



Standard Practice for Single- and Multi-Level Continuous Sampling of a Stream of Product by Attributes Indexed by AQL¹

This standard is issued under the fixed designation E2819; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice establishes tables and procedures for applying five different types of continuous sampling plans for inspection by attributes using MIL-STD-1235B as a basis for sampling a steady stream of lots indexed by AQL.

1.2 This practice provides the sampling plans of MIL-STD-1235B in ASTM format for use by ASTM committees and others. It recognizes the continuing usage of MIL-STD-1235B in industries supported by ASTM. Most of the original text in MIL-STD-1235B is preserved in Sections 6 – 10 of this practice.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

E456 Terminology Relating to Quality and Statistics

E1994 Practice for Use of Process Oriented AOQL and LTPD Sampling Plans

E2234 Practice for Sampling a Stream of Product by Attributes Indexed by AQL

2.2 Military Standards:³

MIL-STD-1235A1 Functional Curves of the Continuous Sampling Plans

MIL-STD-1235B Single- and Multi-Level Continuous Sampling for Attributes

¹ This practice is under the jurisdiction of ASTM Committee E11 on Quality and Statistics and is the direct responsibility of Subcommittee E11.30 on Statistical Quality Control.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098, <http://dodssp.daps.dla.mil>.

3. Terminology

3.1 Definitions:

3.1.1 For a more extensive list of terms in E11 standards see Terminology E456.

3.1.2 *acceptance quality limit (AQL), n*—quality limit that is the worst tolerable process average when a continuing series of lots is submitted for acceptance sampling. **E2234**

3.1.3 *average outgoing quality (AOQ), n*—the average percent defective of outgoing product including all accepted lots or batches after any defectives found in them are replaced by acceptable units, plus all lots or batches which are not accepted after such lots or batches have been effectively 100 % inspected and all defective units replaced by acceptable units. **E1994**

3.1.4 *average outgoing quality limit (AOQL), n*—the maximum AOQ for a given acceptance sampling plan for all possible incoming percentages defective for the process. **E1994**

3.1.5 *continuous sampling inspection, n*—a method of sampling a stream of product in order of production where the sampling frequency is adjusted based on ongoing inspection results.

3.1.5.1 *Discussion*—Only those units of product found by the inspector or screening crew to be nonconforming are rejected. The rest of production, uninspected units as well as units found to be conforming, is allowed to continue down the production line as conforming material.

3.1.6 *critical defect, n*—a defect that judgment and experience indicate would result in hazardous or unsafe conditions for individuals using, maintaining, or depending upon the product, or a defect that judgment and experience indicate is likely to prevent performance of the function of a major end item. **E2234**

3.1.7 *critical defective, n*—a unit of product which contains one or more critical defects and may also contain major and minor, or both, defects. **E2234**

3.1.8 *defect, n*—any nonconformance of the unit of product with specified requirements. **E2234**

3.1.9 *inspection, n*—the process of measuring, examining, testing, or otherwise comparing the unit of product with the requirements. **E2234**