considered upon demonstration of need for such additional types of experiments.

### § 5.5 Definition of terms.

For the purposes of this part, the following definitions shall be applicable. For other definitions, refer to part 2 of this chapter (Frequency Allocations and Radio Treaty Matters; General Rules and Regulations).

*Authorized frequency.* The frequency assigned to a station by the Commission and specified in the instrument of authorization.

*Authorized power.* The power assigned to a radio station by the Commission and specified in the instrument of authorization.

*Experimental radio service.* A service in which radio waves are employed for purposes of experimentation in the radio art or for purposes of providing essential communications for research projects that could not be conducted without the benefit of such communications.

*Experimental station.* A station utilizing radio waves in experiments with a view to the development of science or technique.

*Harmful interference.* Any radiation or induction that endangers the functioning of a radionavigation or safety service, or obstructs or repeatedly interrupts a radio service operating in accordance with the Table of Frequency Allocations and other provisions of part 2 of this chapter.

*Landing area.* As defined by 49 U.S.C. 40102(a)(28), any locality, either of land or water, including airdromes and intermediate landing fields, that is used, or intended to be used, for the landing and take-off of aircraft, whether or not facilities are provided for the shelter, servicing, or repair of aircraft, or for receiving or discharging passengers or cargo.

*Market trial.* A program designed to evaluate product performance and customer acceptability prior to the production stage, and typically requires testing a specific product under expected use conditions to evaluate actual performance and effectiveness.

*Open Area Test Site.* A site for electromagnetic measurements that has a reflective ground plane, and is characterized by open, flat terrain at a distance far enough away from buildings, electric lines, fences, trees, underground cables, pipelines, and other potential reflective objects, so that the effects due to such objects are negligible.

*Person.* An individual, partnership, association, joint stock company, trust, corporation, or state or local government.

*Product development trial.* An experimental program designed to evaluate product performance (including medical devices in clinical trials) in the conceptual, developmental, and design stages, and typically requiring testing under expected use conditions.

**Subpart B—Applications and Licenses****License requirements.****§ 5.51 Eligibility.**

(a) Authorizations for stations in the Experimental Radio Service will be issued only to persons qualified to conduct the types of operations permitted in § 5.3 of this part, including testing laboratories recognized by the Commission for radio frequency product testing.

(b) No foreign government or representative thereof is eligible to hold a station license in the Experimental Radio Service.

**§ 5.53 Station authorization required.**

No radio transmitter shall be operated in the Experimental Radio Service in the United States and its Territories except under and in accordance with a proper station authorization granted by the Commission.

**§ 5.54 Types of authorizations available.**

The Commission issues the following types of experimental authorizations:

(a)(1) *Conventional experimental radio license.* This type of license is issued for a specific research or experimentation project (or a series of closely-related research or experimentation projects), a product development trial, or a market trial. Widely divergent and unrelated experiments must be conducted under separate licenses.

(2) *Special temporary authorization.* When an experimental program is expected to last no more than six months, its operation is considered to be temporary and the special temporary authorization procedure outlined in § 5.61 must be used.

(b) *Broadcast experimental radio license.* This type of license is issued for the purpose of research and experimentation for the development and advancement of new broadcast technology, equipment, systems or services. This is limited to stations intended for reception and use by the general public.

(c) *Program experimental radio license.* This type of license is issued to qualified institutions and to conduct an ongoing program of research and experimentation under a single experimental authorization subject to the requirements of subpart E of this part. Program experimental radio licenses are available to colleges, universities, research laboratories, manufacturers of radio frequency equipment, manufacturers that integrate radio frequency equipment into their end products, and medical research institutions.

(d) *Medical testing experimental radio license.* This type of license is issued to hospitals and health care institutions that demonstrate expertise in testing and operation of experimental medical devices that use wireless telecommunications technology or communications functions in clinical trials for diagnosis, treatment, or patient monitoring.

(e) *Compliance testing experimental radio license.* This type of license will be issued to laboratories recognized by the FCC under Subpart J of this chapter to perform:

(i) product testing of radio frequency equipment, and

(ii) testing of radio frequency equipment in an Open Area Test Site.

(f) An experimental license is not required when operation of a radiofrequency device is fully contained within an anechoic chamber or a Faraday cage.

### **General Filing Requirements.**

#### **§ 5.55 Filing of applications.**

(a) To assure that necessary information is supplied in a consistent manner by applicants, standard forms must be used, except for applications for special temporary authorization (STA) and reports submitted for Commission consideration. Standard numbered forms for the Experimental Radio Service are described in § 5.59.

(b) Applications requiring fees as set forth in part 1, subpart G of this chapter must be filed in accordance with § 0.401(b) of this chapter.

(c) Each application for station authorization shall be specific and complete with regard to the information required by the application form and this part.

(1) Conventional license and STA applications shall be specific as to station location, proposed equipment, power, antenna height, and operating frequencies.

(2) Broadcast license applicants shall comply with the requirements in Subpart D; Program license applicants shall comply with the requirements in Subpart E; Medical Testing license applicants shall comply with the requirements in Subpart F; and Compliance Testing license applicants shall comply with the requirements in Subpart G.

(d) Filing conventional, program, medical, and compliance testing experimental radio license applications:

(1) Applications for radio station authorization shall be submitted electronically through the Office of Engineering and Technology website <http://www.fcc.gov/els>.

(2) Applications for special temporary authorization shall be filed in accordance with the procedures of § 5.61 of this part.

(3) Any correspondence relating thereto that cannot be submitted electronically shall instead be submitted to the Commission's Office of Engineering and Technology, Washington, DC 20554.

(e) For broadcast experimental radio licenses, applications for radio station authorization shall be submitted in accordance with the provisions of §5.59 of this part.

#### **§ 5.57 Who may sign applications.**

(a) Except as provided in paragraph (b), applications, amendments thereto, and related statements of fact required by the Commission shall be personally signed by the applicant, if the applicant is an individual; by one of the partners, if the applicant is a partnership; by an officer or duly authorized employee, if the applicant is a corporation; or by a member who is an officer, if the applicant is an unincorporated association. Applications, amendments, and related statements of fact filed on behalf of eligible government entities, such as states and territories of the United States and political subdivisions thereof, the District of Columbia, and units of local government, including incorporated

municipalities, shall be signed by such duly elected or appointed officials as may be competent to do so under the laws of the applicable jurisdiction.

(b) Applications, amendments thereto, and related statements of fact required by the Commission may be signed by the applicant's attorney in case of the applicant's physical disability or of his/her absence from the United States. The attorney shall in that event separately set forth the reason why the application is not signed by the applicant. In addition, if any matter is stated on the basis of the attorney's belief only (rather than his/her knowledge), he/she shall separately set forth reasons for believing that such statements are true.

(c) Only the original of applications, amendments, or related statements of fact need be signed; copies may be conformed.

