§ 74.795 Digital low power TV and TV translator transmission system facilities.

(a) A digital low power TV or TV translator station shall operate with a transmitter that is either certificated for licensing based on the following provisions or has been modified for digital operation pursuant to § 74.796.

(b) The following requirements must be met before digital low power TV and TV translator transmitter will be certificated by the FCC:

(1) The transmitter shall be designed to produce digital television signals that can be satisfactorily viewed on consumer receiving equipment based on the digital broadcast television transmission standard in § 73.682(d) of this chapter;

(2) Emissions on frequencies outside the authorized channel, measured at the output terminals of the transmitter (including any filters that may be employed), shall meet the requirements of § 74.794, as applicable;

(3) The transmitter shall be equipped to display the digital power output (*i.e.*, average power over a 6 MHz channel) and shall be designed to prevent the power output from exceeding the maximum rated power output under any condition;

(4) When subjected to variations in ambient temperature between 0 and 40 degrees Centigrade and variations in power main voltage between 85% and 115% of the rated power supply voltage, the frequency stability of the local oscillator in the RF channel upconverter shall be maintained within 10 kHz of the nominal value; and

(5) The transmitter shall be equipped with suitable meters and jacks so that appropriate voltage and current measurements may be made while the transmitter is in operation.

(c) The following additional requirements apply to digital heterodyne translators:

(1) The maximum rated power output (digital average power over a 6 MHz channel) shall not exceed 30 watts for transmitters operating on channels 14–69 and 3 watts for transmitters operating on channels 2–13; and

(2) The transmitter shall contain circuits which will maintain the digital average power output constant within 1 dB when the strength of the input signal is varied over a range of 30 dB.

(d) Certification will be granted only upon a satisfactory showing that the transmitter is capable of meeting the requirements of paragraph (b) of this section, pursuant to the procedures described in § 74.750(e).

[69 FR 69336, Nov. 29, 2004]

§ 74.796 Modification of digital transmission systems and analog transmission systems for digital operation.

(a) The provisions of § 74.751 shall apply to the modification of digital low power TV and TV translator transmission systems and the modification of existing analog transmission systems for digital operation.

(b) The following additional provisions shall apply to the modification of existing analog transmissions systems for digital operation, including installation of manufacturers' certificated equipment (''field modification kits'') and custom modifications.

(1) The modifications and related performance-testing shall be undertaken by a person or persons qualified to perform such work.

(2) The final amplifier stage of an analog transmitter modified for digital operation shall not have an ''average digital power'' output greater than 25 percent of its previous NTSC peak sync power output, unless the amplifier has been specifically refitted or replaced to operate at a higher power.

(3) Analog heterodyne translators, when modified for digital operation, will produce a power output (digital average power over the 6 MHz channel) not exceeding 30 watts for transmitters operating on channels 14–69 and 3 watts for transmitters operating on channels 2–13.

(4) After completion of the modification, suitable tests and measurements shall be made to demonstrate compliance with the applicable requirements in this section including those in § 74.795. Upon installation of a field modification kit, the transmitter shall be performance-tested in accordance with the manufacturer's instructions.

(5) The station licensee shall notify the Commission upon completion of the transmitter modifications. In the