



# **NVQ Level 2 for Packaging Operators**

## **Qualification Specification**

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## **Aim**

This national qualification aims to provide work-based learners with the skills, knowledge and understanding needed to package products to meet quality, safety, legal and cost requirements.

This qualification will be provided in accordance with SEMTA's *Packaging NVQ/SVQs Assessment Strategy* and the framework for *Packaging Operator: N/SVQ Level 2*.

## **Outcomes**

In setting out a clearly-defined level of learner achievement, this qualification will:

1. Enhance the competence and job satisfaction of *learners* and provide them with a means of progression to higher level qualifications, as well as job movement throughout the packer/filler sector and other related areas of the packaging industry.
2. Provide *employers* with an open and transparent basis for judging the suitability of candidates for employment and promotion.

Specific outcomes for each Unit of the qualification are listed under the individual unit descriptions.

## **Target group**

This Level 2 qualification is designed for individuals who work on automated or manual packaging lines. Some lines are highly automated and run at high speeds. Problems which arise must be identified and addressed quickly and effectively, so that down-time is minimised.

Line operators work as part of a team, with guidance and/or supervision, and they are required to carry out one or more tasks associated with packaging operations from the preparation of materials and equipment prior to starting the line, through production of finished products, to line close down. They need to build up skills and knowledge specific to these tasks, so that finished products are of acceptable quality. Often it is important that hygiene requirements are understood and hygiene standards adhered to throughout all stages of the packaging operation. At the same time there is the need to work in a safe manner and observe all relevant health, safety and environmental rules and regulations as specified by the organisation.

## **Entry requirements**

There are no entry qualifications or age limits required for these qualifications but candidates will be working on packaging lines,

Assessment for the N/SVQs is open to any candidate who has the potential to reach the standards laid down for these qualifications. As a guide those with the following are likely to indicate the potential to succeed. NVQ Level 1 qualifications, a minimum of 5 GCSEs at Grade D-G (or equivalent), or experience that indicates ability to succeed. An initial assessment of past experience and current skills, knowledge and understanding should be carried out prior to commencement, to determine suitability for this qualification.

Aids or appliances, which are designed to alleviate disability, may be used during assessment, providing they do not compromise the standard required.

### **Progression**

Success in this qualification prepares learners for progression to a position where they can carry out supervision and training of others on packaging lines, or for progression to working on other related areas of packaging operations. The qualification also provides learners with an entry requirement to enrol on the Certificate in Packaging, or other Level 3 qualifications and then on to the Diploma In Packaging Technology and MSc In Packaging Technology programmes run by Loughborough and Brunel Universities.

### **Qualification Structure**

The qualification is made up of a core of three mandatory and three compulsory units and ten optional units. To achieve this NVQ Level 2 qualification learners must successfully complete the three mandatory and three compulsory units and two optional units. A special additional optional unit is also available as an endorsement.

#### **Mandatory Units:**

<b>Unit</b>	<b>Title</b>
4.7	Work safely
4.12	Work effectively in a team
4.18	Respond to incidents, hazardous conditions and emergencies

#### **Other Compulsory Units**

*Either*

<b>Unit</b>	<b>Title</b>
3.1	Start packaging operations
3.4	Control packaging operations
3.10	End packaging operations

*Or*

<b>Unit</b>	<b>Title</b>
3.14	Start specialist packaging run
3.15	Control specialist packaging run
3.16	Stop specialist packaging run

#### **Optional Units:**

<b>Unit</b>	<b>Title</b>
3.5	Control printed materials
3.6	Control materials movement
3.7	Carry out routine machine changeover
3.8	Produce by process operation
3.9	Solve processing problems
3.11	Prepare for packaging testing or sampling

- 3.12 Carry out packaging testing or sampling
- 3.13 Record packaging testing or sampling
- 4.8 Maintain hygiene standards in handling and storing food products
- 4.9 Prepare and clean area and equipment
- 4.10 Work in aseptic or clean room conditions
- 4.11 Work with hazardous materials
- 4.13 Enable learning through demonstration and instruction
- 4.15 Contributing to improving effectiveness in the workplace

### **Assessment Strategy**

This assessment strategy is based on SEMTA's assessment strategy for its new suite of qualifications in packaging. SEMTA's strategy takes into account the Qualification and Curriculum Authority (QCA) and Scottish Qualifications Authority (SQA) assessment criteria. (see *Packaging NVQ/SVQs Assessment Strategy*, 21 June 2005, copies available from SEMTA)

#### *Sources of evidence –*

Judgments about the performance of individual candidates should be made against specified criteria which relate to the way in which National Occupational Standards included in this specification are applied in the workplace.

There are many potential sources of evidence through which workplace competence may be judged. However, for this NVQ the most common are likely to be

- Products
- Oral questions
- Observation
- Written questions
- Reflective accounts
- Audio tape interviews
- Witness statements\*
- Discussions with the candidate
- Simulations \*\*

*\* Witness Statements – all witness statements should relate to the performance of specific tasks or a series of tasks carried out on agreed occasions. General witnessing of practice is not permissible. Please seek advice from your External Verifier if you are in any doubt*

*\*\* Simulations - the focus of this NVQ is on workbased performance and simulations should only be used where a candidate does not have the opportunity to collect evidence through their normal course of work. The use of simulations for assessment purposes has to be agreed in writing with a PIABC External Verifier*

If there is any doubt as to what constitutes suitable evidence, the external verifier should be consulted.

In deciding how much evidence is needed to assess a candidate, two things in particular need to be born in mind.

- The need to ensure that there is sufficient evidence to demonstrate consistency of performance at the required standard
- The need to ensure that the different circumstances in which a candidates will be asked to perform are covered by the assessment

**Therefore as a minimum, assessment should take place on at least three occasions across a range of different conditions.**

*Practical competence –*

Evidence of practical competence must be the main form of evidence gathered for this NVQ. Competent performance is more than just carrying out a series of individual set tasks. Many of the units contain statements that require the candidate to provide evidence that proves they are capable of combining the various features and techniques. Where this is the case, separate fragments of evidence would not provide this combination of features and techniques and will not, therefore, be acceptable as demonstrating competent performance. Therefore, evidence should be obtained as a whole where practically possible, since competent performance in some units is often dependent on competence in others.

Candidates are required to demonstrate competence in all contexts listed in each standard required to achieve the qualification. Competence should be demonstrated by performance, and exceptionally, by knowledge where the candidate's role limits their opportunity to demonstrate their competence by performance.

The most effective way of assessing competence, especially for the performance statements in relation to contexts, is through direct observation of the candidate. Assessors must make sure that the evidence provided reflects the candidate's competence and not just the achievement of a training programme.

Evidence that has been produced from team activities is only valid when it clearly relates to a candidate's specific and **individual** contribution to the activity, and not to the general outcome(s).

Items of performance evidence often contain features that apply to more than one unit, and can be used as evidence in any unit where appropriate.

Evidence of practical competence must be a combination of:

- products of the candidate's work, such as items that have been produced or worked on, and documents produced as part of a work activity

together with:

- evidence of the way the candidates carried out the activities such as witness testimonies, assessor observations or authenticated candidate reports, records or photographs of the work/activity carried out, etc.

If there is any doubt as to what constitutes suitable evidence, the external verifier should be consulted.

*Assessing knowledge and understanding -*

Knowledge and understanding are key components of competent performance, but it is unlikely that performance evidence alone will provide enough evidence in this area. Where the candidate's knowledge and understanding (and the handling of contingency situations) is not apparent from performance evidence, it must be assessed by other means and be supported by suitable evidence.

Knowledge and understanding can be demonstrated in a number of different ways, but it is suggested that the most appropriate methods for these qualifications are oral

questioning and/or practical demonstrations in the workplace. Assessors should ask enough questions to be able to determine that the candidate has an appropriate level of knowledge and understanding as required by the unit.

The achievement of the specific knowledge and understanding requirements of the standards cannot simply be inferred by the results of tests or assignments from other qualifications or training programmes. Where evidence is submitted from these sources, the assessor must, as with any assessment, make sure the evidence is valid, reliable, authentic, directly attributable to the candidate, and meets the full knowledge and understanding requirements of the standard.

Where oral questioning is used, the assessor must retain a record of the questions asked, together with the candidate's answers.

*Additional Information –*

PIABC has published separately an assessment booklet that provides sample assessments that cover each unit. Centres are not required to use these assessments. If they wish they may develop their own assessments specifications with the written agreement of their External Verifier.

For more information on assessment refer to PIABC's *Guidance Notes for Assessment and Internal Verification of PIABC Candidates Following NVQ Programmes*.

## **Unit Descriptions**

For each Unit there now follows:

- Unit number and title and a list of the individual Elements which make up the Unit. To successfully complete a Unit, learners must demonstrate competence in all Elements of that Unit.
- Unit overview
- Performance criteria (competence) and underpinning knowledge requirements for each Element.

## **Unit 3.1**                      **Start Packaging Operations**

### Unit Overview

This Unit contains the following elements:

- 3.1.1    Ensure readiness of the area and equipment
- 3.1.2    Ensure materials are available
- 3.1.3    Carry out pre-start-up checks

The Unit sets out the basic requirements which must be met before starting work on a packaging line.

