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

GB 9089.5-2008

Replacing GB 9089.5-1995

**Electrical installations for outdoor sites under heavy conditions
-- Part 5: Operating requirements**

户外严酷条件下的电气设施 第5部分: 操作要求

(English Translation)

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Foreword

In addition to the Chapter 1, Chapter 2, and Chapter 3 of Appendix A content, the rest is mandatory.

GB 9089 "Electrical installations in harsh outdoor conditions" is divided into the following parts.

- Part 1. Scope and definitions;
- Part 2. General protection requirements;
- Part 3. General requirements for equipment and accessories;
- Part 4. Requirements means;
- Part 5. Operational requirements.

This section GB 9089 series of standards Part 5, identical with IEC 60621-5. 1987 Electrical installations of "harsh outdoor conditions Part 5. Operational requirements "(in English).

This part is a revision of the "electric apparatus operating requirements under harsh outdoor conditions" GB 9089.5-1995 is.

This section compared with GB 9089.5-1995, except some changes in the text, the main difference relates to the following.

- in accordance with GB/T 1.1-2000 and GB/T 20000.2-2001, and the contents of the re-GB 9089.5-1995 New editor;
- the original standard name "Electrical apparatus operating requirements under harsh outdoor conditions" modify Electrical installations of "harsh outdoor conditions Part 5. Operation Requirements ";
- The term portion as defined GB 7251 series of standards on a consistent translation for equipment used in the industry;
- increasing requirements for operating in the vicinity of the collector/overhead line under consideration;
- on fire is not currently required.

Appendix A of this section is an informative annex.

This partial replacement GB 9089.5-1995 "electrical device operating requirements under harsh outdoor conditions." this section was proposed by China Electrical Equipment Industrial Association.

This part is the responsibility of the National Technical Committee of Standardization low voltage switchgear and control equipment.

This section was drafted. Tianjin Institute of Electrical Transmission Design, Tianjin-day electric power distribution Co., Ltd., Beijing Coal Electric Co., Ltd., Hangzhou welcomed the US Electrical Equipment Manufacturing Co., Ltd., Linhai City Yiu-ming Power Equipment Co., Ltd., Beijing State Power Technology Co., Ltd. Kang.

2 Normative references

Terms of the following documents constitute provisions of this section by reference in this part of GB 9089. For dated references, all subsequent amendments (excluding corrections) or revisions do not apply to this section, however, encouraged to reach an agreement under this section Whether the parties to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 9089.1-2008 electrical installation in harsh outdoor conditions Part 1. Scope and definitions (IEC 60621-1. 1987, IDT) Electrical installations Part 2 under harsh outdoor conditions 9089.2-2008 GB/T . General protection requirements (IEC 60621-2. 1987, MOD)

3 Terms and Definitions

GB/T 9089.1-2008 content applicable to this section.

Four pairs of entry into the restricted operating area

4.1 Into the normal operating area

Any person can be close to the normal operating region in accordance with the requirements set 9089.2-2008 Chapter 4 of GB/T all obscuration and case.

GB/T 9089.2-2008 in 4.2.3b), c), d) or e) with the exception of the type described, masking or housing by qualified personnel or designated Staff can disassemble and move. When the housing is moved and masking or the exposed live parts not isolated, according to the present section 5.3, should be installed temporary Masking and warning signs.

4.2 Into the electrical operating area and the area enclosed electrical operation

Unless all exposed live parts operating in the region have taken isolation measures in accordance with 5.3, only the following persons allowed to enter the electrical operation and a closed region for electrical operation region.

- a) Professional;
- b) the designated person;
- c) accompanied by a person of ordinary professional or designee.

5.1 General requirements

When required to operate near the rated voltage greater than 50V AC or DC 120V exposed live parts, shall meet the following requirements one.

a) should be 5.2 to comply with specified minimum operating close distance;

GB 9089.5-2008/IEC 60621-5. 1987

b) To deal with exposed live parts isolated 5.3;

c) specify the persons or professionals should comply with the special procedure provided for in 5.4.

5.2 The minimum approach distance Except as permitted by 5.4, any person or object in contact with people close to the closing distance in Table 1 exposed live parts, special the operation of the device except for the insulation.

Note 1: In order to comply with the minimum approach distance requirements, ropes, masking or similar measures can be adopted.

Note 2: Table 1 predetermined minimum approach distance is fixed in position and a stable working surface of the charging member is exposed based, in these cases does not apply to Party, taking into account the expected displacement should increase the minimum approach distance.

Note 3: Table 1 may be necessary to increase the minimum approach distance of a predetermined operation in the vicinity of overhead lines.

When exposed personnel operating near the charging member, the use of long items such as. special care should ladder, metal tripod, tubes and the like. Recommended water to level when at least two people to move these objects.

Table 1 Minimum distance a person approaching

Rated working voltage/kV (rms phase - phase) minimum approach distance/mm

Note 1: The minimum approach distance is not specified, to avoid contact with live parts.

Note 2: The minimum rated voltage of 35kV and 66kV in the case of a proximity distance by the manufacturer, in consultation with the user, referring to the data selection determination.

a predetermined minimum approach distance allows the actual system voltage variation may reach 20% of rated voltage.

5.3 Isolation of exposed live parts

When Table 1 must be less than a predetermined minimum approach distance near exposed energized from the operation member, the electric charging respond exposed portion Source isolation. This requirement specified by 5.4 or professionals operation does not apply.

Means greater than the rated voltage of 1000V, the spacer should include short and a ground connecting member. Professionals should ensure that every Off, short circuit and ground properly completed and start operation after confirmation. During the test, shorting and ground in a short time can be removed, but it should take appropriate measures