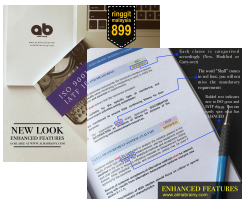


# IATF 16949 REFRESHER SERIES

ISO9001  
requirements  
are included **FOC**



## the most comprehensive package



- 5 core tolls series are designed to focus on frequently asked questions by auditors, basic notes and lectures are skipped and focus on key concepts so the number of training days can be reduced by half.
- ISO and IATF requirements are delivered in pictorial and grafical form for better understanding. No more going through the standard line by line.
- Validation of all 18 Documented Process + Documented System as required in IATF 16949.
- Review all 11 mandatory records in IATF 16949.
- Evaluation of all 16 mandatory documented information as required by IATF 16949.
- Mapping all new and modified elements of ISO9001 and IATF 16949.

**FREE!!!** See page 9

# THIS PACKAGE CONSIST OF 6 COURSES...



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from each course

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# SYNOPSIS

## 7.1.5.1.1 MEASUREMENT SYSTEM ANALYSIS

IATF  
MODIFIED

Statistical studies **shall** be conducted to analyse the variation present in the results of each type of **inspection**, measurement, and test equipment system **identified** in the control plan. The analytical methods and acceptance criteria used shall conform to those in reference manuals on Measurement Systems Analysis. Other analytical methods and acceptance criteria may be used if approved by the customer.

**Records of customer acceptance of alternative methods shall be retained along with results from alternative measurement systems analysis (see section 9.1.1.1)**

**Note: Prioritization of MSA studies should focus on critical or special product or process characteristics**



### Clause Categorisation

- For better understanding each clause has been categorised as the following:-
  - Carry forward from previous standard.
  - Modified clauses from previous standard.
  - Newly introduced clause.

### Mandatory Requirements

The word "shall" is printed in red. By just a glimpse you'll will notice what has been stressed as "mandatory" in the standard.

### Bolded Text

- Some wordings are printed in bold.
- This indicates additional and/or new requirements added into the the standard.

## Pictorial Explanation

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### Clause 6.1.2.3 – Contingency Plan (IATF)

Internal and external risk to be identified in order to **maintain production output** and to ensure that **customer requirements** are met;

Mfg process & infrastructure equipment

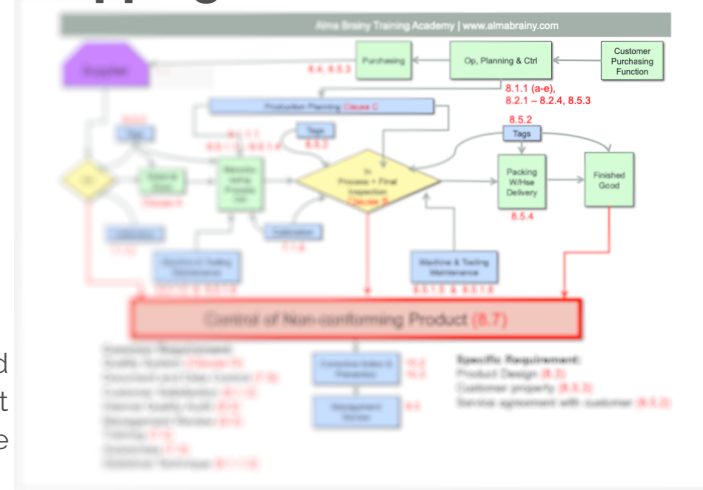
Output/Supply

Organization Shall-

- Based on risk and impact to the customer.
- Inform customer & interested parties to what extent and duration they will be impacted.
- Periodically test the contingency plans for effectiveness.
- Multidisciplinary team including top management shall review contingency plan (at min annually) and update as required.
- Document the contingency plans and retain DOCUMENTED INFORMATION describing any revision(s), including the person(s) who authorized the change(s).
- Validate the manufactured product after the re-start of production following an emergency.

The lengthy wording from the standard has been transformed into pictorial and graphical explanation for easy understanding .

