First edition 2005-03-01

# Acceptance sampling procedures based on the allocation of priorities principle (APP) —

## Part 1:

## **Guidelines for the APP approach**

Règles d'échantillonnage pour acceptation fondées sur le principe d'attribution de priorités (APP) —

Partie 1: Lignes directrices relatives à l'approche APP



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#### **Foreword**

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 13448-1 was prepared by Technical Committee ISO/TC 69, *Applications of statistical methods*, Subcommittee SC 5, *Acceptance sampling*.

ISO 13448 consists of the following parts, under the general title *Acceptance sampling procedures based on the allocation of priorities principle (APP)*:

- Part 1: Guidelines for the APP approach
- Part 2: Coordinated single sampling plans for acceptance sampling by attributes

### Introduction

The ISO 13448 series of International Standards provides a new acceptance sampling methodology in support of quality management. This could be beneficial for users of ISO 9001 or ISO 9004. This part of ISO 13448 gives guidance and explains the methodology, which is based on the "allocation of priorities principle" (APP). ISO 13448-2 provides attributes sampling plans. Development of ISO 13448-3, to provide variables sampling plans, is under consideration.

The procedures in the ISO 13448 series have considerable advantages under certain circumstances. A novel feature is the ability to use practically any type of prior objective and subjective information when determining the appropriate sampling plan. Examples of such information are inspection results for previous lots, certification of quality management systems as being in conformity with ISO 9001, quality control data and customers' subjective estimates of the supplier's capability to provide the desired quality, all of which may be summarized in a trust level. This allows a progressive reduction in sample size as the customer's trust in the producer increases.

Another advantage of the procedures arises when successive inspections of the same lot are carried out by different parties (i.e. customer, producer and/or a third party). In the past, it was generally accepted that the parties should use similar inspection plans or schemes. This could sometimes prove impossible, due to the parties having different resources and capabilities for inspection. Moreover, due to sampling variability, in up to 25 % of cases the use of similar inspection plans or schemes could result in contradictory results between two parties. This can lead to considerable effort being required to resolve disputes that could have been avoided from the very beginning. The APP enables each of the parties to organize inspection in accordance with its own resources and capabilities for inspection, thereby significantly reducing the probability of occurrence of contradictory results. The parties are not required to coordinate their sampling plans with each other, only with specific requirements of the sampling plans such as customer's or supplier's risks.