





## CQE Training & Consultancy Plt (Reg. No. : LLP 0003668-LGN)

Registered Office : No. 46, Lorong Bintang, Taman Tasik Permai, 34000 Taiping, Perak. Malaysia.

Operating Office : No. 85A (1<sup>st</sup>. Floor), Jalan Barrack, 34000 Taiping, Perak. Malaysia.

T : +605-805 2722 F : +605-805 2721 M : +6012-505 2720 / +6012-502 2720

E : [cqetraining@gmail.com](mailto:cqetraining@gmail.com) or [kuangkh@cqetraining.com](mailto:kuangkh@cqetraining.com) W : <http://www.cqetraining.com> B : <http://cqeblog.blogspot.com>

- b) Understand the risks involved in any Sampling Plan, namely the Producer's Risk ( $\alpha$ ) and Consumer's Risk ( $\beta$ ).
- c) Gain knowledge on the various performance curves of a sampling and their interpretation; Operating Characteristic (OC) Curves, AQL, AOQ, ATI and ASN Curves.
- d) Ability to choose the appropriate sampling plan for a given set of conditions.
- e) Ability to know and determine when to perform reduced and tightened sampling plan according to performance of manufacturing processes.

## COURSE OUTLINE

### Day 1

#### Fundamentals of Sampling

- ⇒ Definition of Acceptance Sampling
- ⇒ Necessity of Sampling
- ⇒ Sampling Principle & Precautions
- ⇒ Advantages and Disadvantages of Acceptance Sampling

#### Basic Sampling Terminology

- ⇒ Sampling terms (n, N, Ac, Re)
- ⇒ Type A and Type B Sampling
- ⇒ AQL (Acceptable Quality Level)
- ⇒ Operating Characteristic (OC) Curve
- ⇒ AOQ (Average Outgoing Quality)
- ⇒ AOQL (Average Outgoing Quality Limit)
- ⇒ ATI (Average Total Inspection)
- ⇒ Producer's Risk ( $\alpha$ )
- ⇒ Consumer's Risk ( $\beta$ )

### Day 2

#### Sampling Plan Standard

- ⇒ Construction of the Operating Characteristic (OC) Curve
  1. Binomial Distribution
  2. Poisson Distribution
  3. Hypergeometric Distribution
- ⇒ Parameters Affecting Acceptance Sampling Plan
- ⇒ Effect of Lot Size (N), Sample Size (n) and Acceptance Number (Ac) on OC Curve
- ⇒ Type of Risks
- ⇒ Classification of Defects / Defectives
- ⇒ Inspection Level
- ⇒ Common Attribute Plan - ANSI/ASQ Z1.4 or ISO2859-1 Sampling Tables
  1. Single Sampling
  2. Double Sampling
- ⇒ Switching Procedures - Normal, Reduced and Tightened Sampling Plan
- ⇒ Features of a good Acceptance Sampling Plan





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- ⇒ Common Variable Plan – ANSI/ASQ Z1.9 or ISO3951 Sampling Tables
- ⇒ Other types of Sampling Plan – Continuous Sampling Plan (CSP1 & CSP2), Chain Sampling and etc...

## DURATION

2 Days

## WHO SHOULD ATTEND

Managers and Engineers from Production and Quality Departments. Statistician, Purchasing and Marketing executives will also find this course relevant to their job function.

## CLASS SIZE

Maximum 20~25

## METHODOLOGY

- ⇒ Course Notes
- ⇒ OHP
- ⇒ Exercise
- ⇒ Lecturettes
- ⇒ Case Study