## Mapping of Each Clause



## SYNOPSIS

# IATF AND ISO REQUIREMENTS

2.5-day course

in-house

0900-1700

25pax (max)

## OVERVIEW

- ISO and IATF is combined into 2.5 days course.
- Reduction in training days is possible due to the standard has been summarized in pictorial form rather than going through the standard line by line.
- Focus given on clauses that is prone to NC findings.
- Best practices are shared during the session.
- **Claim your FREE gift upon enrolling. See Page 9**

# KEY DELIVERABLES


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### 7.1.5.1.1 MEASUREMENT SYSTEM ANALYSIS IATF MODIFIED

Statistical studies **shall** be conducted to analyse the variation present in the results of each type of **inspection**, measurement, and test equipment system **identified** in the control plan. The analytical methods and acceptance criteria used shall conform to those in reference manuals on Measurement Systems Analysis. Other analytical methods and acceptance criteria may be used if approved by the customer.

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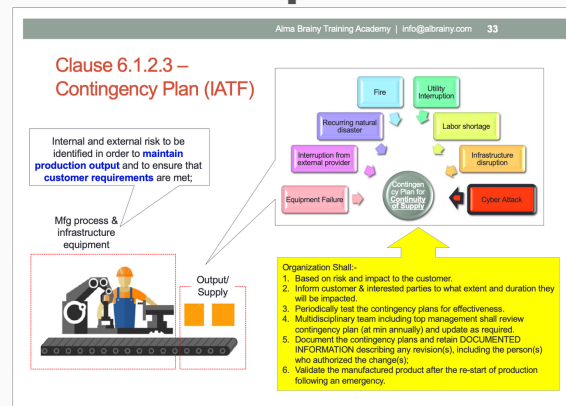
*Note: Prioritization of MSA studies should focus on critical or special product or process characteristics*



## Mandatory

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## Pictorial Explanation



The lengthy wording from the standard has been transformed into pictorial and graphical explanation for easy understanding .

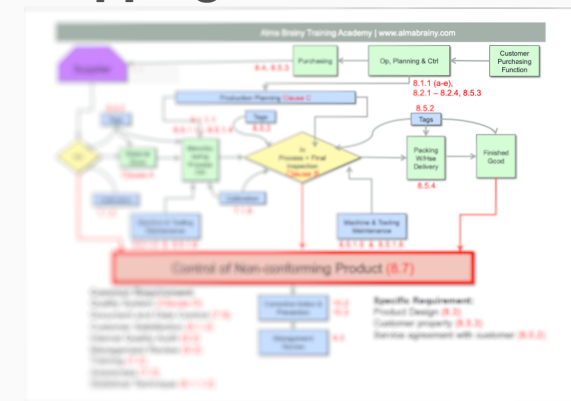
## Clause Categorisation

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  - Carry forward from previous standard.
  - Modified clauses from previous standard.
  - Newly introduced clause.

## Bolded Text

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- This indicates additional and/or new requirements added into the the standard.

## Mapping of Each Clause



Each clause is mapped with its relevant operation in in the entire manufacturing process

## SYNOPSIS

# SPC

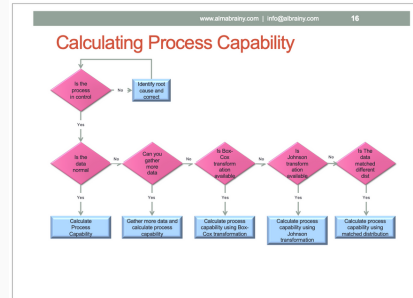
1-day course  
in-house  
0900-1700  
25pax (max)

## OVERVIEW

- Training duration reduced to **one-day**.
- All basic training content like mathematical calculation, basic concept of statistics are dropped.
- Focus is given to SPC application and implementation in manufacturing industry.
- A complete review of how to deal with day to day issues related to SPC understanding and application.

