## § 87.145

- (b) Each station must be provided with a control point at the location of the transmitting equipment, unless otherwise specifically authorized. Except for aeronautical enroute stations governed by paragraph (e) of this section, a control point is the location at which the radio operator is stationed. It is the position at which the transmitter(s) can immediately be turned off.
- (c) Applicants for additional control points at aeronautical advisory (unicom) stations must specify the location of each proposed control point.
- (d) Except for aeronautical enroute stations governed by paragraph (f) of this section, the control point must have the following facilities installed:
- (1) A device that indicates when the transmitter is radiating or when the transmitter control circuits have been switched on. This requirement does not apply to aircraft stations;
- (2) Aurally monitoring of all transmissions originating at dispatch points:
- (3) A way to disconnect dispatch points from the transmitter; and
  - (4) A way to turn off the transmitter.
- (e) A dispatch point is an operating position subordinate to the control point. Dispatch points may be installed without authorization from the Commission, and dispatch point operators are not required to be licensed.
- (f) In the aeronautical enroute service, the control point for an automatically controlled enroute station is the computer facility which controls the transmitter. Any computer controlled transmitter must be equipped to automatically shut down after 3 minutes of continuous transmission of an unmodulated carrier.

## §87.145 Acceptability of transmitters for licensing.

(a) Each transmitter must be certificated for use in these services, except as listed in paragraph (c) of this section. However, aircraft stations which transmit on maritime mobile frequencies must use transmitters certificated for use in ship stations in accordance with part 80 of this chapter. Certification under part 80 is not required for aircraft earth stations transmitting on maritime mobile-satellite fre-

quencies. Such stations must be certificated under part 87.

- (b) Some radio equipment installed on air carrier aircraft must meet the requirements of the Commission and the requirements of the FAA. The FAA requirements may be obtained from the FAA, Aircraft Maintenance Division, 800 Independence Ave., SW., Washington, DC 20591.
- (c) The equipment listed below is exempted from certification. The operation of transmitters which have not been certificated must not result in harmful interference due to the failure of those transmitters to comply with technical standards of this subpart.
- (1) Flight test station transmitters for limited periods where justified.
- (2) U.S. Government transmitters furnished in the performance of a U.S. Government contract if the use of certificated equipment would increase the cost of the contract or if the transmitter will be incorporated in the finished product. However, such equipment must meet the technical standards contained in this subpart.
- (3) ELTs verified in accordance with \$87.147(e).
- (4) Signal generators when used as radionavigation land test stations (MTF).
- (d) Aircraft earth stations must correct their transmit frequencies for Doppler effect relative to the satellite. The transmitted signal may not deviate more than 335 Hz from the desired transmit frequency. (This is a root sum square error which assumes zero error for the received ground earth station signal and includes the AES transmit/ receive frequency reference error and the AES automatic frequency control residual errors.) The applicant must attest that the equipment provides adequate Doppler effect compensation and where applicable, that measurements have been made that demonstrate compliance. Submission of data demonstrating compliance is not required unless requested by the Commission.

[63 FR 36607, July 7, 1998, as amended at 69 FR 32881, June 14, 2004]

## §87.147 Authorization of equipment.

(a) Certification may be requested by following the procedures in part 2 of this chapter. Aircraft transmitters