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**Technical specifications for environmental noise monitoring.
Routine monitoring for urban environmental noise
(English Translation)**

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Appendix A (informative) sound urban environmental monitoring sites were the basic information table, and record the results in Table 9 Statistics

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 the city Acoustic Environment routine monitoring and evaluation, development of this standard.

This standard specifies the content of urban acoustic environment monitoring routine monitoring, set point, monitoring frequency, time measurement, evaluation method and quality assurance and quality control and other technical requirements.

Appendix A of this standard 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, Ministry of Environmental Protection Environmental Standards Institute.

This standard MEP December 3, 2012 for approval.

This standard since March 1, 2013 implementation.

The standard explanation by the Ministry of Environmental Protection.

Environmental noise monitoring technical specifications urban sound environment for routine monitoring

1 Scope

This standard specifies the content of urban acoustic environment monitoring routine monitoring, set point, monitoring frequency, time measurement, evaluation method and quality assurance and quality control and other technical requirements.

This standard applies to the environmental protection department of the monitoring and evaluation of environmental quality in the city carried out routine monitoring of urban acoustic environment Measurement. Rural areas acoustic environment monitoring can be implemented by reference.

2 Normative references

This standard refers to the contents of the following documents or the terms. Where undated references, the valid version apply to this standard.

GB 3096 acoustic environment quality standards GB/T 15190 Urban Noise applicable zoning specifications GA 802 vehicle type terms and definitions

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Urban Environmental Noise routine monitoring

Also known as the routine monitoring refers to monitoring the regional acoustic environment for mastering environmental quality in the city, the environmental protection department carried out, Road traffic acoustic environment monitoring and Sound Environment Monitoring (abbreviated. regional monitoring, traffic monitoring and monitoring of functional areas).

3.2 Urban Roads

Roads within the city limits with certain technical conditions and facilities, mainly for urban expressways, urban trunk road, urban sub-distributors, Including rail corridor through the city roads and highways.

3.3 City size

Usually it refers to the number of the city's population, according to the urban resident population, a huge city of more than 10 million people, 3 million mega-cities ~ 10 million people (inclusive), cities 100 to 300 million people (inclusive), medium-sized city of 500,000 people to 100 million (inclusive), Small city of less than or equal to 50 million people.

3.4 Large car

According to GA 802, grew up in a car than or equal to 6 m is equal to or greater than the number of passengers 20 passenger cars, and a large total mass Than or equal to 12 t of truck and trailer.

3.5 SMEs car

According to GA 802, refers to the vehicle length less than 6 m and the number of passengers less than 20 passenger cars, with a total mass of less than 12 t laden steam Trucks and trailers, and motorcycles.

3.6 Ribbon

According to GB/T 15190 of the divided city of various types of environmental noise applicable zone.

4.1 Regional monitoring purposes

Evaluation of the overall level of noise throughout the urban environment; analysis of urban acoustic environment variation and annual trends.

Point 4.2 of the regional monitoring settings

4.2.1 Referring to GB 3096 Appendix B Sound Environment Monitoring district census, the city built the entire area into a plurality of other major Square grid (eg 1000m x 1000m), not even for a piece of the built-up area, a square grid can not converge. Water grid Surface area or areas can not be monitored (eg. closed area) and an area of 100% non-built-up area is more than 50% of the grid meshes invalid.

Total number of valid grid throughout the urban area should be more than 100.

4.2.2 In the center of each laid a grid monitoring sites. If the center of the grid should not be measured (such as water, restricted area, the road line Lanes, etc.) should be monitored from the center point to move to the location of the nearest measure to measure. Measuring point to meet the GB 3096 the test point selection general outdoor requirements. Monitoring points height from the ground is 1.2 ~ 4.0 m.

4.2.3 monitoring sites based content information can be found in Schedule 1 of the regulations.

Frequency, time, and measuring the amount of 4.3 of the regional monitoring

4.3.1 Daytime monitoring once a year, monitoring should be within the normal daytime working hours, and should cover the entire working hours.

4.3.2 Monitoring at night once every five years, in the third year of each five-year plan for

monitoring, surveillance begins the night start time.

4.3.3 Monitoring should be arranged during the annual spring or autumn, each city should be relatively fixed monitoring date, monitoring should avoid holidays and non-normal working day.

4.3.4 Each monitoring sites measuring 10 min of the equivalent continuous A sound level L_{eq} (abbreviation. equivalent sound level), recording cumulative percentile sound level L_{10} , L_{50} , L_{90} , L_{max} , L_{min} and the standard deviation (SD).

Results of regional monitoring and evaluation 4.4

4.4.1 Monitoring data should be specified in Schedule 4 of the contents of the recording. Monitoring statistics provided by the contents of Schedule 7 reported.

4.4.2 calculate the overall level of noise throughout the urban environment. The entire city all grid points measured equivalent sound level measured points for day and night, According to equation (1) arithmetic mean calculation, the average daytime and nighttime equivalent sound dS average equivalent nS obtained on behalf of the city the overall level of environmental noise day and night.

iL_n

Where. S - urban areas average daytime equivalent sound level (dS) or night average equivalent (nS), dB (A);

L_i - the i -th grid measured equivalent sound level, dB (A);

n - total number of valid grid.

4.4.3 The overall level of environmental noise of urban area in Table 1 were evaluated.

Table 1 Urban Noise level overall classification

Unit. dB (A)

Level	one	two	three	four	five	Average daytime equivalent sound level (dS)	≤ 50.0	$50.1 \sim 55.0$	$55.1 \sim 60.0$	$60.1 \sim 65.0$	> 65.0	Night average equivalent (nS)	≤ 40.0	$40.1 \sim 45.0$	$45.1 \sim 50.0$	$50.1 \sim 55.0$	> 55.0
the overall level of urban regional environmental noise level "a" to "five" may correspond evaluated as "good", "better", "General", "poor" and "poor."																	

5.1 Road traffic monitoring purposes

Reflect road traffic noise source intensity noise; analysis of road traffic noise level and traffic, road conditions and the relationship between changes in regulations Annual variation and trends analysis of urban road traffic noise; law.