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

DL/T 2037-2019

**principle for regionalizing environmental noise standard of
substation**

(English Translation)

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Foreword

This standard was proposed by the Standardization Management Center of the China Electricity Council.

This standard is under the jurisdiction and interpretation of the National Electromagnetic Compatibility Standardization Technical Committee (SAC/TC 246).

The organizations responsible for drafting this standard. China Electric Power Research Institute Co., Ltd., State Grid Hubei Electric Power Co., Ltd. Economic and Technical Research Institute, State Grid Co., Ltd., State Grid Jiangxi Electric Power Co., Ltd. Electric Power Research Institute, State Grid Shanghai Electric Power Company Electric Power Research Institute, Guangdong Power Grid Co., Ltd. Electric Power Research Institute, State Grid Shandong Electric Power Company Electric Power Research Institute.

1 Scope

This standard regulates the application principles for the environmental noise implementation standard at the boundary of substations.

The application principles of this standard are applicable to the application of environmental noise implementation standards at the boundary of new construction, reconstruction and expansion substations.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this

document.

GB 3096-2008 Acoustic Environmental Quality Standard GB 12348-2008 Environmental Noise Emission Standard at the Boundary of Industrial Enterprises GB/T 15190-2014 Technical Specification for Division of Acoustic Environment Function Zone

3 Terms and definitions

The following terms and definitions apply to this document.

City

Municipalities, cities, and organizational towns established under the national administrative system.

[GB/T 15190-2014, definition 3.1] 3.2 Urban planning area Urban urban areas, suburban areas, and other areas within urban administrative areas that are subject to planning control due to urban construction and development. City planning the specific scope of the district shall be delineated by the city people's government in the city's overall plan.

[GB/T 15190-2014, definition 3.2] 3.3 Rural area Areas other than urban planning areas, such as villages, market towns, etc.

Villages refer to settlements where villagers live and engage in various productions in rural areas.

A market town refers to the seat of the people's government of a township or nationality township and a certain area of rural economy that is determined by the county-level people's government to develop from the market.

It is a non-organized town that serves as the center of economic, cultural and life services.

[GB/T 15190-2014, definition 3.3] 3.4 Traffic artery Railways, expressways, first-class highways, second-class highways, urban expressways, urban trunk roads, urban secondary trunk roads, Urban rail transit and inland waterways shall be determined according to the planning of railways, transportation, and cities.

[GB/T 15190-2014, definition 3.7] 3.5 Noise zoning unit in urban area planning, the urban structure and layout surrounded by obvious linear features such as traffic arteries, rivers, ravines, and green spaces Neighborhoods, or communities that are similar to the environment.

[GB/T 15190-2014, definition 3.8] 3.6 Boundary the land use right (or ownership) of the landlord as determined in legal documents (such as land use certificate, real estate certificate, lease contract, etc.) Place or building boundary. The plant boundary of various noise-producing fixed equipment is the boundary of its actual land occupation.

[GB 12348-2008, definition 3.4] 3.7 Noise-sensitive buildings Refers to buildings that need

to be kept quiet, such as hospitals, schools, institutions, scientific research units, and residences.

[GB 12348-2008, definition 3.5]

4 Classification of acoustic environment functional areas

According to GB 3096-2008, the acoustic environment functions are divided into the following five types according to the use function characteristics of the area and the acoustic environment quality requirements.

Class 0 acoustic environment functional area. refers to areas that require quietness, such as rehabilitation.

Class 1 acoustic environment functional area. refers to the main functions of residential housing, medical and health, cultural education, scientific research and design, and administrative office.

Keep a quiet area.

Type 2 acoustic environment functional area. refers to the main function of commercial finance, bazaar trade, or a mixture of residence, commerce, and industry.

Quiet area.

Type 3 acoustic environment functional area. refers to industrial production, warehousing and logistics as its main functions, and it is necessary to prevent industrial noise from causing serious damage to the surrounding environment Affected area.

Type 4 acoustic environment functional area. refers to the areas within a certain distance on both sides of the main traffic line that need to prevent traffic noise from having a serious impact on the surrounding environment the area includes two types. 4a and 4b. Type 4a includes expressways, primary highways, secondary highways, urban expressways, urban trunk roads, Urban secondary arterial roads, urban rail transit (ground section), areas on both sides of inland waterways; category 4b is areas on both sides of main railway lines.

5 Principles of application for environmental noise implementation standards at plant boundaries

5.1 New substation

Newly built substations should be based on the acoustic environment function zoning in the existing planning of the zoning unit, and should apply for the implementation of the corresponding acoustic environment function zone plant Environmental noise emission limit standards.

a) The environmental noise emission limit of the plant boundary should be determined

according to the type of acoustic environment function area on each side of the plant boundary. When one side of the factory boundary is located at 4 in the case of an acoustic environment functional zone, the environmental noise emission standard at the boundary of the factory shall be applied in accordance with the corresponding standard limit value of the 4 acoustic environment functional zone.

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b) When the planned substation is located in a category 1 acoustic environment function zone, the environmental noise emission standard at the plant boundary should apply for the implementation of category 2 acoustic environment function the environmental noise emission limit of the district plant boundary.

c) When the acoustic environment function area of the planned substation is not clear, it is advisable to report to the local people's government at the county level and above.

The competent authority confirms the acoustic environment functional area.

5.2 Reconstruction and expansion of substations

a) For substations that have not determined the environmental noise emission limit of the plant boundary, follow 5.1.

b) For substations that have determined the environmental noise emission limit of the plant boundary, if there is no change in the acoustic environment function zoning, the acoustic ring shall be used.

Standard limit of environmental function zone; if the acoustic environmental function zone changes, follow 5.1.

references

[1] HJ 2.4-2009 Technical Guidelines for Environmental Impact Assessment Acoustic Environment [2] GB 50137-2011 Urban land classification and planning and construction land standards