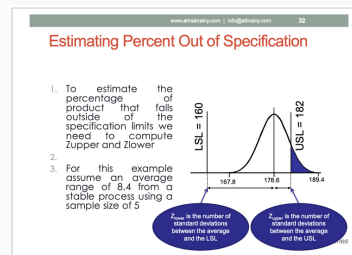
# KEY DELIVERABLES

## LEARN TIPS AND TACTICS



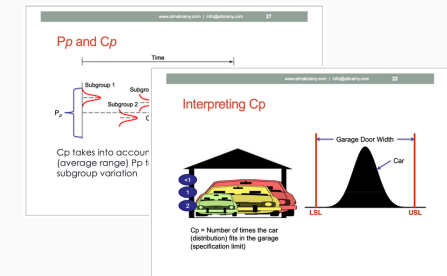
- Not all process has a capability index. Learn at what scenario a capability index **shall** and **shall not** be calculated.
- Understand the process flow in order to deal with **abnormal data** before calculating process capability.
- Learn how to answer **customer** and/or **auditor** if they insist for capability index.

## MANIPULATING CPK INDEX



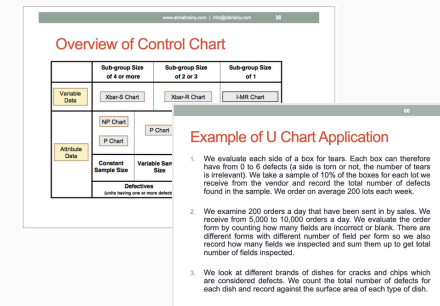
- Make full use of your Cpk index. Predict the yield trend and/or your supplier delivery performance by just evaluating the Cpk value.

## PICTORIAL EXPLANATION



- Easy to understand using pictorial explanation to **calculate** and **differentiate** Cp, Cpk and Pp, Ppk.
- Thoroughly explained the usage of Cpk or Ppk in PPAP submission.

## MAP THE CONTROL CHART



- It is wrong to say only process with variables data can be control via SPC.
- Learn various types of control chart and its utilization

## SYNOPSIS

# MSA

1-day course  
in-house  
0900-1700  
25pax (max)

## OVERVIEW

- Training duration reduced to **one-day**.
- All basic training content like mathematical calculation, basic calculation in MSA are dropped.
- Focus is given on interpreting MSA results via 6-pax graphs.
- A complete study on attribute MSA (new requirements in IATF 16949).

# KEY DELIVERABLES

## VARIABLES MSA RESULT INTERPRETATION

- A complete guide on how to interpret the Variables MSA result together with examples and graphical explanation.
- Example are given for both "Good" and "Bad" condition.

## FULL UNDERSTANDING OF ATTRIBUTE MSA (NEW REQUIREMENT IN IATF 16949)

- Attribute MSA has been made mandatory in IATF 16949.
- Focus is given on performing attribute MSA and interpreting the results.
- Excecise on calculating Kappa value.

# SYNOPSIS

# FMEA

2-day course (or 1-day course for AIAG FMEA) in-house  
0900-1700  
25pax (max)

# OVERVIEW

- New course that requires two-full day of training.
- Focus is given on the new elements in VDA-AIAG manual.
- Training is done in a workshop-based environment.
- Example of an actual VDA-AIAG VDA is shared with the participants..

# KEY DELIVERABLES

## INTRODUCING THE 7 STEPS APPROACH

### The 7 Steps Approach

- The revised FMEA process is now represented in six steps against the normal 7 step approach.

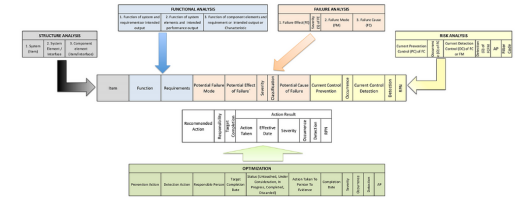
  - i. Step 1: Scope, Definition and Project Planning
  - ii. Step 2: Structure Analysis
  - iii. Step 3: Function Analysis
  - iv. Step 4: Feature Analysis
  - v. Step 5: Risk Analysis
  - vi. Step 6: Optimization
  - vii. Step 7: Documentation



- Learn the 7 steps of FMEA approach as introduced by VDA & AIAG.
- Construct the FMEA via these steps.

## VDA-AIAG FMEA MAPPING

### Comparison Between 4<sup>th</sup> Edition AIAG FMEA and AIAG VDA FMEA 1<sup>st</sup> Edition



- FMEA mapping is the easiest way to help participant to understand how is the new VDA-AIAG FMEA to be constructed.