(d) Applications, amendments, and related statements of fact need not be submitted under oath. Willful false statements made therein, however, are punishable by fine and imprisonment, U.S. Code, title 18, Sec. 1001, and by appropriate administrative sanctions, including revocation of station license pursuant to Sec. 312(a)(1) of the Communications Act of 1934, as amended.

(e) "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 with the intent that such symbol be a signature, including symbols formed by computer-generated electronic impulses.

#### **§ 5.59 Forms to be used.**

(a) *Application for conventional, program, medical, and compliance testing experimental radio licenses.*

(1) *Application for new authorization or modification of existing authorization.* Entities must submit FCC Form 442.

(2) *Application for renewal of experimental authorization.* Application for renewal of station license shall be submitted on FCC Form 405. Unless otherwise directed by the Commission, each application for renewal of license shall be filed at least 60 days prior to the expiration date of the license to be renewed.

(3) *Application for consent to assign an experimental authorization.* Application for consent to assign shall be submitted on FCC Form 702 when the legal right to control the use and operation of a station is to be transferred as a result of a voluntary act (contract or other agreement) or an involuntary act (death or legal disability) of the grantee of a station authorization or by involuntary assignment of the physical property constituting the station under a court decree in bankruptcy proceedings, or other court order, or by operation of law in any other manner.

(4) *Application for consent to transfer control of Corporation holding experimental authorization.* Application for consent to transfer control shall be submitted on FCC Form 703 whenever it is proposed to change the control of a corporation holding a station authorization.

(5) *Application for product development and market trials.* Application for product development and market trials shall be submitted on FCC Form 442.

(b) *Applications for broadcast experimental radio license.*

(1) *Application for new authorization or modification of existing authorization.* An application for a construction permit for a new broadcast experimental station or modification of an existing broadcast experimental station must be submitted on FCC Form 309.

(2) *Application for a license.* An application for a license to cover a construction permit for a broadcast experimental station must be submitted on FCC Form 310.

(3) *Application for renewal of license.* An application for renewal of station license for a broadcast experimental station must be submitted on FCC Form 311. Unless otherwise directed by the Commission, each application for renewal of license shall be filed at least 60 days prior to the expiration date of the license to be renewed.

**§ 5.61 Procedure for obtaining a special temporary authorization.**

(a)(1) An applicant may request a Special Temporary Authorization (STA) for operation of a conventional experimental radio service station during a period of time not to exceed 6 months.

(2) Applications for STA must be submitted electronically through the Office of Engineering and Technology website <http://www.fcc.gov/els> at least 10 days prior to the proposed operation. Applications filed less than 10 days prior to the proposed operation date will be accepted only upon a showing of good cause.

(3) In special situations, as defined in § 1.915(b)(1), a request for STA may be made by telephone or electronic media provided a properly signed application is filed within 10 days of such request.

(b) An application for STA shall contain the following information:

(1) Name, address, phone number (also e-mail address and facsimile number, if available) of the applicant.

(2) Explanation of why an STA is needed.

(3) Description of the operation to be conducted and its purpose.

(4) Time and dates of proposed operation.

(5) Class(es) of station (e.g. fixed, mobile, or both) and call sign of station (if applicable).

(6) Description of the location(s) and, if applicable, geographical coordinates of the proposed operation.

(7) Equipment to be used, including name of manufacturer, model and number of units.

(8) Frequency (or frequency bands) requested.

(9) Maximum effective radiated power (ERP) or equivalent isotropically radiated power (EIRP).

(10) Emission designator (see §2.201 of this chapter) or describe emission (bandwidth, modulation, etc.)

(11) Overall height of antenna structure above the ground (if greater than 6 meters above the ground or an existing structure, see part 17 of this chapter concerning notification to the FAA).



(c) Extensions of an STA may be granted provided that an application for a conventional experimental license that is consistent with the terms and conditions of that STA (*i.e.*, there is no increase in interference potential to authorized services) has been filed at least 15 days prior to the expiration of the licensee's STA. When such an application is timely filed, operations may continue in accordance with the other terms and conditions of the STA pending disposition of the application, unless the applicant is notified otherwise by the Commission.

### **§ 5.63 Supplemental statements required.**

Applicants must provide the information set forth on the applicable form as specified in § 5.59 of this part. In addition, applicants must provide supplemental information as described below:

(a) If installation and/or operation of the equipment may significantly impact the environment (see § 1.1307 of this chapter) an environmental assessment as defined in § 1.1311 of this chapter must be submitted with the application.

(b) If an applicant requests non-disclosure of proprietary information, requests shall follow the procedures for submission set forth in § 0.459 of this chapter.

(c) For conventional and broadcast experimental radio licenses, each application must include:

(1) A narrative statement describing in detail the program of research and experimentation proposed, the specific objectives sought to be accomplished; and how the program of experimentation has a reasonable promise of contribution to the development, extension, or expansion, or use of the radio art, or is along lines not already investigated.

(2) If the authorization is to be used for the purpose of fulfilling the requirements of a contract with an agency of the United States Government, a narrative statement describing the project, the name of the contracting agency, and the contract number.

(3) If the authorization is to be used for the sole purpose of developing equipment for exportation to be employed by stations under the jurisdiction of a foreign government, a narrative statement describing the project, any associated contract number, and the name of the foreign government concerned.

(4) If the authorization is to be used with a satellite system, a narrative statement containing the information required in § 5.64 of this part.

(d) For program experimental radio licenses, each application must include:

(1) A narrative statement describing how the applicant meets the eligibility criteria set forth in subpart E of this part.

(2) If the authorization is to be used for the purpose of fulfilling the requirements of a contract with an agency of the United States Government, a narrative statement describing the project, the name of the contracting agency, and the contract number.

(3) If the authorization is to be used for the sole purpose of developing equipment for exportation to be employed by stations under the jurisdiction of a foreign government, a narrative statement describing the project, any associated contract number, and the name of the foreign government concerned.

(e) For medical testing and compliance testing experimental radio licenses, each application must include a narrative statement describing how the applicant meets the eligibility criteria set forth in Section 5.402(a) and Section 5.502 of this part, respectively.

#### **§5.64 Special provisions for satellite systems.**

(a) Construction of proposed experimental satellite facilities may begin prior to Commission grant of an authorization. Such construction is entirely at the applicant's risk and does not entitle the applicant to any assurances that its proposed experiment will be subsequently approved or regular services subsequently authorized. The applicant must notify the Commission's Office of Engineering and Technology in writing that it plans to begin construction at its own risk.

