FCCadopts technical amendment to its rules designed
to improve the quality of AM broadcast service
(MH Docket 88-376)

As part of its continuing effort to improve the quality of AM
broadcast service, the Commission today adopted the National Radio Systems
Committee (NRSC) emission limitation known as NRSC-2 as a new AM broadcast
standard, beginning June 30, 1990. To facilitate the implementation of this
new standard, the Commission also announced that until June 30, 1994,
stations adhering to NRSC-1 audio pre-emphasis will be presumed to comply
with NRSC-2, in the absence of specific information to the contrary.

Currently, AM stations are permitted to transmit a radio frequency sig-
nal with a bandwidth of up to 30 kHz. However, the majority of consumer
receivers are designed with a much narrower receiver bandwidth so as to
reduce the effects of interference from adjacent channel stations. This
severely reduces the audio fidelity of AM radios. In an attempt to overcome
this fidelity limitation, many broadcasters pre-emphasize, or "boost", the
higher audio frequencies which exacerbates adjacent channel interference.

The NRSC developed two standards designed to reduce adjacent channel
interference. They are: the NRSC-1 audio standard which establishes limits on
program audio frequency response that will often, but not always, reduce
adjacent channel interference; and the NRSC-2 emission limitation, which
limits the RF bandwidth of emitted signals that actually cause interference.

Although many commenters urged adoption of the audio processing stan-
dard, the Commission concluded that meaningful adjacent channel interference
improvements could best be obtained by restricting emissions. The FCC
offered the following bases for this conclusion: 1) used alone, the NRSC-1
audio standard will not be effective in alleviating interference produced
by overmodulation or transmission system anomalies; 2) the characteristics
of the audio response intended to be produced by the NRSC-1 filter can be
readily circumvented or abused by adjustments made to other audio processing
equipment; and 3) to the extent NRSC-1 specifies a particular pre-emphasis
of audio signals below 10 kHz, it restricts the flexibility of licensees in
adjusting their audio processing equipment.

Until June 30, 1994, stations employing the NRSC-1 will be presumed to
comply with NRSC-2 in the absence of specific information to the contrary
and will not be required to make periodic emission measurements as required
by FCC rules. However, the presumption of compliance with the emission
limits may be rebutted by technical evidence of noncompliance.
If the Commission receives interference complaints containing such evidence, it will require licensees to make their own measurements and take appropriate corrective action. Licensees of existing stations who wish to operate pursuant to this presumptive compliance alternative must adhere to the NRSC-1 standard by June 30, 1990. Licensees of new AM stations who wish to operate pursuant to this alternative must comply with the NRSC-1 standard upon commencement of operation.

Action by the Commission April 12, 1989, by Report and Order (FCC 89-
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