The overall requirement is that the line is safe and ready to produce acceptable quality finished packs at the required rate of production and line efficiency.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to show that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- a multi-stage operation on either a fully automated line or a semi-automated line
- primary, secondary, tertiary and security equipment
- documentation or packaging instructions, written packaging records and computer-based packaging records
- problems associated with documentation, services, area and equipment and faults in production quality
- checks of the area, equipment and operating conditions

**Element 3.1.1 Ensure readiness of the area and equipment**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Check thoroughly that the area of the packaging operation and all line equipment is:	What is the extent of the area of the packaging operation and the pieces of equipment which must be checked
a. clear of potential contaminants	Specified procedures for clearance What are the potential contaminants (physical, chemical and microbiological) which could adversely affect the line operation and/or the quality, safety and legality of the packed product
b. cleaned to the required standard	Specified procedures for cleaning including: <ul style="list-style-type: none"> <li>• equipment to be used</li> <li>• cleaning materials to be used</li> <li>• precautions to be taken</li> <li>• checks to be carried out</li> </ul>
	How to confirm line clearance Consequences of not carrying out thorough checks on line clearance and cleanliness
Check thoroughly that the services required to start up and run the packaging operation are available	What services are required and what are their required values, e.g. voltage, air pressure, air quality How to turn on and check each service required
Check thoroughly that the area of the packaging operation and all line equipment are prepared for use	What is the extent of the area of the packaging operation and the pieces of equipment which must be prepared How to prepare each piece of equipment required What safety devices must be checked and how these checks must be carried out Consequences of not thoroughly checking all preparations
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member The procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
Complete all required documentation accurately and legibly and at the required	How to deal with problems What documentation is to be used and how to obtain it

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time	
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.1.2 Ensure materials are available**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Check thoroughly that all specified materials (including product to be filled) are available in stock, at the right quantity and quality	What materials are required (e.g. as listed on the Bill of Materials) and how to access this information
	What is the quantity of each material required and the rate at which it will be required to complete the shift, order or batch
	How to confirm the quality status of each material
	Consequences of not checking availability of all specified materials
Check off all materials against documentation (e.g. Bill of Materials) as correct	What materials and how much of each should be present
	How to interpret the documentation accompanying the materials
	How to confirm and record the identity, (including batch numbers for traceability) quantity and quality status of each material
	Consequences of not checking all materials correctly
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	The procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.1.3 Carry out pre-start-up checks**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Load the equipment/line with the correct materials and in the correct manner	What materials are required How to unwrap and prepare materials for loading What is the correct way to load each material Consequences of incorrectly loading materials
Produce sample packs of finished product for approval	How to set machine controls How to record machine settings What is the start up sequence How to produce sample packs and how many sample packs are required What are the acceptable standards and limits of acceptability of packs How to check the acceptability of sample packs, including: <ul style="list-style-type: none"> <li>• Correct materials used</li> <li>• Correct product and quantity</li> <li>• Correct date code and batch data</li> </ul> How to carry out calibration checks How to carry out adjustments to produce acceptable sample packs Who gives final approval to run and how this approval is given How to lock machine settings to prevent accidental/unauthorised adjustments Consequences of failing to gain approval of sample packs before starting production
Segregate acceptable and unacceptable materials and packs correctly	How to dispose of waste/unacceptable materials and packs to prevent misuse How to handle acceptable packs from start up operations Consequences of failing to segregate materials and packs correctly
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member The procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>

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	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be completed and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 3.4**

## **Control Packaging Operations**

### Unit Overview

This Unit contains the following elements:

- 3.4.1 Commence packaging run
- 3.4.2 Pack products
- 3.4.3 Hand over the operation
- 3.4.4 Stop packaging run

The Unit sets out the requirements to operate a packaging line, following production of acceptable quality sample packs which are signed off as approved. Throughout the operation of the line there will be a need to carry out frequent checks on materials and finished packs to ensure quality standards are being met.

It is essential that all actions listed in Unit 1 under 'Practical competence' are completed before commencing any actions listed in this Unit.

The overall requirements are that the line is safe and that acceptable quality finished packs are produced at the required rate of production and line efficiency.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to show that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- a multi-stage operation on either a fully automated line or a semi-automated line
- visual checks of packs, product security and safety
- procedures relating to legal requirements and quality standards
- problems with equipment, materials and packs
- primary, secondary and tertiary packs
- face to face handovers, within teams or with someone in another team, during the working period and at the end of the working period
- documentation referring to packaging and packaging records

**Element 3.4.1 Commence packaging run**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Confirm that the correct services, equipment and materials are ready for use in line with the production plan	How to interpret the production plan
	What services are required and what are their required values
	What equipment and materials are required
	How to verify against documentation that the materials are sufficient
	Consequences of failing to confirm readiness in line with the production plan
Confirm that the pre-start-up checks have been completed correctly	What is the correct pre-start-up procedure
	Consequences of failing to confirm that the pre-start-up checks have been completed correctly
Confirm approval of sample packs from start of packaging operations	Approval procedure which must have been completed before start-up, including sign-off of sample packs
	Where the approved sample packs are located
	Consequences of failing to confirm approval of sample packs before starting production
Start operations in a timely manner	What are the acceptable time limits for completion of each task
	Consequences of not operating within the set time limits
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	The procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given

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	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.4.2 Pack products**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Pack products to the required specification	How to access the required specification How to interpret specifications/orders/instructions How to operate each piece of equipment and make any necessary adjustments How to record any adjustments and lock machine settings to prevent accidental/unauthorised adjustments What are the effects of changes to one piece of equipment on the packaging line operation How and with what frequency to carry out routine checks on packaging materials and finished packs and how to determine acceptability When it is necessary and how to take samples of packaging materials and finished packs from the line How and when to make an unscheduled stop to the packaging operation Consequences of failing to observe the requirements of the specification, order and/or instructions
Pack products at the required rate of production, line efficiency and wastage	What is the expected output rate, line efficiency and level of wastage How to measure/read output rate, line efficiency and wastage How to monitor and maintain the availability of materials and product Consequences of not meeting the required rate of production, line efficiency and wastage
Segregate acceptable and unacceptable materials and packs correctly	How to identify and segregate waste/unacceptable materials and packs to prevent misuse Consequences of failing to segregate materials and packs correctly
Prepare packs for transfer correctly	How to prepare packs for transfer Consequences of failing to transfer packs correctly
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including:

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	<ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.4.3 Hand over accept the operation**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Hand over the packaging operation correctly and within the required timescale	What is the procedure for hand over  In what condition the area of the packaging operation and the equipment must be at hand over When must the handover be completed How to bring the area and the equipment to the required condition Consequences of failing to hand over the operation correctly and within the required timescale
Report accurately the current status of the packaging operation to the incoming operator/team	How to supply the information and how to emphasise the most significant points  What information is required by the incoming operator/team and what is most significant Consequences of failing to give accurate information to the incoming team
Take over the packaging operation from the outgoing operator/team, smoothly and efficiently	How to obtain and interpret information on the current status of the packaging operation What is the required standard of operation, output rate, line efficiency and level of wastage What are the required quality standards Where the approved sample packs are located Consequences of not taking over smoothly and efficiently
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it  What information is required When the documentation must be

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	completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.4.4 Stop packaging run**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Prepare to stop the packaging run correctly	What is the stopping procedure
	When should you prepare to stop the line
	How long will the procedure take to complete
Leave the area of the packaging operation and the equipment in the correct condition	Consequences of failing to stop the packaging run correctly
	In what condition the area of the packaging operation and the equipment must be left
	How to bring the area of the packaging operation and the equipment to the required condition
Identify and deal with problems effectively	Consequences of failing to leave the area of the packaging operation and the equipment in the correct condition
	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
Complete all required documentation accurately and legibly and at the required time	How to deal with problems
	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
The procedure for maintaining security of the documentation	

## **Unit 3.10**                      **End Packaging Operations**

### Unit Overview

This Unit contains the following elements:

- 3.10.1    Finish packaging
- 3.10.2    Prepare packs, materials and waste disposal
- 3.10.3    Reconcile materials
- 3.10.4    Ensure clearance of packaging line

The Unit sets out the requirements to close down a packaging line at the end of a shift, production order or batch, such that the line is cleared and ready for use as required.

It is essential that all actions listed in Units 1 and 2 under 'Practical competence' are completed before commencing any actions listed in this Unit.

The overall requirements are that the packaging operation is ended safely and that the quality safety and legality of any packed product is not adversely affected.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to show that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- a multi-stage operation on either a fully automated line or a semi-automated line
- end of a batch, end of a product run, end of a specific order
- documentation relating to packaging instructions and packaging records
- procedures relating to legal requirements and quality standards
- problems associated with documentation and packs, and incorrect information and counts
- reconciliations when achieved within limits and outside limits
- bulk products and packaging components

**Element 3.10.1 Finish packaging**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Prepare to finish packaging	When the current production order or batch will be completed What quantity of materials is needed to complete the order or batch
Bring the packaging line to a halt safely and in the correct manner	Procedure for stopping the line, including the order of close down of each machine in the line How to turn off each machine and the line services Consequences of not stopping the line safely and in the correct manner
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed To whom the completed documentation must be given The prescribed way of making any alterations to documents The procedure for maintaining security of the documentation

**Element 3.10.2 Prepare packs, materials and waste disposal**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Prepare good packs for removal in the correct manner	What is the required standard of acceptable quality packs for removal, including labelling, stacking and wrapping requirements What is the quantity of packs (primary/secondary /tertiary to be removed Consequences of inadequately preparing good packs for removal
Prepare good materials for removal in the correct manner	How to check all areas for excess materials What is the required standard of acceptable quality materials and product for removal, including labelling, stacking and wrapping requirements Consequences of inadequately preparing good materials for return/transfer to store
Remove good packs, materials and product in the correct manner	How to remove packs, materials and products, so that identity and batch traceability are maintained and all items are kept in acceptable condition Consequences of failing to maintain traceability
Dispose of waste materials and packs correctly	How to dispose of waste materials and packs to prevent misuse How to quantify, collate and label waste materials and packs Consequences of failing to dispose of materials and packs correctly
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed To whom the completed documentation

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	must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.10.3 Reconcile materials**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Calculate accurately the total number of good packs produced in the shift, production order or batch and reconcile with the expected quantity	What is the expected quantity for the shift, production order or batch Where to find the required data How to carry out the calculations Consequences of making inaccurate calculations
Calculate accurately the material and product wastage	What materials and products must be reconciled How much material and product was issued What is the quantity of material and product used in good products and what are the quantities transferred/returned to store Where to find the required data How to carry out the calculations Consequences of making inaccurate calculations
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed To whom the completed documentation must be given The prescribed way of making any alterations to documents The procedure for maintaining security of the documentation

**Element 3.10.4 Ensure clearance of packaging line**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Make safe all equipment in the line prior to line clearance	How is equipment defined as 'safe', i.e. what condition/set of conditions must prevail for the equipment to be safe
	How to make all equipment safe, including shut-off of services and allowance of required time for cool down of heated parts
	Consequences of not making all equipment safe
Locate and remove from the equipment in the line all residual materials, product and packs	What must be removed
	Where residual items are likely to be located
	How to safely and efficiently remove residual items
	Consequences of not removing residual materials, product and packs from each piece of equipment in the line
Locate and remove from the area of the packaging operation all residual materials, product and packs	What must be removed
	Where residual items are likely to be located
	How to safely and efficiently remove residual items
	Consequences of not removing residual materials, product and packs from the area of the packaging operation
Check thoroughly all equipment and the area of the packaging operation for clearance	In what condition the equipment and the area of the packaging operation must be left after line clearance
	How to carry out the clearance checks
Transfer good packs to storage and dispose of waste and excess materials correctly	Procedures for transfer and disposal
	Consequences of incorrect transfer and/or disposal
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> </ul>

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	<ul style="list-style-type: none"> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Unit 3.14 Start specialist packaging run**