(b) Except where the satellite system has already been authorized by the FCC, applicants for an experimental authorization involving a satellite system must submit a description of the design and operational strategies the satellite system will use to mitigate orbital debris, including the following information:

(1) A statement that the space station operator has assessed and limited the amount of debris released in a planned manner during normal operations, and has assessed and limited the probability of the space station becoming a source of debris by collisions with small debris or meteoroids that could cause loss of control and prevent post-mission disposal;

(2) A statement that the space station operator has assessed and limited the probability of accidental explosions during and after completion of mission operations. This statement must include a demonstration that debris generation will not result from the conversion of energy sources on board the spacecraft into energy that fragments the spacecraft. Energy sources include chemical, pressure, and kinetic energy. This demonstration shall address whether stored energy will be removed at the spacecraft's end of life, by depleting residual fuel and leaving all fuel line valves open, venting any pressurized system, leaving all batteries in a permanent discharge state, and removing any remaining source of stored energy, or through other equivalent procedures specifically disclosed in the application;

(3) A statement that the space station operator has assessed and limited the probability of the space station becoming a source of debris by collisions with large debris or other operational space stations. Where a space station will be launched into a low-Earth orbit that is identical, or very similar, to an orbit used by other space stations, the statement must include an analysis of the potential risk of collision and a description of what measures the space station operator plans to take to avoid in-orbit collisions. If the space station operator is relying on coordination with another system, the statement shall indicate what steps have been taken to contact, and ascertain the likelihood of successful coordination of physical operations with, the other system. The statement must disclose the accuracy—if any—with which orbital parameters of non-geostationary satellite orbit space stations will be maintained, including apogee, perigee, inclination, and the right ascension of the ascending node(s). In the event that a system is not able to maintain orbital tolerances, *i.e.*, it lacks a propulsion system for orbital maintenance, a statement disclosing that fact shall be included in the debris mitigation disclosure. Such systems shall also indicate the anticipated evolution over time of the orbit of the proposed satellite or satellites. Where a space station operator requests the assignment of a geostationary-Earth orbit location, it shall assess whether there are any known satellites located at, or reasonably expected to be located at, the requested orbital location, or assigned in the vicinity of that location, such that the station keeping volumes of the respective satellites might overlap. If so, the statement shall identify those parties and describe the measures that will be taken to prevent collisions;

(4) A statement detailing the post-mission disposal plans for the space station at end of life, including the quantity of fuel—if any—that will be reserved for post-mission disposal maneuvers. For geostationary-Earth orbit space stations, the statement shall disclose the altitude selected for a post-mission disposal orbit and the calculations that are used in deriving the disposal altitude. The statement shall also include a casualty risk assessment if planned post-mission disposal involves atmospheric re-entry of the space station. An assessment shall include a statement as to the likelihood that portions of the spacecraft will survive re-entry and reach the surface of the Earth, and the probability of human casualty as a result.

#### **§ 5.65 Defective applications.**

(a) Applications that are defective with respect to completeness of answers to required questions, execution or other matters of a purely formal character may be found to be unacceptable for filing by the Commission, and may be returned to the applicant with a brief statement as to the omissions.

(b) If an applicant is requested by the Commission to file any documents or information not included in the prescribed application form, failure to comply with such request will constitute a defect in the application.

(c) Applications not in accordance with the Commission's Rules, regulations, or other requirements will be considered defective unless accompanied either by:

(1) a petition to amend any rule, regulation, or requirement with which the application is in conflict; or

(2) a request for waiver of any rule, regulation, or requirement with which the application is in conflict. Such request shall show the nature of the waiver desired and set forth the reasons in support thereof.

#### **§ 5.67 Amendment or dismissal of applications.**

(a) Any application may be amended or dismissed without prejudice upon request of the applicant. Each amendment to or request for dismissal of an application shall be signed, authenticated, and submitted in the same manner as required for the original application. All subsequent correspondence or other material that the applicant desires to have incorporated as a part of an application already filed shall be submitted in the form of an amendment to the application.

(b) Defective applications, as defined in § 5.65 of this part, are subject to dismissal without prejudice.

#### **§ 5.69 License grants that differ from applications.**

If the Commission grants a license or special temporary authority with parameters that differ from those set forth in the application, an applicant may reject the grant by filing, within 30 days from the effective date of the grant, a written description of its objections. Upon receipt of such objection, the Commission will coordinate with the applicant in an attempt to resolve issues arising from the grant.

(a) Applicants may continue operating under the parameters of a granted special temporary authority (STA) during the time any problems are being resolved when:

(1) An application for a conventional license has been timely filed in accordance with §5.61 of this part; and

(2) The application for conventional license is for the same facilities and technical limitations as the existing STA.

(b) The applicant, at its option, may accept a grant-in-part of their license while working to resolve any issues.

#### **§ 5.71 License period.**

(a) *Conventional experimental radio licenses.*

(1) The regular license term is 2 years. An applicant may request a license term up to 5 years, but must provide justification for a license of that duration.

(2) A license may be renewed for an additional term not exceeding 5 years, upon an adequate showing of need to complete the experiment.

(b) *Program, medical testing, and compliance testing experimental radio licenses.* Licenses are issued for a term of 5 years and may be renewed for up to 5 years upon an adequate showing of need.

(c) *Broadcast experimental radio license.* Licenses are issued for a one-year period and may be renewed for an additional term not exceeding 5 years, upon an adequate showing of need.

#### **§ 5.73 Experimental report.**

(a) The following provisions apply to conventional experimental radio licenses and to medical testing experimental licenses that operate under Part 15, Radio Frequency Devices; Part 18, Industrial, Scientific, and Medical Equipment, Part 95, Personal Radio Services Subpart H – Wireless Medical Telemetry Service; or Part 95, Subpart I – Medical Device Radiocommunication Service:

(1) The Commission may, as a condition of authorization, request that the licensee forward periodic reports in order to evaluate the progress of the experimental program.

(2) An applicant may request that the Commission withhold from the public certain reports and associated material and the Commission will do so unless the public interest requires otherwise. These requests should follow the procedures for submission set forth in § 0.459 of this chapter.

(b) The provisions in § 5.207 of this part apply to broadcast experimental radio licenses.

(c) The provisions in § 5.309 of this part apply to program experimental licenses and to medical testing experimental licenses that do not operate under Part 15, Radio Frequency Devices; Part 18, Industrial, Scientific, and Medical Equipment, Part 95, Personal Radio Services Subpart H – Wireless Medical Telemetry Service; or Part 95, Subpart I – Medical Device Radiocommunication Service.

#### **§ 5.77 Change in equipment and emission characteristics.**

(a) The licensee of a conventional or broadcast experimental radio station may make any changes in equipment that are deemed desirable or necessary provided:

(1) That the operating frequency is not permitted to deviate more than the allowed tolerance;

(2) That the emissions are not permitted outside the authorized band;

(3) That the ERP (or EIRP) and antenna complies with the license and the regulations governing the same; and

(b) For conventional experimental radio stations, the changes permitted in paragraph (a) of this section may be made without prior authorization from the Commission provided that the licensee supplements its application file with a description of such change. If the licensee wants these emission changes to become a permanent part of the license, an application for modification must be filed.

(c) Prior authorization from the Commission is required before the following antenna changes may be made at a station at a fixed location:

(1) Any change that will either increase the height of a structure supporting the radiating portion of the antenna or decrease the height of a lighted antenna structure.

(2) Any change in the location of an antenna when such relocation involves a change in the geographic coordinates of latitude or longitude by one second or more, or when such relocation involves a change in street address.

