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## Overview

This standard covers the skills and knowledge required to carry out inspection and testing activities according to defined operating procedures.

It involves gathering and preparing samples of materials and products for inspection and testing to ensure that they comply with the quality control requirements. This will involve checks and tests such as visual checks for defects and appearance, checks for dimensional accuracy and tests of product specification that may be carried out by yourself or sent to other departments for specific analysis.

Your responsibilities will require you to comply with organisational policy and procedures for the activities undertaken, and to report any problems with the activities that you cannot personally resolve, or are outside your permitted authority, to the appropriate people. You will be expected to work with a minimum of supervision, taking personal responsibility for your actions and the quality and accuracy of the work that you carry out. You will also be expected to complete any necessary documentation accurately and legibly.

Your underpinning knowledge will be sufficient to provide a sound basis for your work, and to adopt an informed approach to applying the required inspection and testing procedures. You will understand the principles of gathering samples in order to confirm the quality of the production in an adequate depth to provide a sound background for carrying out the activities.

You will understand the safety precautions required when working with the manufacturing equipment and when taking, inspecting and testing the required samples. You will be required to demonstrate safe working practices throughout, and will understand the responsibility you owe to yourself and others in the workplace.

This standard on confirming quality of production involves:

1. gathering samples at the appropriate level of frequency
2. preparing the samples for inspection and testing
3. carrying out the inspection and testing activities
4. reporting unsolvable problems, or problems that you are not responsible for, to the appropriate person
5. working in ways which maintain the safety of yourself and others

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## Carrying out inspection and testing activities

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### Performance criteria

- You must be able to:*
- P1 work safely at all times, complying with health and safety, environmental and other relevant regulations, directives and guidelines
  - P2 obtain and follow the correct job instructions and any relevant quality control specifications
  - P3 take samples of the production output at the required frequency and in line with the inspection specification and operating procedures
  - P4 handle and store the samples safely and correctly in keeping with the quality control procedures
  - P5 prepare samples for inspection and testing in line with the defined procedures
  - P6 carry out the inspection and testing activities using the specified methods and equipment
  - P7 report any problems that you cannot solve or are outside your permitted authority to the appropriate person

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## Carrying out inspection and testing activities

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### Knowledge and understanding

*You need to know and understand:*

- K1 the relevant health and safety requirements of the work area in which you are carrying out the sampling and inspection/testing activities
- K2 the specific safe working practices, sampling collection, testing procedures and environmental regulations that need to be observed
- K3 the hazards associated with carrying out the sample collection and inspection and testing procedures and how can they be minimised
- K4 what personal protective equipment (PPE) needs to be used during the sampling and inspection / testing activities and where can it be obtained
- K5 how to obtain the necessary job instructions, sampling equipment, inspection and testing procedures and quality control specifications that are used, and how to interpret them
- K6 how to carry out the sampling activities in line with the production and quality control procedures including first off, random, defined and final sampling procedures
- K7 why it is important to follow the specified sampling sequence and inspection and testing procedure at all times
- K8 the specific sampling and inspection and testing equipment to be used, and the precautions to be taken when handling and using it
- K9 what factors may make the equipment, or the samples obtained unsuitable for the testing or inspection activities
- K10 the correct methods of preparing, handling and storing the samples
- K11 how to carry out an inspection or testing of sample materials and products in line with operating and quality control procedures
- K12 potential problems associated with stages of the inspection and testing process, how they occur and how they can be corrected
- K13 how to deal with problems which affect aspects of sample collection, inspection and testing activities and the interpretation of the results
- K14 how to report any problems you are not able to deal with yourself and why it is important to report faults, variations or problems immediately
- K15 what your responsibilities are with regard to the reporting lines and procedures in your working area
- K16 who the appropriate people are and what are their responsibilities within your working area

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### Additional Information

#### Scope/range related to performance criteria

You must be able to:

1. Follow the relevant inspection and testing procedures and safety requirements to include **all** of the following:
  - 1.1. health and safety and environmental regulations
  - 1.2. machinery/equipment safety procedures
  - 1.3. company standards and procedures
  - 1.4. safe working practices
  - 1.5. quality control job instructions
  
2. Collect production samples in relation to **one** of the following manufacturing methods:
  - 2.1. hand manufacturing operations
  - 2.2. fully automated machine operations
  - 2.3. manually operated machine operations
  - 2.4. combined manufacturing operations
  - 2.5. computer controlled operations
  
3. Carry out sampling activities to include **both** of the following sampling procedures:
  - 3.1. random
  - 3.2. defined (such as first/final)
  
4. Work in line with **all** of the following aspects of the inspection specification:
  - 4.1. use the correct method of sampling
  - 4.2. use the correct source of sample
  - 4.3. obtain the required number of samples
  - 4.4. take samples at the correct time/frequency
  - 4.5. obtain the correct size of samples
  
5. Carry out checks of the samples to include **two** of the following as is appropriate to the process:
  - 5.1. visual inspection
  - 5.2. analysis testing
  - 5.3. functional operation
  - 5.4. measurement
  - 5.5. other specific method
  
6. Report problems that you cannot solve and or outside your permitted authority to the appropriate person to include **one** of the following:
  - 6.1. team leader
  - 6.2. production supervisor

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6.3. quality control supervisor

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<b>Developed by</b>	SEMTA
<b>Version number</b>	2
<b>Date approved</b>	February 2016
<b>Indicative review date</b>	March 2019
<b>Validity</b>	Current
<b>Status</b>	Original
<b>Originating organisation</b>	SEMTA
<b>Original URN</b>	SEMPMO222
<b>Relevant occupations</b>	Engineering and manufacturing technologies; Manufacturing technologies; Process, Plant and Machine Operatives; Process Operatives
<b>Suite</b>	Performing Manufacturing Operations Suite 2
<b>Key words</b>	joining; manufacturing; operations; equipment; machine; hand; tool; manually; automated; soldering; bonding; gluing; brazing; inspection; testing