



# Quality management and quality system elements —

## Part 4: Guidelines for quality improvement

### TECHNICAL CORRIGENDUM 1

*Management de la qualité et éléments de système qualité —*

*Partie 4: Lignes directrices pour l'amélioration de la qualité*

*RECTIFICATIF TECHNIQUE 1*

## iTeh STANDARD PREVIEW

Technical corrigendum 1 to International Standard ISO 9004-4:1993 was prepared by Technical Committee ISO/TC 176, *Quality management and quality assurance*, Subcommittee SC 2, *Quality systems*.

<https://standards.iteh.ai/catalog/standards/sist/fcc45132-2601-4e73-98b4-318e095b6082/iso-9004-4-1993-cor-1-1994>

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#### A.8.4 Example

Immediately after the sub-heading, add the following text.

A new machine was installed for filling containers with 5 kg of product. The overfill, in grams, was deemed to be the important characteristic to be investigated and controlled by means of a control chart.

- Mean ( $\bar{X}$ ) and range ( $R$ ) charts were selected for this purpose.
- The subgroup was defined as five consecutive filled containers taken off the machine at hourly intervals.
- Data were collected on 25 subgroups and recorded, preserving the order of observations.

- d) Sample statistics  $\bar{X}$  (mean of five observations) and  $R$  (range of five observations) were calculated for each subgroup sample.
- e) By applying appropriate formulae (see ISO 8258), the centrelines (CL) and the upper (UCL) and lower (LCL) control limits for  $\bar{X}$  and  $R$  were calculated.
- f) The charts were constructed.
- g) Examination of the control charts showed no points outside the control limits, and no patterns of points indicating lack of randomness or presence of assignable causes. Hence, the process was judged to be repeating predictably, i.e. in a state of statistical control.
- h) It was decided to continue sampling and charting the overfill in the same manner, and not to make any adjustments to the process, unless the control chart indicated an intrusion of an assignable cause. (If control chart data were available for the old process of filling the containers, a decision could be made about the degree of improvement the new machinery has brought about.)

**iTeh STANDARD PREVIEW**  
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[ISO 9004-4:1993/Cor 1:1994](https://standards.iteh.ai/catalog/standards/sist/fcc45132-2601-4e73-98b4-318e095b6082/iso-9004-4-1993-cor-1-1994)  
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