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

HJ 707-2014

**Technical specifications for environmental noise monitoring
structure-borne indoor noise from associated facilities
(English Translation)**

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Table of Contents

Preface

1. Scope .1

2 Normative references

3 Terms and definitions

4 Measuring instruments and measurement conditions .2

5 On-site survey and monitoring

6 .4 background noise correction

7 .4 monitoring results evaluation

8 Quality Assurance and Quality Control .4

Appendix A (informative) fixed structure-borne noise monitoring equipment recorded in Table

Relationship between Annex B (informative) indoor low-frequency noise and structure-borne noise fixture determination

Foreword

To implement the "People's Republic of China Environmental Protection Law" and "People's Republic of China Environmental Noise Pollution Prevention Law" to regulate "work Industrial enterprises of environmental noise emission standard plant boundary "(GB 12348) and" social life of environmental noise emission standards "(GB 22337) in Junction Configuration monitoring the spread of fixed equipment noise, the development of this standard.

This standard specifies the structure-borne noise monitoring fixture indoor equipment, field survey methods, monitoring methods, monitoring data Evaluation and quality assurance and quality control and other technical requirements.

The Standard Appendix A, Appendix B is an informative annex.

This standard is developed by the Ministry of Environmental Protection Science, Technology organization.

This standard drafting units. China National Environmental Monitoring Center, Wuhan Environmental Monitoring Center.

This standard MEP October 30, 2014 for approval.

This standard since January 1, 2015 implementation.

The standard explanation by the Ministry of Environmental Protection.

Environmental noise monitoring technical specifications structure-borne noise interior fixtures

1 Scope

This standard specifies the structure-borne noise monitoring fixture indoor equipment, field survey methods, monitoring methods, monitoring data Evaluation and quality assurance and quality control and other technical requirements.

This standard applies to "boundary of industrial enterprises of environmental noise emission standards" (GB 12348) and "social life of environmental noise emission standards Quasi "(GB 22337) monitoring structure-borne noise predetermined fixed equipment caused interior noise. Other fixed structure-borne equipment Interior noise measurements can be performed with reference to the present method.

2 Normative references

The standard content of the following documents cited in the articles. Where undated references, the valid version applies to this standard.

GB 3785.1 electric acoustic sound level meters - Part 1. Specification GB 12348 industrial enterprises of environmental noise emission standard plant boundary GB 22337 social life of environmental noise emission standards GB/T 3241 octave and fractional octave filters GB/T 15173 acoustic calibrator HJ 706-2014 environmental noise monitoring noise measurement value correction Technical Specifications

3 Terms and Definitions

The following terms and definitions apply to this standard.

Noise-sensitive buildings noise-sensitive buildings Refers to hospitals, schools, institutions, research institutes, such as the need to keep quiet residential building.

Structure-borne noise indoor fixtures Structure-borne indoor Noise From Associated Facilities Means the fixed spread to the noise emissions from equipment noise sensitive building interior inspired interior noise through the building structure.

Affected room The influenced room Structure-borne noise by fixed indoor equipment room.

Suspicious sound source device Suspicious sound source equipment Noise emission and noise propagation through the structure to affect the room fixture by.

Octave band SPL Sound Pressure Level in Octave Used in line with band SPL octave filters GB/T 3241 provisions measured.

Stationary noise Steady noise Within the measurement time, the measured sound level of the sound source is not greater than 3dB fluctuation noise, the noise is stationary.

Non-steady non-stationary noise in measuring time, undulating sound level measured sound source is greater than 3dB noise is non-stationary noise.

4.1 Measuring instruments and performance requirements

4.1.1

The sound level meter and filter Measuring instrument performance should be consistent with GB 3785.1 type 1 sound level meter requirements; noise spectrum analysis filter performance should be consistent with GB/T Filter requirements in 3241, with real-time spectrum analyzer, the measurement range should meet the needs of the measurement noise. other request Accordance with GB 12348, GB 22337 and other standards.

4.1.2 Acoustic Calibrator

Calibration instruments should be consistent with GB/T 15173 Type 1 sound calibrators requirements.

4.2 Measurement conditions

Accordance with GB 12348, GB 22337 and other standards.

5 on-site survey and monitoring

5.1 Scene Investigation

Site survey content and methodology, see appendix Table A.1, Appendix B.

5.2 Monitoring Methods

According to the conclusions of the survey 5.1 site, monitoring methods are divided into two kinds of situations. when a suspicious sound source device can identify the sound source is located and suspicious Preparation time is not able to identify. Wherein, when a suspicious sound source device can recognize, according to equipment operating status, shutting down and can not be divided into Shutting down two states. Monitoring results are reported in Table reference Table A.2.

5.2.1.1 Monitoring Sites

Laid 1-3 monitoring points in the affected room, including the middle of the room and may be affected by noise point of maximum points. Measurement the amount of the above position from the wall or other reflective surface 0.5m, from the ground 0.5 ~ 1.2m. Measurement process, close the door of the test room, window;

Close all the test chamber may interfere with noise measurement sound source (such as televisions, air conditioners, fans, ballasts, and other sound facilities);

Exclude the test room and the surrounding environment, man-made noise, interference from other vibration, such as walking, talking, and other housework.

5.2.1.2 Monitoring Project

Monitoring projects include. the equivalent A sound level for each octave band sound pressure level of background noise. Measured simultaneously at night when there are non-stationary noise A maximum amount of sound level.

5.2.1.3 Monitoring period

Respectively, in the daytime, at night were two periods, the measurement period shall cover the maximum emission state measured sound source. The sound source under test is stable Mode noise measurement 1min equivalent A sound level and each octave band sound pressure level; non-stationary noise source under test, measuring a representative period Equivalent A sound level and each octave band sound pressure level.

Can not shut down when the background measurement 5.2.1.4 suspicious sound source device when a suspicious sound source device can not be shut down, the background measurement is not optional acoustic sources on suspicious device, and the background sound and Test Environment Indoor close proximity room measurements.

5.2.2 Unable to identify suspicious sound source

Due to technical reasons and other reasons can not identify suspicious sound source can be monitored and issue monitoring reports, no monitoring data According to the judge.

6 Background noise correction

Equivalent A sound level and sound pressure level for each octave band measurements are required to carry out background noise correction, the specific process by HJ 706-2014 "ring Ambient noise monitoring technical specifications noise measurement value correction" of the relevant provisions.

7.1 Evaluation Criteria

Measurement results of the individual measuring points according to the structure GB 12348 and GB 22337 fixed spread specified equipment room noise emission limits Individually assessed.