IS 15202 (Part 1) :2002
ISO 11462-1 :2001

Indian Standard

GUIDELINES FOR IMPLEMENTATION OF STATISTICAL PROCESS CONTROL (SPC)

PART 1 ELEMENTS OF SPC

1 Scope

Statistical process control (SPC) concerns the use of statistical techniques and/or statistical or stochastic control algorithms to achieve one or more of the following objectives:

a) to increase knowledge about a process;

b) to steer a process to behave in the desired way

c) to reduce variation of final-product parameters, or in other ways improve performance of a process.

These guidelines give the elements for implementing an SPC system to achieve these objectives. The common economic objective of statistical process control is to increase *good* process outputs produced for a given amount of resource inputs.

NOTE 1 SPC operates most efficiently by controlling variation of a process parameter or an in-process product parameter that is correlated with a final-product parameter and/or by increasing the process's robustness against this variation. A supplier's final-product parameter may be a process parameter to the next downstream supplier's process.

NOTE 2 Although SPC is concerned with manufactured goods, it is also applicable to processes producing services or transactions (for example, those involving data, communications, software, or movement of materials).

This part of ISO 11462 specifies SPC system guidelines for use

— when a supplier's capability to reduce variation in processes associated with design or production needs to be proven or improved; or

— when a supplier is beginning SPC implementation to achieve such capability.

These guidelines are not intended for contractual, regulatory or certification use.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 11462. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 11462 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3534-1:1993, *Statistics — Vocabulary~ and symbols — Part 1: Probability and general statistical terms.*

ISO 3S34-2: 1993, statistics — *Vocabulary and symbols — Part 2: Statistical quality control.*

ISO 3534-3:1999, Statistics — *Vocabulary and symbols — Part 3: Design of experiments.*

ISO 9000:2000, *Quality management systems —Fundamentals and vocabulary.*