**Context**

- 1 visual checks of packs, product security and safety
- 2 procedures relating to legal requirements and quality standards
- 3 problems with materials and packs
- 4 primary or secondary or tertiary packs
- 5 documentation referring to the packaging and packaging records

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
use the appropriate PPE and/or product-specific equipment/clothing	which PPE is appropriate and why
	any specialized protective equipment or clothing needed for the product and its use
check that the specified services and equipment are available and ready for use	how to confirm line clearance
	which pieces of equipment and materials are needed and are in place
	which documents to obtain and when
check that all specified products and materials are available in the required quantity at the correct time	which pieces of equipment and materials are needed and are in place
	the critical factors affecting product quality (eg temperature, humidity etc)
	any specific product handling requirements and sources of information eg hazard data sheets
	which documents to obtain and when
identify correctly all products and materials against documentation	how to verify against the documentation that the product and materials are correct
	how to complete product security/integrity checks
	which documents to obtain and when
ensure that the work area is suitably prepared and is ready for use	the authorized adjustment that can be made during the packaging run
	which documents to obtain and when
complete pre start-up checks according to the procedure	which documents to obtain and when
identify and deal with problems according to the procedure	which documents to obtain and when
	the acceptable time limits for the completion of tasks
	the procedures for reporting problems

	the methods for dealing with problems
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**Unit 3.15: Control specialist packaging run**

Unit summary

This unit contains the following elements:

- 3.15.1. Pack specialist product
- 3.15.2 Hand over the specialist packaging operation

To perform competently, you will need to show that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- checks of the packs (primary, secondary or tertiary), product security and safety
- procedures relating to legal requirements and quality standards
- problems associated with documentation, services, area and equipment and faults in production quality
- documentation or packaging instructions, written packaging records and computer-based packaging records.

**Element 3.15.1 Pack specialist product**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
use the appropriate PPE and/or product specific equipment/clothing	which PPE is appropriate and why
	any specialized protective equipment or clothing needed for the product and its use
pack the correct quantity of products to the correct specification	the critical factors affecting product quality (eg temperature, humidity etc)
	any specific product handling requirements and sources of information eg hazard data sheets
	how to interpret and identify packaging instructions
segregate and label correctly materials and packs which do not meet the specification	what are the labeling procedures
	the procedures for segregating materials and packs
maintain the required output rates	the rate at which you are expected to work
	how to monitor and maintain the levels of materials
keep the work area clean, tidy and secure in compliance with procedures	what are the expected levels of cleanliness for the work area
prepare the packs correctly for transfer	how to prepare packs for transfer
identify and deal with problems according to the procedure	what is the procedure for dealing with spillages
	how to monitor product security/integrity during packaging
	how to make adjustments according to the procedure
	how to handle and dispose of non-recoverable packs and materials
	the procedures for reporting problems
	the methods of dealing with problems
complete the required documentation	

accurately and legibly	
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**Element 3.15.2 Hand over the specialist packaging operation**

<i>Practical competence</i>	<i>Knowledge</i>
use the appropriate PPE and/or product specific equipment/clothing	which PPE is appropriate and why
	any specialized protective equipment or clothing needed for the product and its use
maintain the correct operational status when you have taken over responsibility	the operational quality standards required
report the current operational status accurately the correct time and place within the acceptable time limits, at	how to identify and emphasise significant information
follow the correct procedures when handing over to and receiving from someone else	what information is to be transferred and in what format
	the requirements of the handover procedure (both giving and receiving)
	how to maintain product security/integrity during the handover
identify and deal with any problems correctly and promptly	

**Unit 3.16 Stop specialist packaging run**

**Contexts**

- 1 visual checks of packs, product security and safety
- 2 procedures relating to legal requirements and quality standards
- 3 problems with materials and packs
- 4 primary or secondary or tertiary packs
- 5 documentation referring to the packaging and packaging records

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
use the appropriate PPE and/or product specific equipment/clothing	which PPE is appropriate and why
	any specialized protective equipment or clothing needed for the product and its use
stop the packaging run according to the specified procedures	the acceptable time limits for the completion of tasks
	which documentation to be completed and when
dispose of waste material according to the procedure	how to deplete the materials
	the packaging procedure
	reject, re-working, recycling and waste disposal procedures and their importance
	which documentation to be completed and when
complete the appropriate documentation correctly	which documentation to be completed and when
	what information is needed
	the procedure for amending documents
reconcile the products and materials according to the procedure	the purpose of reconciliation and how to carry out reconciliation
	which documentation to be completed and when
prepare the completed packs for removal or transfer according to the procedure	why, how and where to remove packs and/or part packs
	which documentation to be completed and when
identify and deal with problems correctly and promptly	the procedures for reporting and dealing with problems
	which documentation to be completed and when
leave the equipment and work area in the appropriate condition	which documentation to be completed and when

	the condition in which areas should be left
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## Unit 4.7

## Work safely

### Unit Overview

This Unit contains the following elements:

- 4.7.1 Minimise the risks to health and safety in the workplace
- 4.7.2 Minimise the risks to the environment in the workplace

The Unit sets out the requirements to work in a safe manner at all times, with due regard for human health, and the potential hazards of the working environment. It applies not only to the specific activities associated with packaging, but to every activity in the work place.

Working in a safe manner means not only taking specific actions to care for your own and other peoples' health and safety, it means contributing to the **prevention** of hazards and the active **promotion** of health, safety and environmental issue in the workplace.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to show that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- workplace health and safety policies covering smoking, eating, drinking and drugs, the use of safe working methods and equipment, and the safe use of hazardous substances
- personal presentation covering personal hygiene, personal protective equipment and clothing and accessories
- legal and workplace environmental procedures covering the use of safe working methods and equipment, the use of personal protection equipment, what to do in the event of an emergency involving materials hazardous to the environment, and authorization for handling, storing or using hazardous materials, products or equipment
- reporting procedures covering verbal and written reports.

**Element 4.7.1 Minimise the risks to health and safety in the workplace**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Follow the most up-to-date health and safety policies as applied to your role	What are the statutory duties and company procedures and working practices for personnel in each area, i.e. the extent of personal responsibility Who to consult if clarification/explanation is required and the procedure for such communication Consequences of failing to keep up-to-date with health and safety policies
Keep all areas clean and free of containable health and safety hazards at all times in accordance with legal requirements and health and safety policies, e.g. <ul style="list-style-type: none"> <li>• immediate work area</li> <li>• walkways and corridors</li> <li>• amenity areas: canteen, toilets, locker rooms, washrooms</li> <li>• storage areas</li> <li>• external factory areas</li> </ul>	What are the statutory duties and company procedures and working practices for personnel in each area, i.e. the extent of personal responsibility What are the typical health and safety hazards to be found in each of these areas Who to consult if clarification/explanation is required and the procedure for such communication Consequences of failing to keep areas clean and free from hazards
Ensure that your own conduct does not compromise the health and safety of yourself and others, or result in unacceptable hazards	What are the statutory duties and company procedures and working practices i.e. the extent of personal responsibility Consequences of inappropriate conduct
Use all equipment and machinery safely and in accordance with manufacturers' instructions	What are the statutory duties and company procedures and working practices i.e. the extent of personal responsibility How to access and follow correct usage instructions Who to consult if clarification/explanation is required and the procedure for such communication How to obtain emergency treatment Consequences of failing to observe correct usage instructions
Use and store all chemicals, including cleaning materials safely and in	What are the statutory duties and company procedures and working

accordance with manufacturers' instructions	practices i.e. the extent of personal responsibility
	How to access and follow manufacturers' instructions, including material safety data sheets
	Who to consult if clarification/explanation is required and the procedure for such communication
	How to obtain emergency treatment
	Consequences of failing to observe correct instructions
Ensure that your personal presentation does not compromise the health and safety of yourself and others, or result in unacceptable hazards	What are the statutory duties and company procedures and working practices i.e. the extent of personal responsibility
	Who to consult if clarification/explanation is required and the procedure for such communication
	Consequences of failure to comply with these duties, procedures and practices
Rectify health and safety hazards within your capability and responsibility	What are the statutory duties and company procedures and working practices i.e. the extent of personal responsibility
	Who to consult if clarification/explanation is required and the procedure for such communication
	Consequences of failure to deal with hazards promptly and effectively
Report hazards promptly	What are the statutory duties and company procedures and working practices i.e. the extent of personal responsibility
	To whom to report and report format
	Consequences of not reporting hazards promptly
Actively contribute to improvements in health and safety in the workplace	What is the relevant legislation and what are its requirements
	Company procedures for improvements to health and safety
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including:
	<ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required

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	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 4.7.2 Minimise the risks to the environment in the workplace**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Follow the most up-to-date environmental policies as applied to your role, e.g. the requirements of the Environmental Protection Act.	What are the statutory duties and company procedures and working practices for personnel in each area, i.e. the extent of personal responsibility Who to consult if clarification/explanation is required and the procedure for such communication Consequences of failing to keep up-to-date with environmental policies
Keep all areas clean and free of containable environmental hazards at all times in accordance with legal requirements and company policies, e.g. <ul style="list-style-type: none"> <li>• immediate work area</li> <li>• walkways and corridors</li> <li>• amenity areas: canteen, toilets, locker rooms, washrooms</li> <li>• storage areas</li> <li>• external factory areas</li> </ul>	What are the statutory duties and company procedures and working practices for personnel in each area, i.e. the extent of personal responsibility What are the typical environmental hazards to be found in each of these areas Who to consult if clarification/explanation is required and the procedure for such communication Consequences of failing to keep areas clean and free from hazards
Ensure that your own conduct does not result in unacceptable environmental hazards	What are the statutory duties and company procedures and working practices i.e. the extent of personal responsibility Consequences of inappropriate conduct
Use all equipment and machinery in accordance with manufacturers' instructions	What are the statutory duties and company procedures and working practices i.e. the extent of personal responsibility How to access and follow correct usage instructions Who to consult if clarification/explanation is required and the procedure for such communication How to obtain emergency treatment Consequences of failing to observe correct usage instructions
Use and store all chemicals, including cleaning materials in accordance with manufacturers' instructions	What are the statutory duties and company procedures and working practices i.e. the extent of personal

	responsibility
	How to access and follow manufacturers' instructions, including material safety data sheets
	Who to consult if clarification/explanation is required and the procedure for such communication
	What materials might be categorised as hazardous to the environment
	How to dispose of such hazardous materials
	How to obtain emergency treatment
	Consequences of failing to observe correct instructions
Rectify environmental hazards within your capability and responsibility	What are the statutory duties and company procedures and working practices i.e. the extent of personal responsibility
	Who to consult if clarification/explanation is required and the procedure for such communication
	Consequences of failure to deal with hazards promptly and effectively
Report hazards promptly	What are the statutory duties and company procedures and working practices
	To whom to report and report format
	Consequences of not reporting hazards promptly
Actively contribute to the limitation of environmental risks in the workplace	What is the relevant legislation and what are its requirements
	Company procedures for improvements to environmental risks
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation



## **Unit 4.12**

## **Work effectively in a team**

### Unit Overview

This unit addresses the competence required to work with others. This involves:

- those working in isolation, who need to communicate with others
- those working in groups
- accepting and clarifying responsibilities
- providing and receiving support and feedback
- working in ways which maintain your own and other's safety

There are three elements in this unit, each of which has performance standards and a knowledge base associated with it:

- 4.12.1 Determine and agree individual responsibilities in working with others
- 4.12.2 Complete work activities in conjunction with others
- 4.12.3 Provide and receive support and feedback

The Unit sets out the requirements to work with others as part of a team. It applies to personnel who work alone, but who have to communicate with others at various stages, and to those who work in an organised team structure.