**§ 5.79 Transfer and assignment of station authorization for conventional, program, medical testing, and compliance testing experimental radio licenses.**

A station authorization, the frequencies authorized to be used by the grantee of such authorization, and the rights therein granted by such authorization shall not be transferred, assigned, or in any manner either voluntarily or involuntarily disposed of, unless the Commission decides that such a transfer is in the public interest and gives its consent in writing.

**§ 5.81 Discontinuance of station operation.**

In case of permanent discontinuance of operation of a station in the Experimental Radio Service prior to the license expiration date, the licensee shall notify the Commission. Licensees who willfully fail to do so may be subject to disciplinary action, including monetary fines, by the Commission.

**§ 5.83 Cancellation provisions.**

The applicant for a station in the Experimental Radio Services accepts the license with the express understanding that:

(a) the authority to use the frequency or frequencies permitted by the license is granted upon an experimental basis only and does not confer any right to conduct an activity of a continuing nature; and

(b) the grant is subject to change or cancellation by the Commission at any time without notice or hearing if in its discretion the need for such action arises. However, a petition for reconsideration or application for review may be filed to such Commission action.

**§ 5.84 Non-interference criterion.**

Operation of an experimental radio station is permitted only on the condition that harmful interference is not caused to any station operating in accordance with the Table of Frequency Allocation of part 2 of this chapter. If harmful interference to an established radio service occurs, upon becoming aware of such harmful interference the Experimental Radio Service licensee shall immediately cease transmissions. Furthermore, the licensee shall not resume transmissions until the

licensee establishes to the satisfaction of the Commission that further harmful interference will not be caused to any established radio service.

**§ 5.85 Frequencies and policy governing frequency assignment.**

(a) Stations operating in the Experimental Radio Service may be authorized to use any Federal or non-Federal frequency designated in the Table of Frequency Allocations set forth in part 2 of this chapter, provided that the need for the frequency requested is fully justified by the applicant, except that experimental stations may not use any frequency or frequency band exclusively allocated to the passive services (including the radio astronomy service). Stations authorized under Subparts E and F are subject to additional restrictions.

(b) Frequency or frequency bands are assigned to stations in the Experimental Radio Service on a shared basis and are not assigned for the exclusive use of any one licensee. Frequency assignments may be restricted to specified geographical areas.

*(c) Broadcast experimental radio stations.*

(1) The applicant shall select frequencies best suited to the purpose of the experimentation and on which there appears to be the least likelihood of interference to established stations.

(2) Except as indicated, only frequencies allocated to broadcasting service are assigned. If an experiment cannot be feasibly conducted on frequencies allocated to a broadcasting service, an experimental station may be authorized to operate on other frequencies upon a satisfactory showing of the need therefore and a showing that the proposed operation can be conducted without causing harmful interference to established services.

*(d) Use of Public Safety Frequencies.*

(1) Conventional experimental licenses. Applicants in the Experimental Radio Service shall avoid use of public safety frequencies identified in part 90 of this chapter except when a compelling showing is made that use of such frequencies is in the public interest. If an experimental license to use public safety radio frequencies is granted, the authorization will include a condition requiring the experimental licensee to coordinate the operation with the appropriate frequency coordinator or all of the public safety licensees using the frequencies in question in the experimenter's proposed area of operation.

(2) Program experimental licenses. A program licensee shall plan a program of experimentation that avoids use of public safety frequencies, and may only operate on such frequencies when it can make a compelling showing that use of such frequencies is in the public interest. A licensee planning to operate on public safety frequencies must incorporate its public interest showing into the narrative statement it prepares under Section 5.309(a)(1), and must coordinate, prior to operating, with the appropriate frequency coordinator or all of the public safety licensees that operate on the frequencies in question in the program experimental licensee's proposed area of operation

(e) The Commission may, at its discretion, condition any experimental license or STA on the requirement that before commencing operation, the new licensee coordinate its proposed facility with other licensees that may receive interference as a result of the new licensee's operations.

*(f) Protection of FCC monitoring stations.*

(1) Applicants may need to protect FCC monitoring stations from interference and their station authorization may be conditioned accordingly. Geographical coordinates of such stations are listed in § 0.121(b) of this chapter.

(2) In the event that calculated value of expected field strength exceeds a direct wave fundamental field strength of greater than 10 mV/m in the authorized bandwidth of service ( $-65.8$  dBW/m<sup>2</sup> power flux density assuming a free space characteristic impedance of  $120\pi$  ohms) at the reference coordinates, or if there is any question whether field strength levels might exceed the threshold value, the applicant should call the FCC, telephone 1-888-225-5322 (1-888-CALL FCC).

(3) Coordination is suggested particularly for those applicants who have no reliable data that indicates whether the field strength or power flux density figure indicated in (f)(2) of this section would be exceeded by their proposed radio facilities (except mobile stations). The following is a suggested guide for determining whether coordination is needed:

(i) All stations within 2.4 kilometers (1.5 statute miles);

(ii) Stations within 4.8 kilometers (3 statute miles) with 50 watts or more average ERP in the primary plane of polarization in the azimuthal direction of the Monitoring Station;

(iii) Stations within 16 kilometers (10 statute miles) with 1 kW or more average ERP in the primary plane of polarization in the azimuthal direction of the Monitoring Station;

(iv) Stations within 80 kilometers (50 statute miles) with 25 kW or more average ERP in the primary plane of polarization in the azimuthal direction of the Monitoring Station.

(4) Advance coordination for stations operating above 1000 MHz is recommended only where the proposed station is in the vicinity of a monitoring station designated as a satellite monitoring facility in § 0.121(b) of this chapter and also meets the criteria outlined in paragraphs (f)(2) and (3) of this section.

#### **§ 5.91 Notification to the National Radio Astronomy Observatory.**

In order to minimize possible harmful interference at the National Radio Astronomy Observatory site located at Green Bank, Pocahontas County, West Virginia, and at the Naval Radio Research Observatory site at Sugar Grove, Pendleton County, West Virginia, any applicant for an Experimental Radio Service station authorization other than a mobile, temporary base, or temporary fixed station, within the area bounded by 39° 15' N on the north, 78° 30' W on the east, 37° 30' N on the south and 80° 30' W on the west shall, at the time of filing such application with the Commission, simultaneously notify the Director, National Radio Astronomy Observatory, P.O. Box NZ2, Green Bank, West Virginia, 24944, in writing, of the technical particulars of the proposed station. Such notification shall include the geographical coordinates of the antenna, antenna height, antenna directivity if any, frequency, type of emission, and power. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Observatory. After receipt of such applications, the Commission will allow a period of twenty (20) days for comments or objections in response to the notifications indicated. If an objection to the proposed operation is received during the twenty-day period from the National Radio Astronomy Observatory for itself or on behalf of the Naval Radio Research Observatory, the Commission will consider all aspects of the problem and take whatever action is deemed appropriate.

**§ 5.95 Informal objections.**

A person or entity desiring to object to or to oppose an Experimental Radio application for a station license or authorization may file an informal objection against that application. The informal objection and any responsive pleadings shall be submitted electronically consistent with the requirements set forth in §5.55 of this part.

