



TRC-59
Issue 1
May 20, 1994

Spectrum Management

Telecommunications Regulation Circular

Technical Requirements for the Certification of Scrambled TV Systems

Release date: May 1, 1981

Introduction

Under Section 5 (d) of the *Radio Act*, the Department intends to introduce minimum technical requirements for scrambled TV systems for use by broadcasting transmitting undertakings for which a Technical Construction and Operating Certificate (TC&OC) is required. This TRC is intended to inform manufacturers and broadcasters, as well as the general public, of the technical requirements and procedures required for the certification of scrambled TV systems. The purpose is to ensure that the transmission and reception of the scrambled TV signal is compatible with the M/NTSC system specifications and to prevent interference to the radio environment. Additional technical requirements for the descrambler devices are contained in TRC-60 entitled: *Technical Requirements for Radio Apparatus Capable of Receiving Television Broadcasting*.

Technical Requirements

Systems capable of transmitting scrambled television signals shall conform to the following technical requirements:

Coding Methods

The method of encoding and decoding is not standardized. However, the encoding and decoding process shall not perceptibly degrade the quality of the signal provided at the output of the decoding device and must be compatible with the M/NTSC system specifications as defined in the Department's Broadcast Specification No. 12, Issue 2, entitled *Basic Television Transmission Standards*.

Radiated Spectral Energy

The use of the scrambler shall not increase the spectral energy of the transmitted signal beyond the limits established in the Department's Radio Standards Specifications 151, 154 and 157.

TV Channel Frequencies

The use of the TV transmission, when operating in either the scrambled or non-scrambled mode, shall not alter the frequency of either the visual or aural carriers as defined in the M/NTSC system specifications.

Technical Acceptance Procedure

Applicants proposing the use of scrambled transmissions for TV broadcasting stations for use in Canada shall, in conjunction with manufacturers or suppliers of such systems, satisfy the Department, at their own expense, that the apparatus actually meets the requirements contained in this circular, as a condition of the issue of a TC&OC. The Department reserves the right to request additional information, or a production model of the apparatus, to perform measurements in its own laboratory. All information furnished in support of a submission will be retained by the Department and will be treated as company confidential.

Notwithstanding the fact that a particular apparatus meets these requirements, the Department reserves the right to require that adjustments be made to that apparatus whenever it causes interference within the meaning of the *Radio Act*.

Applications for the use of scrambled TV broadcasting systems may be sent to the Director, Broadcasting Regulation Branch, Telecommunication Regulatory Service, Industry Canada, 300 Slater Street, Ottawa, Ontario K1A 0C8.

Comments on these technical requirements would be welcomed by the Department.

ORIGINAL SIGNED BY
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