Good team working is vital in the workplace, as the quality of goods produced relies on many skills and a combined level of knowledge, and not on one individual in isolation.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

There is also a glossary of terms which appear within the unit and have a specific meaning.

### **Assessment Strategy Statement**

In the context of N/SVQ assessment, the use of simulation is not acceptable in the assessment of this unit to cover the full scope as defined by the glossary of the unit. Workplace performance evidence is mandatory for this unit.

### **Glossary of terms**

The following terms have a specific meaning in this unit and are highlighted where they appear in the performance standards. In the context of NVQ/SVQ assessment, awarding bodies are required to make sure that a candidate's evidence of performance from the workplace demonstrates that their work is consistent with these terms as defined here.

#### ***Responsibility***

*That which is given by the appropriate authority*

**Authority**

*This gives the individual/s, permission to perform the activities*

**Personnel/work situation**

*This may include one, or a combination of:*

- *one to one*
- *group/team work*
- *where disagreement occurs*
- *on person to a group situation*

**Communicate**

*This may include all forms of communication including:*

- *spoken*
- *written*
- *electronic*

**Documentation**

*This may include all types of documentation that may be used in the organisation, in relation to the activity.*

**Corrective action**

*To be aware of potential hazards involved in the process, and take corrective action when necessary, including emergency shutdown.*

**Problems**

*These include those encountered with either plant/equipment/materials/and/or personnel.*

**Feedback/Support**

*Assistance given or received within the organisation. All forms of feedback and support should be constructive.*

**Health, Safety and Environmental Legislation**

*To be aware of all relevant legislation*

**Element 4.12.1 Determine and agree individual responsibilities in working with others**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Check levels of authority and responsibility before starting a work activity	What are the limits of authority and responsibility within the company and within the team
	How to check limits of authority and responsibility
	What competences and knowledge are required
	What are the levels of competence and knowledge of the personnel undertaking the activity
	What are the potential difficulties/shortfalls in competence and/or knowledge
	Consequences of not checking levels of authority and responsibility
Check if others who may be affected by this activity need to be informed	How to check if others need to be informed
	Who to consult if clarification/explanation is required
	Consequences of not checking if others may be affected by the activity
Communicate with others by the appropriate method (if required)	Company procedures for communication
	Who needs to know
	How and in what form to communicate clearly
	Consequences of not communicating clearly
Check that all personnel have received the necessary information	Who needs to know
	How and in what form to communicate the information clearly
	Consequences of not checking that all personnel have received the necessary information
Check that all personnel understand and agree to their responsibilities	How to check that personnel understand what is required
	Consequences of not checking understanding and responsibilities
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	Who to consult if the problem cannot be solved and/or is outside of your level of responsibility/capability
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> </ul>

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	<ul style="list-style-type: none"> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 4.12.2 Complete work activities in conjunction with others**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Check team understanding of the requirements of the work activity	What is the role of each team member in the activity Consequences of undertaking the work activity before checking that each team member understands his/her role
Complete work activities according to agreed schedule	What is the agreed schedule of activities, in the correct order How activities are inter-linked and interdependent (i.e. which activities must be completed before others can be started) How is each activity to be completed What are the individual responsibilities of the team members How to monitor activities against the agreed schedule Consequences of not adhering to the agreed schedule of activities
Keep colleagues and other personnel informed of progress	What are the limits of authority and reporting structure How to communicate effectively How to recognise and report difficulties What are the implications of difficulties identified and how they may be addressed Consequences of not following progress and anticipating issues
Take appropriate action when disagreement occurs	What options are available for dealing with disagreements Consequences of not dealing with disagreements appropriately
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them Who to consult if the problem cannot be solved and/or is outside of your level of responsibility/capability Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required

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	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 4.12.3 Provide and receive support and feedback**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Ensure that team members know their responsibilities	What are the levels of responsibility within the team Consequences of not clearly setting out responsibilities within the team
Keep the team and any other personnel informed at all times	What are the methods of communication within the team and within the company Consequences of poor communication
Identify when assistance is required	How to recognise when assistance is required Consequences of not quickly identifying when assistance is required
Provide assistance when needed	What are the limits of authority in providing assistance How to provide assistance competently and in a supportive manner Consequences of not providing assistance when needed
Give constructive support and feedback when needed	How to provide constructive feedback and support Who to consult if clarification/explanation is required Consequences of not providing constructive feedback and support
Seek support promptly when needed	What are the limits of competence and knowledge, i.e. how to recognise that support is needed Who to consult if clarification/explanation is required Consequences of not seeking support promptly when needed
Accept support and feedback	How to accept support and advice constructively Consequences of not accepting support and feedback when given
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required

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	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 4.18**

## **Respond to incidents, hazards and emergencies**

### Unit Overview

This Unit contains the following elements:

- 4.18.1 Identify incidents, hazards and emergencies
- 4.18.2 Take immediate action in response to incidents, hazards and emergencies

The Unit sets out the requirements to respond to incidents, hazards and emergencies which may occur in the work place. . Such events may occur on or in the immediate vicinity of the packaging line, or in the surrounding factory area, or in areas external to the factory.

The overall requirements are that the incident, hazard or emergency is contained safely and rapidly, and injury to personnel is avoided wherever possible.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

It is also essential to remain calm and focussed, so that the consequences of the incident, hazard or emergency are not made worse by panic.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to show that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- incidents, hazardous conditions or emergencies (actual or near misses) resulting from a fire, an injured person, a major plant or similar failure
- procedures relating to quality standards, legal requirements and departmental emergency procedures
- alarms to be raised by mechanical/electronic means, and by notifying someone

**Element 4.18.1 Identify incidents, hazards and emergencies**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Identify incidents, hazards and emergencies promptly	What are the requirements of statutory and company regulations as related to health and safety
	What types of incidents, hazards and emergencies might occur in the work place, e.g.: <ul style="list-style-type: none"> <li>• Personnel illness, injury or death</li> <li>• Fire</li> <li>• Explosion</li> <li>• Flood</li> <li>• Release or spillage of materials, including products, process chemicals and services</li> <li>• Major services failure</li> <li>• Discovery of suspect package</li> </ul>
	Company procedures for responding to each different type of incident, hazard or emergency
	Consequences of each type of incident, hazard or emergency
Raise the alarm promptly and in the correct manner	What are the different types of alarm in use on site and which alarm to use for which type of incident, hazard or emergency, e.g.: <ul style="list-style-type: none"> <li>• Fire alarm</li> <li>• Verbal alarm</li> <li>• First aid alarm</li> </ul>
	How to activate/operate each type of alarm
	Consequences of not raising the alarm promptly, or the correct type of alarm, for each incident, hazard or emergency
Report the incident, hazard or emergency promptly	Company procedures for reporting each different type of incident, hazard or emergency
	What are the responsibilities of each team member
	How to communicate accurately and effectively
	Consequences of not reporting the incident, hazard or emergency promptly
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any

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	alterations to documents
	The procedure for maintaining security of the documentation

**Element 4.18.2 Take immediate action in response to incidents, hazards and emergencies**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Assess correctly the type of emergency and its possible consequences	What is the problem and what are its likely immediate consequences What are the consequences in the longer term if the problem is not addressed immediately
Take correct action to minimise the risk of hazards	What are the requirements of statutory regulations as related to health and safety Company procedures for responding to each different type of incident, hazard or emergency What are the priorities for action What are the responsibilities of self and colleagues for appropriate actions What are the safe routes to designated assembly points Where is the appropriate equipment, including PPE, located and how to use/wear it correctly How to communicate and co-ordinate actions Consequences of incorrect/insufficient action
Modify actions in response to changing conditions	Why might actions need to be modified What alternatives are available and what are their consequences How to communicate and co-ordinate actions Consequences of not responding correctly to changing needs
Report accurately on actions taken	Company reporting procedures How to communicate accurately and effectively Consequences of not reporting on actions, or of reporting inaccurately or insufficiently
Contribute to corrective action to prevent recurrence of incidents, hazards and emergencies	What are the prime cause(s) of incidents, hazards and emergencies How to communicate accurately and effectively Consequences of not taking corrective actions
Complete all required documentation	What documentation is to be used and

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accurately and legibly and at the required time	how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 3.5**                      **Control printed materials**

### Unit Overview

This Unit contains the following elements:

- 3.5.1    Receive printed materials
- 3.5.2    Store and maintain security of printed materials
- 3.5.3    Issue printed materials
- 3.5.4    Reconcile printed materials

- The Unit sets out the requirements for controlling all printed packaging materials used on packaging lines.

Controlling printed packaging materials includes procedures and actions relating to: how to receive goods on arrival; how to transfer them to their storage locations; how to look after the goods while they are in store so that they do not deteriorate; and how to issue them for use on the packaging line.

The correct receipt, storage, issue and reconciliation of all packaging materials is essential for the efficient production of acceptable quality products. Materials which are damaged, or allowed to deteriorate during storage and handling will not run correctly on automatic packaging lines, leading to downtime and sub-standard production, with high levels of wastage of materials, product, energy and labour.

Failure to maintain adequate control of material stock levels will result in issues such as stock-outs, over-stocks, stocks of outdated materials, and use of wrong materials (e.g. due to wrong identification). All packaging materials will be delivered with identification labels, giving important details such as supplier, date of production, unique code number, number of items in pack. It is important to record this information accurately as it forms part of the company's traceability system, which will be activated, for example, in the event of a Product Recall.