**Subpart C—Technical Standards and Operating Requirements****§ 5.101 Frequency stability.**

Experimental Radio Service licensees shall ensure that transmitted emissions remain within the authorized frequency band under normal operating conditions: Equipment is presumed to operate over the temperature range -20 to +50 degrees Celsius with an input voltage variation of 85% to 115% of rated input voltage, unless justification is presented to demonstrate otherwise.

**§ 5.103 Types of emission.**

Stations in the Experimental Radio Service may be authorized to use any of the classifications of emissions covered in part 2 of this chapter.

**§ 5.105 Authorized bandwidth.**

The occupied bandwidth of transmitted emissions from an Experimental Radio Service station shall not exceed the authorized bandwidth specified in the authorization. Each authorization will show, as the prefix to the emission classification, a figure specifying the necessary bandwidth. The application may request an authorized bandwidth that is greater than the necessary bandwidth for the emission to be used, if required for the experimental purpose. Necessary bandwidth and occupied bandwidth are defined and determined in accordance with § 2.1 and § 2.202 of this chapter.

**§ 5.107 Transmitter control requirements.**

Each licensee shall be responsible for maintaining control of the transmitter authorized under its station authorization, including the ability to terminate transmissions should interference occur.

(a) Conventional experimental radio stations. The licensee shall ensure that transmissions are in conformance with the operating characteristics prescribed in the station authorization and that the station is operated only by persons duly authorized by the licensee.

(b) Program experimental radio stations. The licensee shall ensure that transmissions are in conformance with the requirements in subpart E of this part and that the station is operated only by persons duly authorized by the licensee.

(c) Medical testing experimental radio stations. The licensee shall ensure that transmissions are in conformance with the requirements in subpart F of this part and that the station is operated only by persons duly authorized by the licensee.

(d) Compliance testing experimental radio stations. The licensee shall ensure that transmissions are in conformance with the requirements in subpart G of this part and that the station is operated only by persons duly authorized by the licensee.

(e) Broadcast experimental stations. Except where unattended operation is specifically permitted, the licensee of each station authorized under the provisions of this part shall designate a person or



persons to activate and control its transmitter. At the discretion of the station licensee, persons so designated may be employed for other duties and for operation of other transmitting stations if such other duties will not interfere with the proper operation of the station transmission systems.

**§ 5.109 Responsibility for antenna structure painting and lighting.**

Experimental Radio Service licensees may become responsible for maintaining the painting and lighting of any antenna structure they are authorized to use in accordance with part 17 of this chapter. See § 17.6 of this chapter.

**§5.110 Power limitations.**

(a) The transmitting radiated power for stations authorized under the Experimental Radio Service shall be limited to the minimum practical radiated power necessary for the success of the experiment.

(b) For broadcast experimental radio stations, the operating power shall not exceed by more than 5 percent the maximum power specified. Engineering standards have not been established for these stations. The efficiency factor for the last radio stage of transmitters employed will be subject to individual determination but shall be in general agreement with values normally employed for similar equipment operated within the frequency range authorized.

**§ 5.111 Limitations on use.**

(a) Stations may make only such transmissions as are necessary and directly related to the conduct of the licensee's stated program of experimentation and the related station instrument of authorization, and as governed by the provisions of the rules and regulations contained in this part. When transmitting, the licensee must use every precaution to ensure that it will not cause harmful interference to the services carried on by stations operating in accordance with the Table of Frequency Allocations of part 2 of this chapter.

(b) A licensee shall adhere to the program of experimentation as stated in its application or in the station instrument of authorization.

(c) The radiations of the transmitter shall be suspended immediately upon detection or notification of a deviation from the technical requirements of the station authorization until such deviation is corrected, except for transmissions concerning the immediate safety of life or property, in which case the transmissions shall be suspended as soon as the emergency is terminated.

**§ 5.115 Station identification.**

(a) *Conventional experimental radio licenses.* A licensee, unless specifically exempted by the terms of the station authorization, shall transmit its assigned call sign at the end of each complete transmission: Provided, however, that the transmission of the call sign at the end of each transmission is not required for projects requiring continuous, frequent, or extended use of the transmitting apparatus, if, during such periods and in connection with such use, the call sign is transmitted at least once every thirty minutes. The station identification shall be transmitted in clear voice or Morse code. All digital encoding and digital modulation shall be disabled during station identification.

(b) *Broadcast experimental licenses.* Each experimental broadcast station must transmit aural or visual announcements of its call letters and location at the beginning and end of each period of operation, and at least once every hour during operation.

(c) *Program experimental radio licenses.* Program experimental radio licenses shall comply with either paragraph (c)(1) or (c)(2):

(1) Stations may transmit identifying information sufficient to identify the license holder and the geographic coordinates of the station. This information shall be transmitted at the end of each complete transmission except that: this information is not required at the end of each transmission for projects requiring continuous, frequent, or extended use of the transmitting apparatus, if, during such periods and in connection with such use, the information is transmitted at least once every thirty minutes. The station identification shall be transmitted in clear voice or Morse code. All digital encoding and digital modulation shall be disabled during station identification; or

(2) Stations may post information sufficient to identify it on the Commission's program experimental registration website.

#### **§ 5.121 Station record requirements.**

(a) For conventional, program, medical testing, and compliance testing experimental radio stations, the current original authorization or a clearly legible photocopy for each station shall be retained as a permanent part of the station records, but need not be posted. Station records are required to be kept for a period of at least one year after license expiration.

(b) For Broadcast experimental radio stations, the license must be available at the transmitter site. The licensee of each experimental broadcast station must maintain and retain for a period of two years, adequate records of the operation, including:

(1) Information concerning the nature of the experimental operation and the periods in which it is being conducted; and

(2) Information concerning any specific data requested by the FCC.

#### **§ 5.123 Inspection of stations.**

All stations and records of stations in the authorized under this part shall be made available for inspection at any time while the station is in operation or shall be made available for inspection upon reasonable request of an authorized representative of the Commission.

#### **§ 5.125 Authorized points of communication.**

Generally, stations in the Experimental Radio Service may communicate only with other stations licensed in the Experimental Radio Service. Nevertheless, upon a satisfactory showing that the proposed communications are essential to the conduct of the research project, authority may be granted to communicate with stations in other services and U.S. Government stations.

### **Subpart D—Broadcast Experimental Licenses**

#### **§ 5.201 Applicable rules.**

In addition to the rules in this subpart, broadcast experimental station applicants and licensees shall follow the rules in subparts B and C of this part. In case of any conflict between the rules set forth in this subpart and the rules set forth in subparts B and C of this part, the rules in this subpart shall govern.

**§ 5.203 Experimental authorizations for licensed broadcast stations.**

(a) Licensees of broadcast stations (including TV Translator, LPTV, and TV Booster stations) may obtain experimental authorizations to conduct technical experimentation directed toward improvement of the technical phases of operation and service, and for such purposes may use a signal other than the normal broadcast program signal.

