## **Federal Communications Commission**

PROCEDURES AND PROCESS— UNACCEPTABLE INTERFERENCE

- § 90.672 Unacceptable interference to non-cellular 800 MHz licensees from 800 MHz cellular systems or part 22 Cellular Radiotelephone systems, and within the 900 MHz Business/ Industrial Land Transportation Pool.
- (a) Definition. Except as provided in 47 CFR 90.617(k), unacceptable interference to non-cellular licensees in the 800 MHz band from 800 MHz cellular systems or part 22 of this chapter, Cellular Radiotelephone systems and within the 900 MHz Business/Industrial Land Transportation (B/ILT) Pool will be deemed to occur when the below conditions are met:
- (1) A transceiver at a site at which interference is encountered:
- (i) Is in good repair and operating condition, and is receiving:
- (A) A median desired signal strength of  $-104~\mathrm{dBm}$  or higher if operating in the 800 MHz band, or a median desired signal strength of  $-88~\mathrm{dBm}$  if operating in the 900 MHz B/ILT Pool, as measured at the R.F. input of the receiver of a mobile unit; or
- (B) A median desired signal strength of -101 dBm or higher if operating in the 800 MHz band, or a median desired signal strength of -85 dBm if operating in the 900 MHz B/ILT Pool, as measured at the R.F. input of the receiver of a portable *i.e.*, hand-held unit; and either
  - (ii) Is a voice transceiver:
- (A) With manufacturer published performance specifications for the receiver section of the transceiver equal to, or exceeding, the minimum standards set out in paragraph (b) of this section, and;
- (B) Receiving an undesired signal or signals which cause the measured Carrier to Noise plus Interference (C/(I+N)) ratio of the receiver section of said transceiver to be less than 20 dB if operating in the 800 MHz band, or less than 17 dB if operating in the 900 MHz B/ILT Pool, or;
- (iii) Is a non-voice transceiver receiving an undesired signal or signals which cause the measured bit error rate (BER) (or some comparable specification) of the receiver section of said transceiver to be more than the value

reasonably designated by the manufacturer.

- (2) Provided, however, that if the receiver section of the mobile or portable voice transceiver does not conform to the standards set out in paragraph (b) of this section, then that transceiver shall be deemed subject to unacceptable interference only at sites where the median desired signal satisfies the applicable threshold measured signal power in paragraphs (a)(1)(i) of this section after an upward adjustment to account for the difference in receiver section performance. The upward adjustment shall be equal to the increase in the desired signal required to restore the receiver section of the subject transceiver to the 20 dB C/(I+N) ratio of paragraph (a)(1)(ii)(B) of this section. The adjusted threshold levels shall then define the minimum measured signal power(s) in lieu of paragraphs (a)(1)(i) of this section at which the licensee using such non-compliant transceiver is entitled to interference protection.
- (b) Minimum Receiver Requirements. Voice transceivers capable of operating in the 806-824 MHz portion of the 800 MHz band, or in the 900 MHz Business/Industrial Land Transportation Pool, shall have the following minimum performance specifications in order for the system in which such transceivers are used to claim entitlement to full protection against unacceptable interference. (See paragraph (a)(2) of this section.)
- (1) Voice units intended for mobile use: 75 dB intermodulation rejection ratio; 75 dB adjacent channel rejection ratio; -116 dBm reference sensitivity.
- (2) Voice units intended for portable use: 70 dB intermodulation rejection ratio; 70 dB adjacent channel rejection ratio; -116 dBm reference sensitivity.
- (3) Voice units intended for mobile or portable use in the 900 MHz Business/Industrial Land Transportation Pool: 60 dB intermodulation rejection ratio; 60 dB adjacent channel rejection ratio; -116 dBm reference sensitivity.

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