This Unit covers the control of printed packaging materials which require visual checks on receipt, to confirm that they are the correct materials and in a visually acceptable condition. The requirements for taking samples of incoming materials and conducting further checks, e.g. laboratory tests are contained within the following Units:

- Unit 3.11      Prepare for packaging testing or sampling
- Unit 3.12      Carry out packaging testing or sampling
- Unit 3.13      Record packaging testing or sampling

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to demonstrate that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- recorded information relating to supplier communications, warehouse and packaging documentation
- procedures relating to legal requirements and quality standards
- problems associated with documentation, supplier codes, warehousing codes on materials, interpretation of packaging records, works orders, and the reconciliation of stock
- stock received from internal and/or external suppliers

**Element 3.5.1 Receive printed materials**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Ensure that the printed packaging materials match the approved specification	How to access the specifications
	What is the meaning of the information given and terms used in the specifications
	Who to consult if clarification/explanation of specifications is required
	How to access the delivery schedule of incoming printed packaging materials expected, including time and quantity of deliveries
	How to read the delivery documentation accompanying the goods and check that it is correct, according to the delivery schedule and packaging material specifications
	What are the acceptable quality standards, e.g. <ul style="list-style-type: none"> <li>• clean and free from contamination</li> <li>• correct identification labels</li> <li>• within required shelf life (if applicable)</li> <li>• outer wrappings intact</li> <li>• load securely stacked</li> <li>• no signs of water damage</li> <li>• pallets clean and undamaged</li> <li>• vehicle clean and suitable for transporting packaging materials</li> </ul>
	How to deal with unacceptable goods
	Procedure for confirming to the delivering company or individual that the goods are acceptable for off-loading
Off-load materials safely and efficiently	Consequences of not carrying out checks before confirming that the goods are suitable for off-loading
	What handling equipment to use
	How to use the equipment safely
	Where to off-load the printed packaging materials
	How to avoid damaging materials and/or their wrappings when off-loading
	How to deal with damaged materials to avoid misuse
	Consequences of not handling materials safely, and of damaging them and/or their wrappings during handling

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Record receipt of materials accurately	How to access and update stock control system to record receipt of materials
	How to record status of materials, e.g. approved for use, awaiting further testing, trial materials
	How to allocate unique identifiers to incoming materials
	How to record materials being returned to store so that traceability is maintained
	How to allocate storage locations for incoming materials
	How to find printed packaging materials after they have been placed in store
	How to reconcile the quantity of printed packaging materials after they have been placed in store
	Consequences of failing to manage stock records accurately
Transfer incoming printed packaging materials to the correct locations	What handling equipment to use
	How to use the equipment safely
	Where to place the materials in store
	How to store palletised and un palletised materials safely
	How to avoid damaging materials and/or their wrappings when transferring into store
	How to deal with damaged materials to avoid misuse
	Consequences of not handling materials safely, and of damaging them and/or their wrappings during movement
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.5.2 Store and maintain security of printed materials**

On completion of this Element learners will be able to:

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Store all printed materials in the appropriate conditions according to the specified procedures	What are the standards of hygiene, house-keeping and safety of storage areas How to keep storage areas clean, tidy and safe How to check that standards of hygiene, house-keeping and safety are being met
	What are the specified conditions of storage for specific materials, e.g. paperboard based materials should not be exposed to damp conditions, self adhesive labels should not be stored near sources of heat
	How to check environmental storage conditions, e.g. measure temperate and humidity
	How to check stored packaging materials for loss, damage and/or deterioration
	What types of damage and/or deterioration may occur
	How to mark up damaged materials to prevent use
	How to safely remove/isolate damaged materials to prevent use
	Consequences of storing packaging materials in inadequate conditions
Take active steps to maintain security of printed materials	Which materials require secure storage to prevent theft or mis-use How to keep these materials in secure conditions Consequences of not maintaining adequate security of printed materials
Update stock control records accurately to remove damaged materials	How to record damaged materials on the stock control system Consequences of not updating stock control records accurately
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation	What documentation is to be used and

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accurately and legibly and at the required time	how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.5.3 Issue printed materials**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Interpret and deal correctly with requests for printed materials	How to interpret a request for printed materials
	How to access and interrogate the stock control system to confirm availability of the requested printed materials
	Consequences of not dealing correctly with requests for printed materials
Issue correct printed materials in correct manner	How to locate the printed materials requested
	How to check that they are the correct printed materials for the request being fulfilled
	What handling equipment to use to remove the materials from their storage location to the point of issue
	How to use the equipment safely
	How to prepare printed materials for issue, e.g. how to remove wrappings
	How to dispose of any wrapping materials removed
	How to maintain the identity and traceability of printed materials during preparation and issue
	Where to deliver the requested printed materials
	How to avoid damaging materials and/or their wrappings when handling
	Consequences of not issuing printed materials correctly
Record issue of packaging materials	How to access the stock control system to remove the materials from stock
	How to close and record the transaction
	How to reconcile the stock of printed materials after the transaction
	Consequences of not correctly recording the issue of printed materials
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems

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Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.5.4 Reconcile printed materials**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Maintain accurate and up-to-date documentation of all printed materials movements into and out of store	How to complete the documentation
	Timescale by which all documentation must be updated
	Consequences of not maintaining accurate and up-to-date documentation
Reconcile actual stocks with recorded stocks accurately	How to count/measure actual stocks of packaging materials and reconcile with records
	How to access the stock control system and record all printed material movements, including: <ul style="list-style-type: none"> <li>• goods from suppliers</li> <li>• inter-site transfers</li> <li>• goods issued to Production</li> <li>• goods returned from Production</li> <li>• goods rejected and disposed of</li> </ul>
	Consequences of not maintaining accurate records of printed materials movements
Control disposal of rejected printed materials safely and securely	What are the criteria for rejection of printed materials
	Who to consult if clarification/explanation is required
	Correct methods of disposal of printed materials
	Consequences of unsafe or insecure disposal of printed materials
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation

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	must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 3.6      Control materials movement**

### Unit Overview

This unit contains the following elements:

- 3.6.1      Check and confirm availability of materials and documentation
- 3.6.2      Receive and check materials
- 3.6.3      Collate and move materials
- 3.6.4      Record materials movement information

The Unit sets out the requirements for controlling movement of all packaging materials used on packaging lines. Such materials are likely to include:

Controlling packaging materials movements includes procedures and actions relating to: how to receive goods on arrival; how to transfer them to their storage locations; how to look after the goods while they are in store so that they do not deteriorate; and how to issue them for use on the packaging line.

The correct receipt, storage, issue and reconciliation of all packaging materials is essential for the efficient production of acceptable quality products. Materials which are damaged, or allowed to deteriorate during storage and handling will not run correctly on the automatic packaging lines, leading to downtime and sub-standard production, with high levels of wastage of materials, product, energy and labour.

Failure to maintain adequate control of material stock levels will result in issues such as stock-outs, over-stocks, stocks of outdated materials, and use of wrong materials (e.g. due to wrong identification). All packaging materials will be delivered with identification labels, giving important details such as supplier, date of production, unique code number, number of items in pack. It is important to record this information accurately as it forms part of the company's traceability system, which will be activated, for example, in the event of a Product Recall.

This Unit covers the control of packaging materials which require visual checks on receipt, to confirm that they are the correct materials and in a visually acceptable condition. The requirements for taking samples of incoming materials and conducting further checks, e.g. laboratory tests are contained within the following Units:

- Unit 3.11              Prepare for packaging testing or sampling
- Unit 3.12              Carry out packaging testing or sampling
- Unit 3.13              Record packaging testing or sampling

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to demonstrate that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- documentation relating to packaging instructions/requirements
- bulk products, packaging components and all finished packs
- procedures relating to legal requirements and quality standards
- problems with documentation, materials, storage conditions, space limitation, high work loads, and recording, storage and retrieval of information
- routine, non-routine and incorrect deliveries
- equipment for support, containment and movements of goods
- storage considerations relating to security, controlled conditions and segregation

**Element 3.6.1 Check and confirm availability of materials and documentation**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Check the availability of the specified materials to pack the order/batch	How to check availability of materials How much of each material is required Consequences of not carefully checking availability of all materials
Request the specified materials to ensure delivery at the correct time and location	What is the required time of delivery What is the required delivery location Consequences of making incorrect requests
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed To whom the completed documentation must be given The prescribed way of making any alterations to documents The procedure for maintaining security of the documentation

**Element 3.6.2 Receive and check materials**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Identify that the correct items are received, in the correct quantity and to the correct quality according to the documentation	Which materials are expected at what time How to identify correct materials and quantities What are the acceptable quality standards, e.g. <ul style="list-style-type: none"> <li>• clean and free from contamination</li> <li>• correct identification labels</li> <li>• outer wrappings intact</li> <li>• load securely stacked</li> <li>• no signs of water damage</li> <li>• pallets clean and undamaged</li> <li>• vehicle clean and suitable for transporting packaging materials</li> </ul> How to deal with unacceptable materials Procedure for confirming to the delivering company or individual that the materials are acceptable for off-loading Consequences of not checking incoming packaging materials carefully
Off-load goods safely and efficiently	What handling equipment to use How to use the equipment safely Where to off-load the incoming packaging materials How to avoid damaging materials and/or their wrappings when off-loading How to deal with damaged materials to avoid mis-use Consequences of not handling materials safely, and of damaging the goods and/or their wrappings during handling
Record receipt of goods accurately	How to access and update stock control system to record receipt of materials How to record status of materials, e.g. approved for use, awaiting further testing, trial materials How to allocate unique identifiers to incoming materials How to record materials being returned to store so that traceability is maintained How to allocate storage locations for incoming materials How to find materials after they have been placed in store

	How to reconcile the quantity of materials after they have been placed in store
	Consequences of failing to manage stock records accurately
Transfer incoming goods to the correct locations	What handling equipment to use
	How to use the equipment safely
	Where to place the materials in store
	How to store palletised and unpalletised materials safely
	How to avoid damaging materials and/or their wrappings when transferring into store
	Consequences of not handling materials safely, and of damaging them and/or their wrappings during movement
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	Procedures for reporting problems, including:
	<ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.6.3 Collate and move materials**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Collate the specified materials correctly against the documentation	When must the materials be made available
	Which materials are required
	Where the materials are located
	How to identify and check that they are the correct packaging materials for the request being fulfilled
	How to prepare materials for movement, e.g. how to remove wrappings
	How to dispose of any wrapping materials removed
	How to maintain the identity and traceability of the materials
	Consequences of not collating all materials carefully against the documentation
Move the materials safely and securely	What handling equipment to use
	How to use the equipment safely
	How to avoid damaging materials and/or their wrappings when moving
	Consequences of not handling materials safely, and of damaging the goods and/or their wrappings during handling
Place the materials in their correct location at the packaging line	Where to deliver the requested packaging materials
	When the materials must be in place
	Who to tell when the task is complete and how is this done
	Where to return any handling equipment used
	Consequences of not moving all materials correctly to the packaging line
Remove any excess/damaged materials safely and securely from the packaging line	What handling equipment to use
	How to use the equipment safely
	How to avoid damaging materials and/or their wrappings when moving
	How to maintain traceability of the materials
	Where to locate the removed materials
	Correct methods of disposal of packaging materials
	Who to tell when the task is complete
	Consequences of not removing materials