(b) Experimental authorizations for licensed broadcast stations may be requested by filing an informal application with the FCC in Washington, DC, describing the nature and purpose of the experimentation to be conducted, the nature of the experimental signal to be transmitted, and the proposed schedule of hours and duration of the experimentation. Experimental authorizations shall be posted with the station license.

(c) Experimental operations for licensed broadcast stations are subject to the following conditions:

(1) The authorized power of the station may not be exceeded more than 5 percent above the maximum power specified, except as specifically authorized for the experimental operations.

(2) Emissions outside the authorized bandwidth must be attenuated to the degree required for the particular type of station.

(3) The experimental operations may be conducted at any time the licensed station is authorized to operate, but the minimum required schedule of programming for the class and type of station must be met. AM stations also may conduct experimental operations during the experimental period (12 midnight local time to local sunrise) and at additional hours if permitted by the experimental authorization provided no interference is caused to other stations maintaining a regular operating schedule within such period(s).

(4) If a licensed station's experimental authorization permits the use of additional facilities or hours of operation for experimental purposes, no sponsored programs or commercial announcements may be transmitted during such experimentation.

(5) The licensee may transmit regularly scheduled programming concurrently with the experimental transmission if there is no significant impairment of service.

(6) No charges may be made, either directly or indirectly, for the experimentation; however, normal charges may be made for regularly scheduled programming transmitted concurrently with the experimental transmissions.

(d) The FCC may request a report of the research, experimentation and results at the conclusion of the experimental operation.

**§ 5.205 Licensing requirements, necessary showing.**

(a) An applicant for a new experimental broadcast station, change in facilities of any existing station, or modification of license is required to make a satisfactory showing of compliance with the general requirements of the Communications Act of 1934, as amended, as well as the following:

(1) That the applicant has a definite program of research and experimentation in the technical phases of broadcasting which indicates reasonable promise of substantial contribution to the developments of the broadcasting art.

(2) That upon the authorization of the proposed station the applicant can and will proceed immediately with its program of research and experimentation.

(3) That the transmission of signals by radio is essential to the proposed program of research and experimentation.

(4) That the program of research and experimentation will be conducted by qualified personnel.

(b) A license for an experimental broadcast station will be issued only on the condition that no objectionable interference to the regular program transmissions of broadcast stations will result from the transmissions of the experimental stations.

(c) *Special provision for broadcast experimental radio station applications.* For purposes of the definition of “experimental authorization” in Section II.A.6 of the Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process set forth in Appendix C to Part 1 of this chapter, an Broadcast Experimental Radio Station authorized under this Subpart shall be considered an “Experimental Broadcast Station authorized under Part 74 of the Commission’s Rules.”

#### **§ 5.207 Supplemental reports with application for renewal of license.**

A report shall be filed with each application for renewal of experimental broadcast station license which shall include a statement of each of the following:

(a) Number of hours operated.

(b) Full data on research and experimentation conducted including the types of transmitting and studio equipment used and their mode of operation.

(c) Data on expense of research and operation during the period covered.

(d) Power employed, field intensity measurements and visual and aural observations and the types of instruments and receivers utilized to determine the station service area and the efficiency of the respective types of transmissions.

(e) Estimated degree of public participation in reception and the results of observations as to the effectiveness of types of transmission.

(f) Conclusions, tentative and final.

(g) Program of further developments in broadcasting.

(h) All developments and major changes in equipment.

(i) Any other pertinent developments.

#### **§ 5.211 Frequency monitors and measurements.**

The licensee of a broadcast experimental radio station shall provide the necessary means for determining that the frequency of the station is within the allowed tolerance. The date and time of each frequency check, the frequency as measured, and a description or identification of the method employed shall be entered in the station log. Sufficient observations shall be made to insure that the assigned carrier frequency is maintained within the prescribed tolerance.

**§ 5.213 Time of operation.**

(a) Unless specified or restricted hours of operation are shown in the station authorization, broadcast experimental radio stations may be operated at any time and are not required to adhere to a regular schedule of operation.

(b) The FCC may limit or restrict the periods of station operation in the event interference is caused to other broadcast or non-broadcast stations.

(c) The FCC may require that a broadcast experimental radio station conduct such experiments as are deemed desirable and reasonable for development of the type of service for which the station was authorized.

**§ 5.215 Program service and charges.**

(a) The licensee of a broadcast experimental radio station may transmit program material only when necessary to the experiments being conducted, and no regular program service may be broadcast unless specifically authorized.

(b) The licensee of a broadcast experimental radio station may make no charges nor ask for any payment, directly or indirectly, for the production or transmission of any programming or information used for experimental broadcast purposes.

**§ 5.217 Rebroadcasts.**

(a) The term *rebroadcast* means reception by radio of the programs or other transmissions of a broadcast station, and the simultaneous or subsequent retransmission of such programs or transmissions by a broadcast station.

(1) As used in this section, the word “program” includes any complete program or part thereof.

(2) The transmission of a program from its point of origin to a broadcast station entirely by common carrier facilities, whether by wire line or radio, is not considered a rebroadcast.

(3) The broadcasting of a program relayed by a remote broadcast pickup station is not considered a rebroadcast.

(b) No licensee of a broadcast experimental radio station may retransmit the program of another U.S. broadcast station without the express authority of the originating station. A copy of the written consent of the licensee originating the program must be kept by the licensee of the broadcast experimental radio station retransmitting such program and made available to the FCC upon request.

**§ 5.219 Broadcasting emergency information.**

(a) In an emergency where normal communication facilities have been disrupted or destroyed by storms, floods or other disasters, a broadcast experimental radio station may be operated for the purpose of transmitting essential communications intended to alleviate distress, dispatch aid, assist in rescue operations, maintain order, or otherwise promote the safety of life and property. In the course of such operation, a station of any class may communicate with stations of other classes and in other services. However, such operation shall be conducted only on the frequency or frequencies for which the station is licensed and the used power shall not exceed the maximum authorized in the station license. When such operation involves the use of frequencies shared with other stations, licensees are expected to cooperate fully to avoid unnecessary or disruptive interference.

(b) Whenever such operation involves communications of a nature other than those for which the station is licensed to perform, the licensee shall, at the earliest practicable time, notify the FCC in Washington, DC of the nature of the emergency and the use to which the station is being put and shall subsequently notify the same offices when the emergency operation has been terminated.

(c) Emergency operation undertaken pursuant to the provisions of this section shall be discontinued as soon as substantially normal communications facilities have been restored. The Commission may at any time order discontinuance of such operation.

### **Subpart E—Program Experimental Radio Licenses**

#### **§5.301 Applicable rules.**

In addition to the rules in this subpart, program experimental applicants and licensees must follow the rules in subparts B and C of this part. In case of any conflict between the rules set forth in this subpart and the rules set forth in subparts B and C of this part, the rules in this subpart shall govern.

