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

GB/T 2828.2-2008

**Sampling procedures for inspection by attributes -- Part 2:
Sampling plans indexed by limiting quality (LQ) for isolated lot
inspection**

(English Translation)

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Table of Contents

Foreword...	3
1 Scope...	6
2 Normative References...	7
3 Terms, Definitions and Symbols...	7
4 Selection of Sampling Plans...	8
5 Acceptance and Rejection...	19
6 Examples Illustrating the Application of Mode A...	20
7 Additional Information...	20
Appendix A (normative) Mode B Sampling Plan...	23
Appendix B (informative) Relations between GB/T 2828.2 and GB/T 2828.1	49
Appendix C (informative) Double and Multiple Sampling Plans...	51
Bibliography...	54

Foreword

GB/T 2828 Sampling Procedures for Inspection by Attributes currently includes the following parts. The expected structures, corresponding international standards, and national standards that will be replaced are as follows.

---Part 1.Sampling Schemes Indexed by Acceptance Quality Limit (AQL) for Lot-by-lot Inspection (ISO 2859-1.1999, IDT; replacing GB/T 2828-1987)

---Part 2.Sampling Plans Indexed by Limiting Quality (LQ) for Isolated Lot Inspection (ISO 2859-2.1985, NEQ; replacing GB/T 15239-1994)

---Part 3.Skip-lot Sampling Procedures (ISO 2859-3.2005, IDT; replacing GB/T 13263-1991)

---Part 4.Procedures for Assessment of Declared Quality Levels (ISO 2859-4.2002, MOD; replacing GB/T 14437-1997 and GB/T 14162-1993)

---Part 5.System of Sequential Sampling Plans Indexed by Acceptance Quality Limit (AQL) for Lot-by-lot Inspection (ISO 2859-5.2005)

---Part 10.Introduction to the GB/T 2828 Series of Standards for Sampling for

Inspection by Attributes (ISO 2859-10:2006)

---Part 11.Procedures for Assessment of Declared Quality Levels for Small Population (replacing GB/T 15482-1995)

This is the 2nd part of GB/T 2828.It provides sampling plans indexed by limiting quality (LQ). AQL index cannot be directly used. This is the main difference from the special procedures for limiting quality protection provided in GB/T 2828.1.This Part of GB/T

2828 complies with the following design principles.

---Sampling plans indexed by LQ can be found from sampling plans indexed by AQL in ISO 2859-1.

---The priority sequences of LQ index and AQL index are different, so to avoid confusion.

---As long as it is possible, the following five basic parameters that are associated with single sampling plan shall emerge in the same table. lot size, sample size, acceptance number, producer's risk quality, or AQL, LQ.

The consistency degree between this Part of GB/T 2828 and ISO 2859-2:1985 Sampling Procedures for Inspection by Attributes - Part 2.Sampling Plans Indexed by Limiting Quality (LQ) for Isolated Lot Inspection is non-equivalent. In order to maintain the standard advanced and time-effective, this Part adopts all the technical content based on the amendment of ISO/2859-2:1985 by ISO 2859-2:2004 (CD). This Part serves as a replacement of GB/T 15239-1994.In comparison with ISO 2859-2:1985 and GB/T 15239-1994, this Part has the following main differences in technical content.

- a) In order to emphasize Procedure A, the sampling plan of Mode B is considered as normative appendix A.
- b) In order to enhance the practicability of the standard, Table 3, Table 7, Table 8, Table A.11, Table A.12, Table C.1 and Table C.2 are added to this Part of GB/T 2828.
- c) Items in Table A.1 to Table A.10, which are corresponding with Table B.1 to Table B.10 (and Table 2 to Table 11 in GB/T 15239-1994) in ISO 2859-2:1985

are adjusted, so as to provide more information to the application of Mode B.

d) The complete operating curve (OC) graphs regarding sampling plans in Table A.1 to Table A.10 are re-calculated and re-drawn.

Except from the above differences, the differences between this Part of GB/T 2828 and GB/T 15239-1994 also include.

e) GB/T 15239-1994 was formulated through the reference of ISO 2859-2:1985.

This Part adopts all the technical content based on the amendment of ISO/2859-2:1985 by ISO 2859-2:2004 (CD). In addition, in accordance with the requirements in GB/T 1.1, the standard text is re-drafted.

f) Terms and definitions are reduced from 32 to 2; the latest expressions in ISO 3534-2 are adopted.

g) The inspection procedure in GB/T 15239-1994 is deleted.

h) Appendix A (reference) in GB/T 15239-1994 is deleted.

In this Part, Appendix A, which provides sampling plans for Procedure B, is normative; Appendix B, which provides the relations between this Part and the first part of GB/T 2828, is informative; Appendix C, which provides double and multiple sampling plans for isolated lot inspection, is informative.

This Part was proposed by China National Institute of Standardization.

This Part shall be under the jurisdiction of National Technical Committee on Application of Statistical Methods of Standardization Administration of China.

The drafting organizations of this Part. Army Engineering University of PLA; China National Institute of Standardization; Academy of Mathematics and Systems Science Chinese Academy of Sciences; Fuzhou CHUNLUN Tea Industry Co., Ltd.

1 Scope

GB/T 2828.2 is sampling system for inspection by attributes indexed by limiting quality (LQ). This sampling system is used for isolated lot (isolated sequential lot, isolated lot or single lot) inspection. The transfer rule in GB/T 2828.1 is not applicable here. The sampling plan provided in this Part of GB/T 2828 serves as a supplement to GB/T

2828.1; it is also compatible with GB/T 2828.1.

In this Part of GB/T 2828, the sampling plan is indexed by limiting quality (LQ) of priority sequence. Consumer's risks are lower than 13% under two circumstances, other than this, they are generally lower than 10%. This indexing method is more convenient than the special procedure of limiting quality protection in GB/T 2828.1.

NOTE: the sampling plans in GB/T 2828.1 are indexed in accordance with inspection level and the priority sequence of AQL. In the inspection of continuous lots, the application of the transfer rule can ensure that the process average in the series lot is lower than the appointed AQL. However, limiting quality and process average do not have similar direct relations.

This Part of GB/T 2828 was initially designed for the inspection of disqualified products. Except from the circumstance with excessively large LQ value, it may also be applied to the inspection of the number of disqualified products per 100 units. If this Part of GB/T 2828 is not suitable, user may refer to the special procedure of limiting quality protection in 12.6.2 in GB/T 2828.1.

This Part of GB/T 2828 provides the following two modes. Choose one of them in accordance with the demands.

a) Mode A

When the producer and the consumer consider lot as isolated lot for inspection, this procedure shall be adopted. In other words, the uniqueness of lot lies in the production of lot by its type.

b) Mode B

When the producer believes that it is continuous sequential lots, while the consumer accepts in accordance with isolated lot, this procedure shall be adopted. In other words, the consumer merely accepts one lot (or only a few lots) in continuous sequential lots. Mode B is provided in Appendix A.