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	safely and securely from the packaging line
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	Procedures for reporting problems, including:
	<ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.6.4 Record materials movement information**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Accurately record all packaging materials movements	Timescale for competing records How to count/measure actual stocks of packaging materials How to access the stock control system and record all packaging material movements, including: <ul style="list-style-type: none"> <li>• goods from suppliers</li> <li>• inter-site transfers</li> <li>• goods issued to Production</li> <li>• goods returned from Production</li> </ul> goods rejected and disposed of
	How to retrieve information from the stock control system
	Consequences of not accurately recording all packaging materials movements
Maintain data accuracy at all times	How to check the accuracy of the data How often this check should be carried out Consequences of not maintaining accurate stock records
Maintain security and confidentiality at all times	How to access and maintain the security and confidentiality of data Consequences of breaches of security or confidentiality
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed To whom the completed documentation must be given The prescribed way of making any alterations to documents The procedure for maintaining security of the documentation

## **Unit 3.7      Carry out routine machine changeover**

### Unit Overview

This Unit contains the following elements:

- 3.7.1 Prepare for a routine machine changeover
- 3.7.2 Perform a routine machine changeover
- 3.7.3 Complete a routine changeover
- 3.7.4 Confirm correct system operation

The Unit sets out the requirements for carrying out routine changeovers on packaging lines. A changeover will be initiated by any of the following:

- Change of product being filled
- Change of pack size
- Change of primary pack format, e.g. addition of a special opening device
- Change of secondary pack format, e.g. different number of packs to be collated, change of shrink-wrap film or tray
- Change of tertiary pack format, e.g. different pallet layout, different number of packs per pallet

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to demonstrate that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- procedures relating to legal requirements and quality standards
- problems with tools, materials, equipment, components and machine function, packaging and line documentation
- the operation of mechanical changeover of packaging line/machinery

**Element 3.7.1 Prepare for a routine machine changeover**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Determine the nature and extent of the routine changeover	How to find out what is the next pack/product in the production plan What is the extent of the differences between the current pack/product and the next pack/product How long is needed for the changeover When is the changeover due to start Consequences of not understanding the nature and extent of the changeover
Promptly obtain authority to proceed with changeover	Who gives authority and how that authority is given Consequences of starting changeovers without authority
Obtain and prepare the necessary tools, materials, components and equipment correctly	What tools, materials, components and equipment will be needed Where are these items located Procedures for withdrawal of these items from store How to carry out any special preparations before these items can be used, e.g. assembly of tools, cleaning and lubrication of parts Consequences of not making adequate preparations
Identify and replace any defective or unsafe tools, materials, components and equipment	How to inspect these items before use, and verify that they are correct, and safe and suitable for use How to identify what constitutes 'defective' or 'unsafe' How to obtain replacements or materials to carry our repair Consequences of not checking items for condition
Carry out off-line assembly correctly	How to assemble parts How to use tools safely and effectively Consequences of carrying out off-line assembly incorrectly
Check the packaging line to verify that it is safe to proceed with the routine changeover	When will the packaging line be available for the routine changeover What constitutes a safe condition of the packaging line How to carry out safety checks Consequences of not carrying out line safety checks

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Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.7.2 Perform a routine machine changeover**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Carry out a changeover correctly and in the required order	What is the correct order in which changes should be carried out How to remove machine parts correctly and safely How to inspect parts for defects How and to whom to report defective parts or changeover problems How to fit new parts Consequences of not carrying out changeovers correctly
Return machines to operational status within agreed procedures and timescale	How to set machine controls for the new pack/product How much time is allowed for the changeover How to record machine settings What is the start up sequence How to produce sample packs and how many packs are required What is the required rate of production What are the acceptable standards and limits of acceptability for the pack/product How to check the acceptability of sample packs, including: <ul style="list-style-type: none"> <li>• Correct materials used</li> <li>• Correct product and volume</li> <li>• Correct date code and batch data</li> <li>• Correct forming of pack</li> </ul> How to carry out adjustments and record new machine settings How to lock machine settings to prevent accidental/unauthorised adjustments Consequences of not carrying out test procedure correctly
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required	What documentation is to be used and how to obtain it

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time	
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.7.3 Complete a routine changeover**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Clean and tidy the line and work area ready for next use	What is the condition in which the line and work area should be left for the next use
	What special cleaning is required, and how to carry out this cleaning
	Consequences of not carrying out effective cleaning of the line and work area
Remove all tools and unwanted equipment from the line and work area and return them to store correctly	Which tools and pieces of equipment have been used
	Where these items should be stored or disposed of
	Consequences of leaving tools etc. on the line and/or in the work area
Identify and seek to replace any defective or unsafe tools, materials, components and equipment	What is the condition in which these items should be left for the next use
	How to inspect these items and attend to and/or record any defects
	How to identify what constitutes 'defective' or 'unsafe'
	How and to whom to report defective items
	How to obtain replacements or materials to carry out repairs
	Consequences of not checking items for condition
Remove all test packaging materials and packs from the line	What materials have been used and how many test packs have been produced
	Where test materials and packs are to be taken and how to store or dispose of them
	How to record use and disposition of test materials and packs
	Consequences of not correctly removing test packaging materials and packs and recording their use and disposition
Report promptly on the completion of the changeover	To whom to report
	How the information must be communicated
	When the report must be given
	Consequences of not reporting completion promptly
Identify and deal with problems	What are the typical problems which

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effectively	<p>might occur and how to identify them</p> <p>What are the responsibilities of each team member</p> <p>Procedures for reporting problems, including:</p> <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> <p>How to deal with problems</p>
Complete all required documentation accurately and legibly and at the required time	<p>What documentation is to be used and how to obtain it</p> <p>What information is required</p> <p>When the documentation must be completed</p> <p>To whom the completed documentation must be given</p> <p>The prescribed way of making any alterations to documents</p> <p>The procedure for maintaining security of the documentation</p>

**Element 3.7.4 Confirm correct system operation**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Set up the packaging line to operate within the required standards of quality and efficiency	Set up procedure What are the standards of acceptability of packs What is the required line efficiency for the pack/product being produced Consequences of not setting up the line correctly
Check that all equipment in the line is operating safely and efficiently	What checks must be made and why How is each check carried out What are the required results of each check and how are they recorded Consequences of not checking all equipment for safety and efficiency
Run additional trials if necessary	When and how to carry out any additional tests Consequences of not running additional trials when necessary
Obtain approval to restart the line	Who gives approval and how that approval is given Consequences of restarting the line without obtaining approval
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed To whom the completed documentation must be given The prescribed way of making any alterations to documents The procedure for maintaining security of the documentation

## **Unit 3.8      Produce by process operations**

### Unit Overview

This Unit contains the following elements:

- 3.8.1    Prepare to produce product
- 3.8.2    Make product by processing operation
- 3.3.3    Reconcile materials and clear away

This unit addresses the competence required to manufacture a product by simple batch or continuous processing. This involves:

- preparation of materials
- processing of product
- reconciliation of materials used
- clearing the area
- working in ways which maintain your own and other's safety.

This unit is taken from the Chemical, Pharmaceutical and Petro-Chemical Manufacture (CPPCM) suite of National Occupational Standards.

There is a glossary of terms which appear within the unit and these terms have a specific meaning.

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to demonstrate that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- procedures relating to legal requirements and quality standards
- problems with tools, materials, equipment, components and machine function, packaging and line documentation
- the operation of mechanical changeover of packaging line/machinery

## Glossary of terms

The following terms have a specific meaning in this unit and are highlighted where they appear in the performance standards. In the context of NVQ/SVQ assessment, awarding bodies are required to make sure that a candidate's evidence of performance from the workplace demonstrates that their work is consistent with these terms as defined here.

<b>Materials / products</b>	May be expected to include solids, liquids and gases. Some may be hazardous.
<b>Operating instructions/specification</b>	The set of instructions which describe the work to be carried out, including details of the quality, quantity and time requirements.
<b>Equipment/plant</b>	This may include equipment/plant where there is some interaction between items and/or people. Also may include single items of equipment comprising a few parts
<b>PPE</b>	Personal protective equipment to be specified and worn when necessary.
<b>Problems</b>	These can relate to materials, equipment, records and specifications. The person carrying out this work would not be expected to resolve any equipment problem for which maintenance engineers are required. Where a problem does require a maintenance engineer, the person would be expected to report the problem to a more senior person.
<b>Corrective actions</b>	May include adjust, replace defective materials, request assistance or shutdown
<b>Documentation</b>	<i>Includes records, specifications, and any other relevant documentation.</i>
<b>Waste</b>	Including ways of minimising waste in the process and may include acceptance re-cycling within the operation.
<b>Health, safety and Environmental legislation</b>	To include all relevant legislation and company policy.

**Element 3.8.1 Prepare to produce product**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Ensure that there are sufficient quantities of materials/products to complete the job	What materials/products are required Consequences of not checking the availability of materials/products
Ensure that the correct equipment is available, in correct working order	What are the functions and uses of the different types of equipment required Consequences of not checking that all equipment is available
Ensure that the materials/products to be processed are as specified	What are the required characteristics of the materials/products Consequences of not checking that all materials/products are correct
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed To whom the completed documentation must be given The prescribed way of making any alterations to documents The procedure for maintaining security of the documentation

**Element 3.8.2 Make product by process operation**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Make product according to the correct procedure	What is the correct way of making the product
	Consequences of not following correct procedure
Ensure that the product meets the required specification	What is the required specification
	How to check that the product meets specification
	Consequences of not meeting the required specification
Ensure that the product meets the quantity requirements in the time specified	How much product is required
	When must the product be completed
	Consequences of not meeting the required quantity within the allowed time
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.8.3 Reconcile materials and clear away**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Check products and materials against the operating instructions	What features must be checked
	How to carry out the required checks
	Consequences of not checking materials and products
Record results	What results are to be recorded
	How to record results
	Consequences of not recording results accurately
Isolate equipment and ensure it is cleaned to the required state for the next production	What equipment must be isolated
	How to isolate equipment
	How to clean equipment ready for the next production
	Consequences of not isolating and cleaning equipment correctly
Remove all residual materials, product and documentation	What materials, products and documentation must be removed
	Consequences of not removing residual materials, products and documentation from the area
Dispose of any materials, product and documentation according to company procedure	How to correctly dispose of materials, product and documentation
	Consequences of not correctly disposing of materials, products and documentation
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any

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	alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 3.9      Solve processing problems**

### Unit Overview

This Unit contains the following elements:

#### *Element*

- 3.9.1 Recognise the existence of problems and identify their underlying causes
- 3.9.2 Select standard solutions to routine problems
- 3.9.3 Implement approved solutions to routine problems
- 3.9.4 Follow up the outcomes of routine problem solving activity

The Unit sets out the requirements for solving routine problems which occur on packaging lines. As these lines can be highly automated and run at high speeds, early recognition of faults and rapid and accurate decisions on actions needed to correct them are vital, so that the production of sub-standard goods is minimised and contained. All packaging material and product wastage is costly in terms of the value of the materials, the wasted labour and energy, and the environmental impact of the waste on disposal.