#### **§ 5.302 Eligibility.**

Program experimental licensees may be granted to the following entities: a college or university with a graduate research program in engineering that is accredited by the Accreditation Board for Engineering and Technology (ABET); a research laboratory; a hospital or health care institution; a manufacturer of radio frequency equipment; or a manufacturer that integrates radio frequency equipment into their end products, that meets the following requirements:

(b) The radiofrequency experimentation will be conducted in a defined geographic area under the applicant's control;

(c) The applicant has institutional processes to monitor and effectively manage a wide variety of research projects; and

(d) The applicant has demonstrated expertise in radio spectrum management or partner with another entity that has such expertise.

#### **§ 5.303 Frequencies.**

Licensees may operate in any frequency band, including those above 38.6 GHz, except for frequency bands exclusively allocated to the passive services (including the radio astronomy service) and any frequency or frequency band below 38.6 GHz that is listed in §15.205(a). Licensees shall avoid use of public safety frequencies pursuant to § 5.85(d).

#### **§ 5.304 Area of operations.**

Applications must specify, and the Commission will grant authorizations for, a geographic area that is inclusive of an institution's real-property facilities where the experimentation will be conducted and that is under the applicant's control. If an applicant wants to conduct experiments in more than one defined geographic area, it shall apply for a license for each location.

#### **§ 5.305 Program license not permitted.**

Experiments are not permitted under this subpart and a conventional experimental radio license is required when:

- (a) An environmental assessment must be filed with the Commission as required by § 5.63(a) of this part; or
- (b) An orbital debris mitigation plan must be filed with the Commission as required by § 5.64 of this part; or
- (c) The applicant requires non-disclosure of proprietary information as part of its justification for its license application; or
- (d) A product development or a market trial is to be conducted.

**§ 5.307 Responsible party.**

- (a) Each program experimental radio applicant must identify a single point of contact responsible for all experiments conducted under the license, including
  - (1) ensuring compliance with the notification requirements of § 5.309 of this part; and
  - (2) ensuring compliance with all applicable FCC rules.
- (b) The responsible individual will serve as the initial point of contact for all matters involving interference resolution and must have the authority to discontinue any and all experiments being conducted under the license, if necessary.
- (c) The license application must include the name of the responsible individual and contact information at which the person can be reached at any time of the day; this information will be listed on the license. Licensees are required to keep this information current.

**§ 5.308 Stop buzzer.**

A "Stop Buzzer" point of contact must be identified and available at all times during operation of each experiment conducted under a program license. A "stop buzzer" point of contact is a person who can address interference concerns and cease all transmissions immediately if interference occurs.

**§ 5.309 Notification requirements.**

- (a) At least ten calendar days prior to commencement of any experiment, program experimental licensees must provide the following information to the Commission's program experimental registration website:
  - (1) a narrative statement describing the experiment, including a description and explanation of measures taken to avoid causing harmful interference to any existing service licensee;
  - (2) contact information for the researcher-in-charge of the described experiment;
  - (3) contact information for a "stop buzzer"; and
  - (4) technical details including:
    - (i) the frequency or frequency bands;
    - (ii) the maximum equivalent isotropically radiated power (EIRP) or effective radiated power (ERP) under consideration;

- (iii) the emission designators to be used;
- (iv) a description of the geographic area in which the test will be conducted;
- (v) the number of units to be used; and
- (vi) a mitigation plan as required by § 5.311 of this part, if necessary.

(5) for program license experiments that may affect frequency bands used for the provision of commercial mobile services, emergency notifications, or public safety purposes, a list of those critical service licensees that are authorized to operate in the same bands and geographic area of the planned experiment.

(b) Experiments may commence without specific approval or authorization once ten calendar days have elapsed from the time of posting to the above website. During that ten-day period, the licensee of an authorized service may contact the program licensee to resolve any objections to an experiment. It is expected that parties will work in good faith to resolve such objections, including modifying experiments if necessary to reach an agreeable resolution. However, only the Commission has the authority to prevent a program licensee from beginning operations (or to order the cessation of operations). Therefore, if an incumbent licensee believes that it will suffer interference (or in fact, has experienced interference), it must bring its concerns to the Commission for action. In such an event, the Commission will evaluate the concerns, and determine whether a planned experiment should be permitted to commence as proposed (or be terminated, if the experiment has commenced).

(c) The Commission can prohibit or require modification of specific experiments under a program experimental radio license at any time without notice or hearing if in its discretion the need for such action arises.

(d) Within 30 days after completion of each experiment conducted under a program experimental radio license, the licensee shall file a narrative statement describing the results of the experiment, including any interference incidents and steps taken to resolve them. This narrative statement must be filed to the Commission's program experimental registration website and be associated with the materials described in paragraphs (a) and (b) of this section.

(e)(1) The Commission may ask licensees for additional information to resolve an interference incident, gain a better understanding of new technology development, or for auditing purposes to ensure that licensees are actually conducting experiments. Failure to comply with a Commission request for additional information under this section, or if, upon review of such information, the Commission determines that a licensee is not actually conducting experimentation, could result in forfeiture of the program license and loss of privilege of obtaining such a license in the future.

(2) All information submitted pursuant to this section will be treated as routinely available for publicly inspection, within the meaning of Section 0.459 of this title. Licensees are permitted to request that information requested by the Commission pursuant to this section be withheld from public inspection. The Commission will consider such requests pursuant to the procedures set forth in Section 0.459 of this chapter.

#### **§ 5.311 Additional requirements related to safety of the public.**

In addition to the notification requirements of § 5.309 of this part, for experiments that may affect frequency bands used for the provision of commercial mobile services, emergency notifications, or public safety purposes, the program experimental radio licensee shall, prior to commencing



transmissions, develop a specific plan to avoid interference to these bands. The plan must include provisions for:

- (a) providing notice to parties, including other Commission licensees that are authorized to operate in the same bands and geographic area as the planned experiment and, as appropriate, their end users;
- (b) rapid identification, and elimination, of any harm the experiment may cause; and
- (c) identifying an alternate means for accomplishing potentially-affected vital public safety functions during the experiment.

#### **§ 5.313 Innovation zones.**

- (a) An innovation zone is a specified geographic location with pre-authorized boundary conditions (such as frequency band, maximum power, etc.) created by the Commission on its own motion or in response to a request from the public. Innovation zones will be announced via public notice and posted on the Commission's program experimental registration website.
- (b) A program experimental licensee may conduct experiments in an innovation zone consistent with the specified boundary conditions without specific authorization from the Commission. All licensees operating under this authority must comply with the requirements and limitations set forth for program licensees in this part, including providing notification of its intended operations on the program experimental registration website prior to operation.

### **Subpart F—Medical Testing Experimental Radio Licenses**

#### **§5.401 Applicable rules.**

In addition to the rules in this subpart, medical testing experimental applicants and licensees must follow the rules in subparts B and C of this part. In case of any conflict between the rules set forth in this subpart and the rules set forth in subparts B and C of this part, the rules in this subpart shall govern.

