§ 78.75

(e) When a station in this service has an antenna structure which is required to be illuminated, appropriate entries shall be made as follows:

(1) The time the tower lights are turned on and off each day, if manually controlled.

(2) The time the daily check of proper operation of the tower lights was made, if an automatic alarm system is not employed.

(3) In the event of any observed or otherwise known failure of a tower light:
   
   (i) Nature of such failure.
   
   (ii) Date and time the failure was observed or otherwise noted.

   (iii) Date, time, and nature of the adjustments, repairs, or replacements made.

(iv) Identification of Flight Service Station (Federal Aviation Administration) notified of the failure of any code or rotating beacon light not corrected within 30 minutes, and the date and time such notice was given.

(v) Date and time notice was given to the Flight Service Station (Federal Aviation Administration) that the required illumination was resumed.

(f) For all stations, station record entries shall be made in an orderly and legible manner by the person or persons competent to do so, having actual knowledge of the facts required, who shall sign the station record when starting duty and again when going off duty.

(g) For all stations, no station record or portion thereof shall be erased, obliterated, or willfully destroyed within the period of retention required by rule. Any necessary correction may be made only by the person who made the original entry who shall strike out the erroneous portion, initial the correction made, and show the date the correction was made.

(h) For all stations, station records shall be retained for a period of not less than 2 years. The Commission reserves the right to order retention of station records for a longer period of time. In cases where the licensee or permittee has notice of any claim or complaint, the station record shall be retained until such claim or complaint has been fully satisfied or until the same has been barred by statute limiting the time for filing of suits upon such claims.

§ 78.75 Equal employment opportunities.

See Subpart E, Part 76 of this chapter.

§ 78.101 Power limitations.

(a) On any authorized frequency, the average power delivered to an antenna shall be the minimum amount of power necessary to carry out the communications desired. In no event shall the average transmitter power or equivalent isotropically radiated power (EIRP) exceed the values specified below.

<table>
<thead>
<tr>
<th>Frequency band (MHz)</th>
<th>Maximum allowable transmitter power—mobile (W)</th>
<th>Maximum allowable EIRP 1, 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.025 to 2.110</td>
<td>20.0</td>
<td>+35</td>
</tr>
<tr>
<td>6.425 to 6.525</td>
<td>20.0</td>
<td>+35</td>
</tr>
<tr>
<td>6.875 to 7.125</td>
<td>1.5</td>
<td>+55</td>
</tr>
<tr>
<td>12.700 to 13.250</td>
<td>12.700 to 13.250</td>
<td></td>
</tr>
<tr>
<td>17.700 to 18.600</td>
<td>17.700 to 18.600</td>
<td></td>
</tr>
<tr>
<td>18.600 to 18.800 1</td>
<td>18.600 to 18.800</td>
<td></td>
</tr>
<tr>
<td>18.800 to 19.700</td>
<td>18.800 to 19.700</td>
<td></td>
</tr>
</tbody>
</table>

1 The power delivered to the antenna is limited to –3 dBW.
§ 78.103 Emissions and emission limitations.

(a) A CARS station may be authorized to employ any type of emission, for which there are technical standards incorporated in Subpart D of this part, suitable for the simultaneous transmission of visual and aural television signals.

(b) Any emission appearing on a frequency outside of the channel authorized for a transmitter shall be attenuated below the power of the emission in accordance with the following schedule:

(1) For stations using FM or double sideband AM transmission:
   (i) On any frequency above the upper channel limit or below the lower channel limit by between zero and 50 percent of the authorized channel width: At least 25 decibels below the mean power of the emission;
   (ii) On any frequency above the upper channel limit or below the lower channel limit by more than 50 percent and up to 150 percent of the authorized channel width: At least 35 decibels below the mean power of the emission;
   (iii) On any frequency above the upper channel limit or below the lower channel limit by more than 150 percent of the authorized channel width: At least 43 + 10 log\(_{10}\) (power in watts) decibels below the mean power of the emission.

(2) For CARS stations using vestigial sideband AM transmission:
   (i) On any frequency removed from the assigned (center) frequency by more than 50% up to and including 100% of the authorized bandwidth: At least 25 dB;
   (ii) On any frequency removed from the assigned (center) frequency by more than 100% up to and including 250% of the authorized bandwidth: At least 35 dB;
   (iii) On any frequency removed from the assigned (center) frequency by more than 250% of the authorized bandwidth: At least 43 + 10 log\(_{10}\) (mean output power in watts) dB, or 80 dB, whichever is the lesser attenuation.

(3) Amplitude Modulation:
   (i) In any 1 MHz band, the center frequency of which is removed from the assigned frequency by more than 50% up to and including 250% of the authorized bandwidth: As specified by the following equation but in no event less than 11 dB.
   \[ A = 11 + 0.4 (P - 50) + 10 \log_{10} B \]
   where:
   - \(A\) = Attenuation (in dB) below the mean output power level.
   - \(P\) = Percent removed from the carrier frequency.
   - \(B\) = Authorized bandwidth in MHz.

   [Attenuation greater than 56 decibels is not required.]

   (ii) In any 4 kHz band, the center frequency of which is removed from the assigned frequency by more than 250% of the authorized bandwidth: At least 43 = 10 log\(_{10}\) (mean output power in watts) dB, or 80 dB, whichever is the lesser attenuation.

(c) For operation in the 17.7.7–19.7 GHz band:
   The mean power of any emission shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:
   (1) When using frequency modulation:
      (i) On any frequency removed from the assigned (center) frequency by more than 50% up to and including 100% of the authorized bandwidth: At least 25 dB;
      (ii) On any frequency removed from the assigned (center) frequency by more than 100% up to and including 250% of the authorized bandwidth: At least 35 dB;
      (iii) On any frequency removed from the assigned (center) frequency by more than 250% of the authorized bandwidth: At least 43 = 10 log\(_{10}\) (mean output power in watts) dB, or 80 dB, whichever is the lesser attenuation.

[Attenuation greater than 56 decibels is not required.]