## FULL EXPLANATION ON AP TABLE (COPY PROVIDED)

### Recommended AP Table

Effect	Position of Failure Cause Occurring	Ability to Detect	ACSIQ <sup>1</sup> / RPN <sup>2</sup> / Comments
Very High	High	Very High	Very High
		High	High
		Medium	Medium
		Low	Low
High	Medium	Very High	High
		High	Medium
		Medium	Low
		Low	Very Low
Medium	Low	Very High	Medium
		High	Low
		Medium	Very Low
		Low	Extremely Low
Low	Very Low	Very High	Low
		High	Very Low
		Medium	Extremely Low
		Low	Extremely Low

- RPN has been replaced by AP table.
- Full analysis and explanation on understanding the AP table.

## REDEFINING S,O & D (COPIES PROVIDED)

Effect	Position of Failure Cause Occurring	Ability to Detect	ACSIQ <sup>1</sup> / RPN <sup>2</sup> / Comments
Very High	High	Very High	Very High
		High	High
		Medium	Medium
		Low	Low
High	Medium	Very High	High
		High	Medium
		Medium	Low
		Low	Very Low
Medium	Low	Very High	Medium
		High	Low
		Medium	Very Low
		Low	Extremely Low
Low	Very Low	Very High	Low
		High	Very Low
		Medium	Extremely Low
		Low	Extremely Low

- S,O & D have been completely redefined.
- Each definition will be explained thoroughly.



## SYNOPSIS

# APQP & PPAP

1-day course for each  
in-house

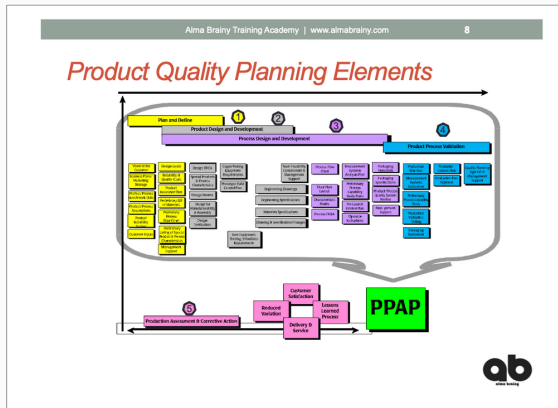
0900-1700

25pax (max)

## OVERVIEW

- Training duration reduced to **one-day**.
- APQP and PPAP are interrelated, thus these tools are now combined into 1 single course (1 day each course)
- Focus is given on 5 phases of APQP and how it relates to PPAP requirements.
- Real example of APQP & PPAP will be reviewed.

# KEY DELIVERABLES



## COMBINING APQP AND PPAP AS ONE COURSE

- Combine APQP and PPAP in one course to ensure fluidity of knowledge transfer within these two subject.
- Map how and where the PPAP element take place throughout the five phases of APQP.

## SUMMARIZING THE BLUE BOOKS

- All the important points from the AIAG blue books were summarised, highlighted and presented in point form for easy understanding.

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<b>Section 3 – Customer Notification</b>  1. The organization shall notify the authorized customer representative of any planned changes to the design, process, or site.  2. Upon notification and approval of the proposed change by the authorized customer representative, and after change implementation, submission is required unless otherwise specified	1 - Use of other construction or material than was used in the previously approved part or product
	2 - Production from new or modified tools (except perishable tools), dies, molds, patterns, etc. including additional or replacement tooling
	3 - Production following upgrade or rearrangement of existing tooling or equipment
	4 - Production from tooling and equipment transferred to a different plant site or from an additional plant site
	5 - Change of supplier for parts, non-equivalent materials, or services (e.g. heat treating, plating)
	6 - Product produced after the tooling has been inactive for volume production for twelve months or more
	7 - Product and process changes related to components of the production product manufactured internally or manufactured by suppliers
	8 - Change in test / inspection method - new technique (no effect on acceptance criteria)
	9 - New source of raw material from new or existing supplier
	10 - Change in product appearance attributes

## REVIEW OF ACTUAL APQP & PPAP

- Several PPAP example from various manufacturer and automaker will be reviewed.
- Lesson learnt from these APQP and PPAP are to be discussed with participants.

