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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Technical specifications for open monitoring of MW and SW AM
broadcasting quality
(English Translation)**

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Foreword

In order to standardize the open-circuit monitoring of medium and short wave AM broadcasting quality, and to promote the improvement and effective coverage of medium and short wave AM broadcasting quality, this standard is specially formulated.

Open-circuit monitoring of medium and short wave AM broadcast quality refers to the use of dedicated reception in a specific frequency broadcast service area or a specific reception location.

The device receives airwave signals, performs objective measurement and subjective evaluation of a certain broadcast frequency in real time, and accurately reflects the signal quality, Radio characteristics and transmitter operating conditions. There are three main types of broadcast quality monitoring projects.

1 Monitoring the quality of broadcast sound

Monitoring of broadcast sound quality includes monitoring of noise, distortion, and amplitude-frequency characteristics. For distortion, amplitude frequency characteristics, Monitoring of technical indicators such as noise, crosstalk, and alternating sound. This standard mainly refers to GY/T 179-2001 "Operation and Maintenance Regulations for Radio and Television Transmitters." Appendix F of Cheng "carries out subjective evaluation.

2 Monitoring of broadcast transmission characteristics

The monitoring of broadcast transmission characteristics includes the monitoring of frequency deviation, amplitude modulation, carrier level, and technical specifications of transmission bandwidth.

Refer to GB/T 12572-1990 "Transmitter Frequency Tolerance" and GB/T 12046-1989 "Identification of Radio Transmission and Determination of Necessary Bandwidth" to monitor.

3 Monitoring of the operating status of broadcast transmitters

The monitoring of the operating status of broadcast transmitters includes monitoring of technical indicators such as out-of-broadcasting (including miscasting, aerial broadcasting, less broadcasting, late broadcasting, and multicasting) and poor broadcasting for testing, this standard mainly refers to Appendix A of GY/T 179-2001 "Operation and Maintenance Regulations for Radio and Television Transmission Stations" for monitoring.

Appendix A of this standard is an informative appendix.

This standard is under the jurisdiction of the National Radio and Television Standardization Technical Committee.

This standard was drafted. Radio and Television Monitoring Center of the State Administration of Radio, Film and Television.

3.6 Frequency deflection

The center frequency of the band occupied by the transmitter deviates from the assigned frequency, or the characteristic frequency of the transmission deviates from the reference frequency, expressed in hertz (Hz) Show.

Amplitude modulation ratio Modulated carrier wave with a single frequency audio signal, the difference between the maximum or minimum instantaneous amplitude and the carrier amplitude during amplitude modulation the value, expressed as a percentage, to the carrier amplitude during AM.

Transmitted bandwidth the frequency band occupied by the medium and short wave AM broadcast transmission signals in the broadcast band.

Carrier level

In the absence of modulation, the arithmetic mean value of the power supplied by the transmitter to the antenna during a radio frequency period, compared to the standard power reference value.

3.10

Stop dead radio

No carrier is transmitted due to various factors within the specified time of the broadcast operation chart; although there is a carrier but no modulation; the broadcast program is late or less Broadcast, program misplay or its effect is equivalent to program interruption. Including wrong broadcast, air broadcast, late broadcast, less broadcast.

3.10.1

Nomodulated radio

During the specified broadcast time, due to the failure of broadcasting technology equipment or improper human operation, no modulation signal appears, but the carrier wave is normal.

Anomalies, also known as carrier without modulation.

3.10.2

Wrong radio

During the transmission and broadcast of the broadcast program, the broadcast program was not broadcasted in accordance with the regulations of the broadcast station.

3.10.3

Delayed radio

Due to the failure of the broadcasting technology equipment or improper human operation, the broadcasting program was broadcast later than the time specified in the broadcasting operation chart.

3.10.4

Not enough of radio

Due to the failure of the broadcasting technology equipment or improper human operation, the broadcasting program was stopped in advance within the time specified in the broadcast operation chart.

Out.

3.11

Bad broadcasting accident any failure of the broadcasting technology equipment or improper human operation and use causes the listening quality to decline, but it has not reached the limit of stopping broadcasting.

3.12

Multicastexcessive radio it means that the actual broadcast time of the transmitter exceeds

the program time specified in the operation chart.

3.13

Amplitude-frequency characteristic when the transmitter is modulated with an audio signal of constant amplitude, its modulation amplitude varies with different frequencies.

3.14

Harmonic distortion

The transmitter's single-tone AM envelope signal is distorted.

3.15

Cross-talk

In the normal broadcast program, due to equipment reasons or human operation improper use, other signals are inserted.

3.16

Broadcasting operation situation Radio program production, broadcasting, transmission and transmission The entire system is implemented in accordance with the specified radio program operation map and related technical standards result.

3.17

Overall rating

Comprehensively consider factors such as signal strength, interference, and noise to be received, and subjectively evaluate the listening effect and quality. Generally expressed in five points.

4 Acronyms

The following abbreviations apply to this standard.

A/D (Analog to Digital) conversion from analog to digital AM (Amplitude Modulation) CW (Carrier Wave) FAX (Fastness Avigation) FFT (Fast Fourier Transform) FM (Frequency Modulation) FSK (Frequency-Shift Keying) ISB (Independent Side Band) LSB (Low Side Band) MW (Medium Wave) RTTY (Radio Teletype) SW (Short Wave) USB (Up Side Band)

5 Medium and short-wave broadcasting frequency range

The range of the medium and short-wave broadcasting bands is based on the and the "National Radio Frequency Allocation Regulations".

See Appendix A for the medium and short-wave broadcasting frequency range.