Once a problem is recognised, steps must be taken to limit the consequences of the problem and report it. In order to identify the root cause of the problem it will be necessary to collect together as much information as is available, so that it can be analysed, before any solutions are implemented. This collection and analysis of information requires good communication skills, as it is unlikely that all the information will be held in one source, and there will be several interested parties who need to know about the problem. Team working is especially important in this process, so that all options are explored and the best solution selected.

Problem solving activities require good analytical skills and the implementation of solutions requires good planning and organisational skills. A thorough and honest review at the end of the process (Element 13.4) offers the opportunity to further develop these skills, so that the learner becomes more proficient at problem solving and at avoidance of future problems.

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to demonstrate that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- systems containing a limited range of factors, with an approved response to each condition

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- settings where all critical features of each system are known, and settings where clarification is needed – guidance is available which gives the procedures and criteria to be used in order to match the approved solution to each problem
- resources relating to tools, aids and equipment, and team members
- communication between team members and instructing authorities
- the nature of the problems in returning systems to an established standard of operation and raising the standard of operation of the system
- established and approved procedures for monitoring systems
- monitoring procedures where all features of a range of monitoring parameters are fully described, guidance is available which gives exact criteria against which to monitor the performance of the system

**Element 3.9.1 Recognise the existence of problems and identify their underlying causes**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Recognise and confirm problems promptly	How should the packaging line normally perform in terms of criteria such as: <ul style="list-style-type: none"> <li>• line speed</li> <li>• expected number of good packs per hour</li> <li>• acceptable standard of packs produced</li> <li>• level of wastage</li> <li>• other factors such as level of noise, vibration, temperature etc.</li> </ul> What typical problems might occur and how to identify them Consequences of not identifying problems promptly
Thoroughly analyse all information about the problem	What information is needed for a thorough analysis Where this information is held How to analyse the information correctly Who to consult if clarification/explanation is required Consequences of not carrying out a thorough analysis
Correctly identify underlying causes of problems	How to draw appropriate and accurate conclusions from the analysis of information How to challenge conclusions effectively To whom to refer when problems are beyond your level of knowledge and understanding Consequences of not applying appropriate rigour to the process of identifying root causes of problems
Estimate fully and accurately the effects of problems upon the system and any interactions with other systems	What are the interactions with other systems What effects are likely Consequences of not fully considering and estimating the effects of a problem within one system on other systems in the operation
Ascertain or estimate the time available, priority and urgency of what action is required	How much time is needed What options are available What are the priorities for action

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	Consequences of not accurately estimating time, priority and urgency
Define problems in such detail as is necessary to enable them to be understood	What information is required and to whom must it be given
	How to check that the information has been received and understood
	Consequences of not defining problems accurately
Take immediate action to limit the consequences of problems	What are the likely consequences of the problems on all aspects of the business
	What actions to take to limit consequences of problems
	How to carry out such actions safely and rapidly
	Consequences of not taking immediate action to limit consequences of problems
Activate promptly parallel or alternative systems to ensure continuing operation where possible and permissible	What alternative systems are available
	What level of authority is required to activate these alternatives and how to get it
	How to activate the chosen alternative
	Consequences of not taking prompt action to ensure continuing operation
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.9.2 Select standard solutions to routine problems**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Identify standard solutions	What are the essential features of the system What are the appropriate standard solutions available What actions to take if there is no appropriate standard solution available Consequences of not considering standard solutions to operational problems
Select the most appropriate standard solutions to solve the problem correctly and meet the required timescale	What is the range of standard solutions available for solving different types of problems What are the implications of any options available, e.g. in terms of: <ul style="list-style-type: none"> <li>• availability of parts/equipment/materials</li> <li>• availability of skills required</li> <li>• effect on other areas of the business</li> <li>• time required to implement and test</li> <li>• long-term effectiveness</li> </ul> Consequences of selecting solutions which are inappropriate for the type of problem, e.g. inadequate, or overly complex and time-consuming
Refer any problems for resolution to the relevant authority, in a timely manner	Who to consult if clarification/explanation is required Consequences of not consulting the relevant authority when required
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed To whom the completed documentation must be given The prescribed way of making any

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	alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.9.3 Implement approved solutions to routine problems**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Obtain agreement to the proposed solutions	How and with whom this should be agreed Consequences of going ahead without agreement to the proposed solution
Obtain approval to implement the approved solutions	Who gives approval and how that approval is given Consequences of going ahead without the correct level of approval
Plan the implementation of approved solutions	How long the implementation will take What information is required and how is this obtained What parts/equipment/materials are required Where these items are located and how to use them What skills and manning levels are required What are the likely effects on other parts of the operation and how can these be addressed Consequences of not planning such work correctly
Implement approved solutions effectively	What actions are required How to carry out the agreed work How much time is allowed What the criteria are for measuring the success of the implementation Consequences of not meeting the agreed criteria or timescale
Test approved solutions	How to carry out tests Consequences of inadequate testing after implementation of solutions
Obtain approval of implemented solution	Who gives approval and how that approval is given Consequences of not obtaining the correct level of approval
Monitor the effectiveness of the implemented solution	What monitoring activities are required How to carry out monitoring activities How to report the results of monitoring activities Consequences of not carrying out monitoring activities
Take prompt and appropriate action	What actions are required

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should the selected solution be inappropriate	
	<p>What are the reporting procedures</p> <p>Consequences of not taking appropriate action and reporting</p>
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	<p>Procedures for reporting problems, including:</p> <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 3.9.4 Follow up the outcomes of routine problem solving activity**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Give full, accurate and timely reports on: <ul style="list-style-type: none"> <li>• how the problem arose</li> <li>• what actions you took to identify the root cause of the problem</li> <li>• how/why you chose a particular solution</li> <li>• what actions you took to implement and test the solution</li> <li>• the results of any on-going monitoring activities</li> </ul>	What are the requirements of each of the departments/individuals to whom you are reporting, in terms of: <ul style="list-style-type: none"> <li>• in what form they want the information, written or verbal</li> <li>• how much information they require</li> </ul> How to provide information Consequences of inadequate reporting of information
Take prompt and appropriate action to inform the relevant authority if your work indicates alternative underlying causes for the problem	What are the alternative underlying causes How have you come to your revised conclusions To whom should this be reported Consequences of not making known your findings on underlying causes of problems
Consider and report on possible improvements to processes or procedures which could eliminate problems, or lead to a more efficient resolution of problems in the future	What are the options for improvements to processes or procedures What are the implications of these options for the business How to provide information Consequences of failure to consider improvements
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required	What documentation is to be used and how to obtain it

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time	
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

### **Unit 3.11      Prepare for packaging testing or sampling**

#### Unit Overview

This Unit contains the following elements:

#### *Element*

##### 3.11.1    Prepare for packaging testing or sampling

The Unit sets out the requirements for preparing for packaging testing or sampling at various stages as part of the overall operation of a packaging line. For example, testing or sampling may need to be carried out in any of the following circumstances:

- On receipt of packaging materials from suppliers, or when materials are returned from production, or transferred from other sites
- When carrying out a routine check of the condition of stored packaging materials
- If a packaging material is not performing as expected, e.g. dragging on the line, or not heat sealing correctly, and further investigation is needed
- As part of the routine sampling of finished packs during the packaging operation

The specific circumstances will determine the number of samples to be taken, the urgency with which they are required, how they should be taken, and what should be done with the samples after taking. Company procedures and instructions will specify these requirements, and must be adhered to at all times.

Whatever the circumstances, the samples taken will subsequently be tested in some way, and the results of this testing will be used to make decisions as to the suitability or not of the packaging materials or finished packs for use. Therefore all samples must be as representative as possible of the bulk materials and packs and be clearly labelled. Also, the condition in which samples are kept prior to testing must be such that the properties of the samples are neither adversely nor favourably affected, otherwise the test results will be invalid.

Sample taking must not be allowed to compromise the quality and/or safety of the bulk packaging materials or finished packs, e.g. by allowing microbiological contamination, or leave the materials open to deterioration due to moisture, dirt etc. Any scrap materials or packs which arise as a result of sampling must be removed and properly disposed of.

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct. Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to demonstrate that you can operate in a range of conditions.