#### **§5.402 Eligibility and usage.**

- (a) Eligibility for medical testing licenses is limited to health care facilities as defined in § 95.1103(b) of this chapter.
- (b) Medical testing experimental radio licenses are for testing in clinical trials medical devices that use RF wireless technology for diagnosis, treatment, or patient monitoring for the purposes of, but not limited to, assessing patient compatibility and usage issues, as well as operational, interference, and RF immunity issues. Medical testing is limited to testing equipment designed to comply with the rules in Part 15, Radio Frequency Devices; Part 18, Industrial, Scientific, and Medical Equipment; Part 95, Personal Radio Services Subpart H – Wireless Medical Telemetry Service; or Part 95, Subpart I – Medical Device Radiocommunication Service.

#### **§ 5.403 Frequencies.**

- (a) Licensees may operate in any frequency band, including those above 38.6 GHz, except for frequency bands exclusively allocated to the passive services (including the radio astronomy service). In addition, licensees may not use any frequency or frequency band below 38.6 GHz that is listed in § 15.205(a) of this chapter.

(b) Exception: Licensees may use frequencies listed in § 15.205(a) of this chapter if the device under test is designed to comply with all applicable service rules in Part 18, Industrial, Scientific, and Medical Equipment; Part 95, Personal Radio Services Subpart H – Wireless Medical Telemetry Service; or Part 95, Subpart I – Medical Device Radiocommunication Service.

#### **§5.404 Area of operation.**

Applications must specify, and the Commission will grant authorizations for, a geographic area that is inclusive of an institution's real-property facilities where the experimentation will be conducted and that is under the applicant's control. Applications also may specify, and the Commission will grant authorizations for, defined geographic areas beyond the institution's real-property facilities that will be included in clinical trials and monitored by the licensee. In general, operations will be permitted where the likelihood of harmful interference being caused to authorized services is minimal.

#### **§5.405 Yearly report.**

Medical testing licensees must file a yearly report detailing the activity that has been performed under the license. This report is to be filed electronically to the Commission's program experimental registration website and must, at a minimum, include:

- (a) A list of each test performed and the testing period; and
- (b) A Description of each test, including equipment tested; and
- (c) The results of the test including any interference incidents and their resolution.

#### **§ 5.406 Responsible party, "stop-buzzer," and notification requirements, and additional requirements related to safety of the public.**

(a) Medical testing licensees must identify a single point of contact responsible for all experiments conducted under the license and must also identify a "stop buzzer" point of contact for all experiments, consistent with Subpart E, §§ 5.307 and 5.308 of this part.

(b) Medical testing licensees must meet the notification and safety of the public requirements of Subpart E, §§ 5.309 and 5.311 of this part.

#### **§ 5.407 Exemption from station identification requirement.**

Medical testing experimental licensees are exempt from complying with the station identification requirements of § 5.115 of this part.

### **Subpart G—Compliance testing experimental radio licenses**

#### **§5.501 Applicable rules.**

In addition to the rules in this subpart, compliance testing experimental applicants and licensees must follow the rules in subparts B and C of this part. In case of any conflict between the rules set forth in this subpart and the rules set forth in subparts B and C of this part, the rules in this subpart shall govern.

**§ 5.502 Eligibility.**

Compliance testing experimental radio licenses may be granted to those testing laboratories recognized by the FCC as being competent to perform measurements of equipment for equipment authorization.

**§ 5.503 Scope of testing activities.**

The authority of a compliance testing experimental license is limited to only those testing activities necessary for product certification (including antenna calibration, test site validation, proficiency testing, and testing in an Open Area Test Site); *i.e.*, compliance testing experimental licensees are not authorized to conduct immunity testing.

**§ 5.504 Responsible party.**

Compliance testing licensees must identify a single point of contact responsible for all experiments conducted under the license, including ensuring compliance with all applicable FCC rules:

- (a) The responsible individual will serve as the initial point of contact for all matters involving interference resolution and must have the authority to discontinue any and all experiments being conducted under the license, if necessary.
- (b) The name of the responsible individual, along with contact information, such as a phone number and e-mail address at which he or she can be reached at any time of the day, must be identified on the license application, and this information will be listed on the license. Licensees are required to keep this information current.

**§ 5.505 Exemption from station identification requirement.**

Compliance testing experimental licensees are exempt from complying with the station identification requirements of § 5.115.

**Subpart H—Product Development and Market Trials****§ 5.601 Product development trials.**

Unless otherwise stated in the instrument of authorization, experimental radio licenses granted for the purpose of product development trials pursuant to § 5.3(k) of this part are subject to the following conditions:

- (a) All transmitting and/or receiving equipment used in the study shall be owned by the licensee.
- (b) The licensee is responsible for informing all participants in the experiment that the operation of the service or device is being conducted under an experimental authorization and is strictly temporary.
- (c) Marketing of devices (as defined in § 2.803) or provision of services for hire is not permitted.
- (d) The size and scope of the experiment are subject to such limitations as the Commission may establish on a case-by-case basis. If the Commission subsequently determines that a product development trial is not so limited, the trial shall be immediately terminated.

(e) Broadcast experimental station applicants and licensees must also meet the requirements of §5.205 of this part.

**§ 5.602 Market Trials.**

Unless otherwise stated in the instrument of authorization, experimental radio licenses granted for the purpose of market trials pursuant to § 5.3(k) of this part are subject to the following conditions:

(a) Marketing of devices (as defined in § 2.803) and provision of services for hire is permitted before the radio frequency device has been authorized by the Commission, subject to the ownership provisions in paragraph (d) and provided that the device will be operated in compliance with existing Commission rules, waivers of such rules that are in effect at the time of operation, or rules that have been adopted by the Commission but that have not yet become effective.

(b) The operation of all radio frequency devices that are included in a market trial must be authorized under this rule section, including those devices that are designed to operate under Parts 15, 18, or 95.

(c) If more than one entity will be responsible for conducting the same market trial *e.g.*, manufacturer and service provider, each entity will be authorized under a separate license. If more than one licensee is authorized, the licensees or the Commission shall designate one as the responsible party for the trial.

(d) All transmitting and/or receiving equipment used in the study shall be owned by the experimental licensees. Marketing of devices is only permitted as follows:

(1) The licensees may sell equipment to each other, *e.g.*, manufacturer to service provider,

(2) The licensees may lease equipment to trial participants for purposes of the study, and

(3) The number of devices to be marketed shall be the minimum quantity of devices necessary to conduct the market trial as approved by the Commission.

(e) Licensees are required to ensure that trial devices are either rendered inoperable or retrieved by them from trial participants at the conclusion of the trial. Licensees are required to notify trial participants in advance that operation of the trial device is subject to this condition.

(f) The size and scope of the experiment are subject to limitations as the Commission shall establish on a case-by-case basis. If the Commission subsequently determines that a market trial is not so limited, the trial shall be immediately terminated.

(g) Broadcast experimental station applicants and licensees must also meet the requirements of §5.205 of this part.

16. The Authority section of Part 22 continues to read as follows:

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

17. Section 22.165 is amended by removing and reserving paragraph (d)(2).