

Sampling procedures for inspection by attributes —

Part 3: Specification for skip-lot procedures

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Committees responsible for this British Standard

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- British Gas plc
- Clay Pipe Development Association Limited
- Institute of Metal Finishing
- Institute of Quality Assurance
- Ministry of Defence
- Royal Statistical Society
- Society of Engineers Incorporated

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National foreword

This Part of BS 6001, having been prepared under the direction of the Quality, Management and Statistics Standards Policy Committee, supersedes BS 6001-3:1986, which is withdrawn.

This revision is identical with ISO 2859-3:1991 *Sampling procedures for inspection by attributes — Part 3: Skip-lot sampling procedures*, published by the International Organization for Standardization (ISO). It follows the principles and procedures that were given in the 1986 edition of BS 6001-3.

In this revision some changes in the wording of the text have been made with a view to improving clarity. In addition to these, principal changes have been made as follows.

The clauses on the scope and the field of application have been merged into an extended scope clause in which the limitations in the use of the standard and its procedures have been made more explicit. The scope clause makes reference to a new annex A in which inspection options appropriate for given product needs and environments are summarized. In the definitions clause the term “skip-lot sampling” has been replaced by “skip-lot inspection” (with retention of the definition) and the definition of “reduced inspection” has been dropped. An example, introduced in 4.3 and referred to in the remainder of the main text, is included to illustrate the determination of initial frequency (in 5.2), the reduction of inspection frequency (in 5.3.3), the requalification procedures (in 5.6.2) and the reinstatement of lot-by-lot inspection as a result of disqualification (in 5.7.2). Subclause 5.4 has been modified and extended. The description of the characteristics of the skip-lot procedures, previously contained in appendix B, has been moved to the main body of the text (clause 8). Appendices D and E have been merged into a single annex D of informative references.

BS 6001 is published in the following Parts.

- *Part 1: Specification for sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection;*
- *Part 2: Specification for sampling plans indexed by limiting quality (LQ) for isolated lot inspection;*
- *Part 3: Specification for skip-lot procedures.*

The publication of this revision of Part 3 coincides with the publication of the revision of Part 2. It is envisaged that Part 0 will be published identical to ISO 2859-0, which is in preparation.

Cross-references

International standard	Corresponding British Standard
ISO 2859	BS 6001 <i>Sampling procedures for inspection by attributes</i>
ISO 2859-0 ¹⁾	Part 0 <i>Introduction to the BS 6001 attribute sampling system</i> ¹⁾ (Identical)
ISO 2859-1:1989	Part 1:1991 <i>Specification for sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection</i> (Identical)
ISO 2859-3:1991	Part 3:1993 <i>Specification for skip-lot procedures</i> (Identical)
ISO 3534:1977	BS 5532:1978 <i>Statistical terminology</i> Part 1 <i>Glossary of terms relating to probability and general terms relating to statistics</i> (Identical)
	BS 5750 <i>Quality systems</i>
ISO 9001:1987	Part 1:1987 <i>Specification for design/development, production, installation and servicing</i> (Identical)
ISO 9002:1987	Part 2:1987 <i>Specification for production and installation</i> (Identical)
ISO 9003:1987	Part 3:1987 <i>Specification for final inspection and test</i> (Identical)

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 14, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

¹⁾ In preparation.

1 Scope

1.1 This part of ISO 2859 specifies generic attribute skip-lot sampling procedures for reducing the inspection effort on products submitted by those suppliers who have demonstrated their ability to control, in an effective manner, all facets of quality and who consistently produce lots which meet requirements. The reduction in inspection effort is achieved by selecting at random, with a specified probability, whether a lot presented for inspection will be passed without inspection. This procedure extends to the inspection of lots the principle of random selection already applied within ISO 2859-1 to the individuals comprising a lot.

Inspection may take place at the supplier's or purchaser's locations or at an interface between operations of a production process. The skip-lot procedures are designed to be used with the attribute lot-by-lot plans described in ISO 2859-1.

NOTE 1 The skip-lot procedures specified in this part of ISO 2859 should be distinguished from Dodge's skip-lot plans. See ^[4], ^[5] and ^[6] in annex D.

1.2 Since every product has its own environment and characteristics, options are provided in recognition of the fact that the supplier and responsible authority select the appropriate options to meet the specific needs of the product and its environment. All choices as a result of this tailoring should be specified in a written document (see annex A).

The procedures specified are applicable to, but not limited to, the inspection of

- a) end items, such as complete units or sub-assemblies;
- b) components and raw materials;
- c) services;
- d) materials in process;
- e) supplies in storage;
- f) data or records;
- g) administrative procedures.

These procedures are intended only for a continuing series of lots or batches and are not to be used for isolated lots. All lots in the series are expected to be of a similar quality and there should be reason to believe that the lots not inspected are of the same quality as the ones inspected.

This part of ISO 2859 is to be used only for characteristics inspected by attributes as designated in ISO 2859-1. Its application differs from that of reduced inspection in ISO 2859-1. With respect to the inspection of multiple characteristics, the skip-lot procedures will follow the same principles used in the associated ISO 2859-1 procedures.

The skip-lot procedures in this part of ISO 2859 can only be implemented if the ISO 2859-1 procedures are in use, on normal or reduced inspection, or a combination of normal and reduced inspection, at general inspection levels I, II or III.

Multiple sampling plans may only be used during the qualification phase associated with normal inspection. It is strongly recommended that single sampling plans with an acceptance number of zero are not used in this part of ISO 2859 (see **8.1** and clause **C.4**).

NOTE 2 Reduced inspection is a feature of ISO 2859-1 permitting smaller sample sizes than used in normal inspection.

NOTE 3 Reduced inspection may be used while the product is in the lot-by-lot inspection state, but may not be used during the skip-lot inspection or skip-lot interrupt states.

NOTE 4 Skip-lot sampling may be used instead of reduced inspection if it is more cost effective to do so (see annex C).

1.3 When specified by the purchaser, this part of ISO 2859 may be referenced in a purchasing or specification contract, inspection instruction, or other contractual documents. The responsible authority and the inspection agency are to be designated in one of the above documents. The inspection agency may be the responsible authority or an organization delegated to conduct the inspection procedures.

1.4 It is essential that the skip-lot procedures are not applied to the inspection of product characteristics that bear upon the safety of personnel.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 2859. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 2859 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2859-1:1989, *Sampling procedures for inspection by attributes — Part 1: Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection*.

ISO 3534:1977, *Statistics — Vocabulary and symbols*.

3 Definitions

For the purposes of this part of ISO 2859, the definitions given in ISO 2859-1 and ISO 3534, together with the following definitions, apply.