

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

(a) A change may be made in a licensed transmitter without specific authorization from the Commission provided that the change does not result in operations inconsistent with any term of the outstanding authorization for the station involved.

(b) Discrete changes in emission characteristics may be made without specific authorization from the Commission provided that the Commission is given written notification demonstrating that such changes will not exceed the maximum emissions envelope established in the existing authorization. Changes made pursuant to such notification that become a permanent part of the licensee's experimental program must be listed in the licensee's next application for renewal.

(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 as much as one second, or when such relocation involves a change in street address.

**§ 5.79 Transfer and assignment of station authorization.**

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 shall, after securing full information, decide that such a transfer is in the public interest and give its consent in writing. Requests for authority to transfer or assign a station authorization shall be submitted on the forms prescribed by § 5.59 of this part.

**§ 5.81 Discontinuance of station operation.**

In case of permanent discontinuance of operation of a fixed or land station in the Experimental Radio Service, or in case of permanent discontinuance of operation of all transmitter units listed in the license for a mobile station in the Experimental Radio Service, the licensee shall forward the station license to the Commission's Office of Engineering and Technology for cancellation.

**§ 5.83 Cancellation provisions.**

The applicant for a station in the Experimental Radio Services accepts the license with the express understanding: (a) that the authority to use the frequency or frequencies assigned is granted upon an experimental basis only and does not confer any right to conduct an activity of a continuing nature; and

(b) that said grant is subject to change or cancellation by the Commission at any time without 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.

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

(a) Stations operating in the Experimental Radio Service may be authorized to use any government or non-government 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.

(b) Each frequency or band of frequencies available for assignment to stations in the Experimental Radio Service is available on a shared basis only, and will not be assigned for the exclusive use of any one applicant, and such use may also be restricted to one or more specified geographical areas. Not more than one frequency in a band of frequencies will normally be assigned for the use of a single applicant

unless a showing is made demonstrating that need for the assignment of additional frequencies is essential to the proposed program of experimentation.

(c) Frequency assignments will be made only on the condition that harmful interference will not be caused to any station operating in accordance with the Table of Frequency Allocation of part 2 of this chapter.

(d) *Use of Public Safety Frequencies.* Applicants in the Experimental Radio Service must avoid use of public safety frequencies except when a compelling showing can be made that use of such frequencies is in the public interest. Public safety frequencies are identified in subpart B (Public Safety Radio Services) and subpart C (Special Emergency Radio Service) of part 90 of this Chapter. In addition, subpart S of part 90 of this chapter contains rules for the assignment of frequencies that may be used by Public Safety Radio Services in the 806–824 MHz and 851–869 MHz bands. If an experimental license to use public safety radio frequencies is granted, the authorization will be conditioned to require coordination between the experimental licensee and the appropriate frequency coordinator and/or all of the public safety licensees in its intended 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 are advised to give consideration, prior to filing applications, to the need to protect FCC monitoring stations from harmful interference. Geographical coordinates of such stations are listed in §0.121(b) of this chapter. Applications for stations (except mobile stations) that will produce on any frequency 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 referenced coordinates, may be examined to determine the extent of

possible interference. Depending on the theoretical field strength value or other ambient radio field signal levels at the indicated coordinates, a clause protecting the monitoring station may be added to the station authorization.

(2) In the event that calculated value of expected field strength exceeds 10 mV/m ( $-65.8$  dBW/m<sup>2</sup>) at the reference coordinates, or if there is any question whether field strength levels might exceed the threshold value, advance consultation with the FCC to discuss any protection necessary should be considered. Prospective applicants may communicate with the Technology Division, Compliance and Information Bureau, telephone (202) 418-1210, Federal Communications Commission, Washington, DC 20554.

(3) Advance consultation is suggested particularly for those applicants who have no reliable data that indicates whether the field strength or power flux density figure indicated would be exceeded by their proposed radio facilities (except mobile stations). In such instances, the following is a suggested guide for determining whether an applicant should coordinate:

(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(c) of this Chapter and also meets the criteria outlined in paragraphs (d) (2) and (3) of this section.

(5) The Commission will not screen applications to determine whether advance consultation has taken place.

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However, applicants are advised that such consultation can avoid objections from the Commission.

### § 5.87 Frequencies for field strength surveys or equipment demonstrations.

(a) Authorizations issued under §§ 5.3 (e) and (f) of this part will normally not have specific frequencies designated in a station license. Prior to the commencement of a survey or demonstration, the licensee will request a specific frequency assignment and submit the following information:

- (1) Time, date and duration of survey.
- (2) Frequency to be used.
- (3) Location of transmitter and geographical area to be covered.
- (4) Purpose of survey.
- (5) Method and equipment to be used.
- (6) Names and addresses of persons for whom the survey is conducted.

(b) [Reserved]

### § 5.89 School and student authorizations.

The Commission may issue an authorization to schools or students for the purpose of presenting experiments or technical demonstrations for school or school approved projects that require the use of radio for a limited period of time. Such authorizations may be granted at the discretion of the Commission.

(a) An application for a school or student authorization may be filed in letter form and must comply with the provisions of § 5.63, of this part except where specified below. The application must be accompanied by a signed statement from a member of faculty of the school, on appropriate letterhead, indicating the person under whose general supervision the project will be conducted. In the case of student authorizations, the letter must state that the project has the approval of the school.

(b) Frequencies in the following bands are available for assignment in authorizations issued under this section:

- 27.23–27.28 MHz.
- 460–461 MHz.
- 462.525–467.475 MHz.
- 2402–2483.5 MHz.
- 10.00–10.50 GHz.

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(c) Operations under this section are limited to 4 watts equivalent isotropically radiated power (EIRP). The Commission may authorize a greater power if a satisfactory showing is made that such greater power is necessary and that appropriate measures will be taken to prevent interference.

(d) The frequency of operation must be measured or checked prior to each time of operation.

(e) Subject to the provisions of (b), (c) and (d), the provisions in subpart C of this part are waived insofar as such provisions require a station authorized under this section to observe the technical and operating restrictions set forth therein.

(f) The licensee holding an authorization issued under this section shall maintain a record of operation containing the following information:

- (1) A brief description of the experimentation being conducted.
- (2) The date and time of each period of operation.

(3) The frequency of operation as measured or checked at the beginning of each period of operation.

(g) The record of operation shall be retained for one month after the termination of the authorization.

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### § 5.91 Notification of 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 a station authorization other than mobile, temporary base, temporary fixed, Personal Radio, Civil Air Patrol, or Amateur Radio, seeking a station license for a new station, or a construction permit to construct a new station or to modify an existing station license in a manner that would change either the frequency, power, antenna height or directivity, or location of such a station within the area bounded by 39 deg. 15' N on the north, 78 deg. 30' W on the east, 37 deg. 30' N on the south and 80 deg. 30'