# GET THIS BOOKLET FOR FREE

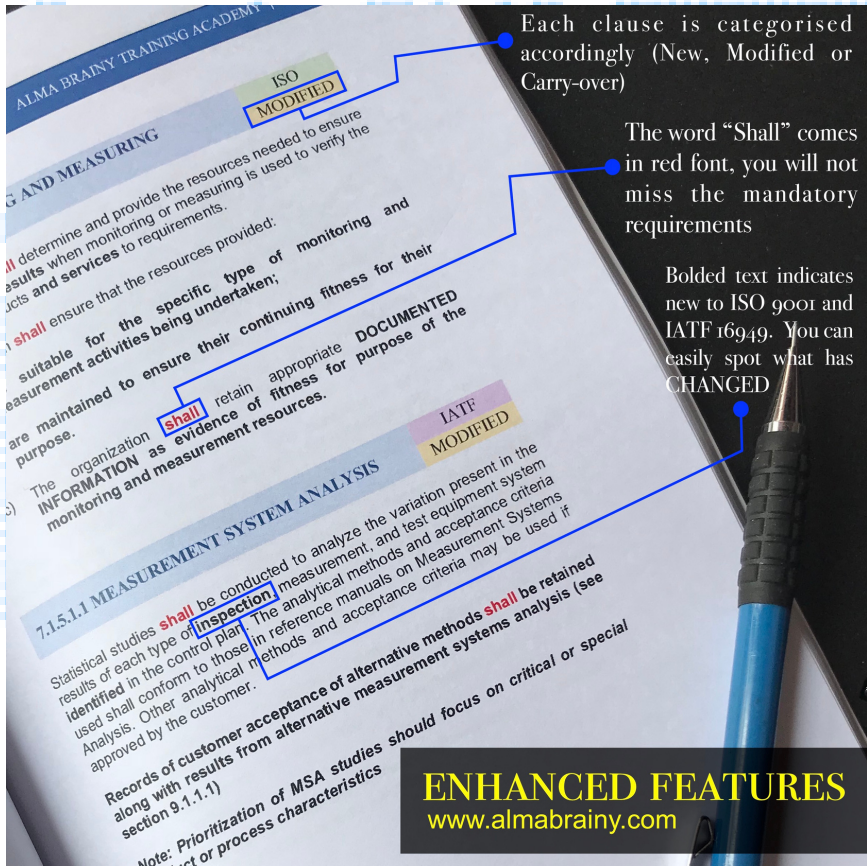


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## by enrolling the ISO & IATF Requirements Course



Each clause is categorised accordingly (New, Modified or Carry-over)

The word "Shall" comes in red font, you will not miss the mandatory requirements

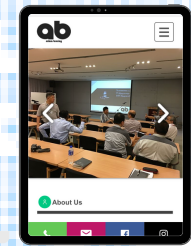
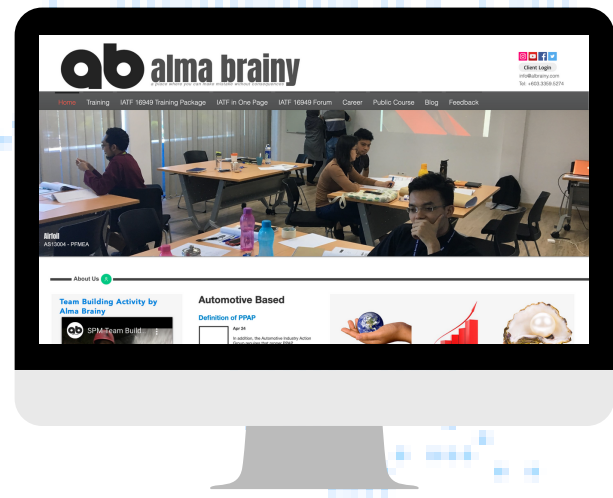
Bolded text indicates new to ISO 9001 and IATF 16949. You can easily spot what has CHANGED

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