You will need to demonstrate therefore that you can deal effectively with the following:

- resources in terms of materials, personal protective equipment, and utilities
- safe practices relating to personal protective equipment, safe materials handling, safe lifting and moving techniques, disposal and storage
- checks on equipment of calibration, serviceability, cleanliness and preparation
- the immediate environment, operations, people and the conditions under which the test is to be conducted and/or the sample taken

**Element 3.11.1 Prepare for packaging testing or sampling**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Review the documentation which must be used for the testing or sampling operations	How to interpret the documentation, e.g. <ul style="list-style-type: none"> <li>• How to select the correct sampling plan for the required sampling operation</li> <li>• Why the testing or sampling is required</li> <li>• What testing or sampling must be carried out</li> </ul>
	Consequences of selecting the wrong documentation and/or not completing it correctly
Prepare correctly any equipment required for testing or sample taking	What tests are to be carried out, or what samples are to be taken
	What equipment will be required and where it is located
	How to prepare and/or assemble the equipment and check it is functioning correctly
	How to calibrate the equipment and how to check the calibration
	How to operate the equipment
	How to deal with equipment which is not functioning correctly, i.e. <ul style="list-style-type: none"> <li>• Company procedure</li> <li>• Who to tell</li> <li>• How to communicate this information</li> </ul>
	Consequences of not correctly preparing equipment
Programme the testing or sampling into the working shift to minimise disruption to the operation	When the testing or sampling must be carried out
	How long the testing or sampling operation will take
	What resources will be required and when will these resources be available
	Where the materials to be tested or sampled are located
	What effect the testing or sampling operation will have on production
	Consequences of taking samples at the wrong time
Confirm the relevant controlled conditions for testing or sampling	What conditions are required, e.g. <ul style="list-style-type: none"> <li>• Temperature</li> <li>• Humidity</li> <li>• Specific time point</li> <li>• Cleanliness</li> </ul>

	<ul style="list-style-type: none"> <li>• Integrity of samples</li> </ul>
	What tolerances are allowed on these conditions
	What factors might affect these conditions and how can such factors be controlled
	How to read or measure these conditions and report the findings
	Consequences of testing or sampling under incorrect conditions
Prepare test samples correctly	How to check samples for identity and integrity
	How samples should be identified and how they should be wrapped, stored etc.
	How to handle test samples
	When and how to condition samples, e.g. bring to correct temperature and humidity
	Consequences of not preparing samples correctly
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 3.12      Carry out packaging testing or sampling**

### Unit Overview

This Unit contains the following elements:

#### *Element*

##### 3.12.1 Carry out packaging testing or sampling

The Unit sets out the requirements for carrying out testing or sampling of packaging materials used on packaging lines, and of finished packs. The tests to be carried out may be routine, as part of the normal quality procedures, or they may be non-routine, in the event of a problem occurring. Typical tests to be carried out may include:

- Weight of packaging materials
- Dimensional checks, e.g. calliper of packaging materials, print repeat length, reel width and diameter, fit to other components
- Rub resistance of print
- Seal integrity of finished packs
- Bar code checking
- Challenge testing of security equipment

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit. In addition, as it is essential that the samples being tested have been taken correctly, as per the requirements of Unit 11: Carrying out simple sampling operations, competence in Unit 11 is a pre-requisite before completing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to demonstrate that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- resources in terms of materials, personal protective equipment, and utilities
- safe practices relating to personal protective equipment, safe materials handling, safe lifting and moving techniques, disposal and storage
- the immediate environment, operations, people and the conditions under which the test is conducted and/or the sample taken
- information covering sample identification test results, calculations and data processing and the conditions of tests.

**Element 3.12.1 Carry out packaging testing or sampling**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Carry out testing or sampling according to defined procedures and sampling plan	Which materials are to be tested or sampled Purpose of testing or sampling operation How to take samples without compromising the quality and safety of samples or of personnel How to take samples without compromising the quality and safety of the remainder of the goods How to wrap/return the remainder of the goods to maintain in acceptable condition How to carry out testing correctly, without compromising the quality and safety of materials or of personnel When it is necessary to repeat a test or take a further sample Who to consult if clarification/explanation is required Consequences of not following company procedures and test methods
Ensure that the correct test has been carried out, or the correct sample taken	How to check that the correct test has been done, or the correct sample taken Consequences of not checking that the testing or sampling has been carried out correctly
Record and take appropriate action on any deviation from set procedures	What are the reporting procedures in the event of deviations from set procedures What events/actions might lead to a deviation from set procedures and what are the limits of acceptability What actions must be taken in the event of deviations from set procedures Consequences of not recording and taking appropriate action on any deviations from set procedures
Record information on conditions of testing or sample taking accurately	What information is needed, e.g. <ul style="list-style-type: none"> <li>• temperature and humidity of storage area (especially for paper-based materials)</li> <li>• specific machine settings (when taking samples for investigation in response to poor material performance)</li> </ul> How to record the information and maintain traceability Consequences of not recording information accurately
Maintain the integrity of samples	How to find identifying information

	How to record the information
	How to label samples correctly
	Consequences of not identifying samples accurately
Protect the sample against contamination, damage or loss	What are the sources of contamination, and causes of damage or loss
	What are the special requirements for samples, e.g. keep flat
	How to protect samples adequately
	Consequences of not protecting samples adequately
Clean and close down testing or sampling equipment	How to clean and close down equipment safely and correctly
	Where to store/return equipment for next use
	Consequences of not cleaning and closing down equipment correctly
Clean and store appropriately any materials which can be reused	Which materials can be reused
	Which cleaning materials, equipment or methods must be used
	Where and how to store these materials
	Consequences of not cleaning and storing materials correctly
Dispose of all used materials safely and correctly	What is the extent of used materials to be disposed of
	How to dispose of used materials
	Consequences of allowing used materials to remain in the production area, and of not disposing of them safely and correctly
Restore the area to an acceptable condition	In what condition the area should be maintained
	After which testing or sampling operations is cleaning specifically required
	How to carry out the required cleaning, i.e. materials and equipment to be used and how to use it
	Consequences of leaving the test area in an unacceptable condition
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required

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	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

### Unit 3.13 Record packaging testing or sampling results

#### Unit Overview

This Unit contains the following elements:

#### *Element*

##### 3.13.1 Record packaging testing or sampling results

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit. In addition, as it is essential that the samples being tested have been taken correctly, as per the requirements of Unit 11: Carrying out simple sampling operations, competence in Unit 11 is a pre-requisite before completing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to demonstrate that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- resources in terms of materials, personal protective equipment, and utilities
- safe practices relating to personal protective equipment, safe materials handling, safe lifting and moving techniques, disposal and storage
- the immediate environment, operations, people and the conditions under which the test is conducted and/or the sample taken
- information covering sample identification test results, calculations and data processing and the conditions of tests

For example, you could conduct tests for:

- challenge testing of security equipment
- colour
- weight
- fit with mating components
- environmental requirements
- specific quality requirements & etc

You might be taking samples for:

- reference
- testing
- quality & etc

**Element 3.13.1 Record packaging testing or sampling results**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Accurately record the results of tests carried out	Company procedures and test methods
	What information is needed and why
	What are the standard formats for reporting
Carry out simple calculations based on test results	Consequences of poor recording of results
	Company procedures and test methods
	How to carry out the required calculations
	Who to consult if clarification/explanation is required
Report acceptability/non-acceptability of test materials based on results	Consequences of failing to carry out calculations correctly
	What are the criteria for acceptability/non-acceptability
	What are the allowable tolerances
Identify and deal with problems effectively	Who to consult if clarification/explanation is required
	Consequences of mis-reporting results
	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
Complete all required documentation accurately and legibly and at the required time	Procedures for reporting problems, including:
	<ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Unit 4.8**      **Maintain hygiene standards in handling and storing food products**

Unit Overview

This Unit contains the following elements:

*Element*

- 4.8.1    Maintain hygiene standards in handling and storing food products

This unit is about handling and storing food hygienically so that it remains safe for customers to eat. You will need to understand how food can become contaminated and how to prevent this from happening. You will need to demonstrate that you take the necessary precautions to keep the food you store and handle from becoming contaminated, as follows:

- Keep yourself and your clothes clean enough for the work that you do
- Store food hygienically
- Keep your work area and equipment hygienic

Performance in this unit relates to the following applications or contexts:

**Correct places:**

- Chilled areas
- Non-chilled areas
- Layout
- Levels of fill

**Contamination:**

- Bacteria
- Chemicals
- Foreign bodies

**Procedures:**

- Procedures required by law
- Additional organizational requirements

**Infestation:**

- Fungus
- Plant life
- Animal life

**Equipment:**

- Utensils
- Machines operated by hand
- Electrical machines

**Protective clothing:**

- Overalls
- Hats
- Shoes
- Gloves

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

**Element 4.8.1 Maintain hygiene standards in handling and storing food products**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Keep self and clothes clean enough for the work being done by:	Why it is important to maintain workplace hygiene and how this affects customer service
a. Cleaning hands and fingernails before handling food b. Comply with regulations on hair covering c. Correctly using protective clothing d. Putting protective clothing in the correct place after use e. Leaving the washroom clean and tidy after use	How to keep self and clothes clean for the work being done
	Consequences of failing to keep self and clothes clean enough for the work being done
Store food hygienically by:	Why it is important to store food hygienically
f. Putting food away in the correct places g. Storing food at the correct temperature h. Rotating stock i. Recognising deteriorated stock and disposing of it correctly	How to store food hygienically
	How food can become contaminated in storage and handling
	How contaminated food can harm people
	How to recognise that food has become unsafe to eat
	Consequences of not storing food hygienically
Keep work area and equipment clean by:	How to keep work area clean and tidy
j. Following procedures for cleaning k. Storing equipment and materials in the correct places l. Following procedures for disposing of food m. Recognising and acting on the signs of contamination or infestation	
	How to clean equipment
	Where to store equipment and materials
	How to clear away food waste
	Consequences of not keeping work area and equipment clean
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each

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	team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 4.9      Prepare and clean area and equipment**

### Unit Overview

This Unit contains the following elements:

- 4.9.1    Prepare for cleaning of area and equipment
- 4.9.2    Clean area and equipment

The Unit sets out the requirements for preparing and cleaning equipment in a packaging line, and the surrounding area. These actions may be required at the end of a shift/batch, as well as to prepare the line for maintenance work. Cleaning may be required prior to maintenance, and will be required again after maintenance work has been carried out. It is important that at the end of any cleaning and/or maintenance work, the packaging line and the surrounding area are returned to an acceptable condition before filling and packing is re-started. Extra vigilance may be required if maintenance has been carried out by personnel external to the company.

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to show that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- dismantled equipment parts that have been in contact with product
- procedures relating to legal requirements and quality standards
- plant/equipment, with some control instrumentation, several interactions between items of equipment and people, and a number of parameters within the operator's control
- problems relating to difficulties encountered in removing residue and damage to equipment

**Element 4.9.1 Prepare for cleaning of area and equipment**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Obtain correct authorisation to start cleaning operations	Authorisation procedures: <ul style="list-style-type: none"> <li>• who gives authorisation</li> <li>• in what form it is given, e.g. written or verbal</li> </ul> Consequences of not obtaining correct authorisation
Obtain the cleaning materials and cleaning equipment required	What cleaning materials and equipment are allowed for typical cleaning tasks Where the cleaning materials and equipment are stored How to prepare cleaning materials ready for use, e.g. dilution strength, and how to label such materials How to assemble any cleaning equipment for correct use Consequences of using incorrect cleaning materials and equipment
Ensure that the packaging line area and equipment as safe and ready to clean	Which pieces of equipment must be isolated and made safe and how to do this How to prepare the line and equipment for cleaning Which pieces of equipment must be removed and how to do this When residual materials/product/pack must be removed and how to do this Consequences of not correctly adhering to the procedure and of making inadequate preparations for cleaning
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed To whom the completed documentation

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	must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 4.9.2 Clean area and equipment**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Clean the area according to the specified procedures	What are the methods of cleaning different areas What additional cleaning is required after certain types of maintenance How to use all cleaning materials and cleaning equipment for the given tasks How to remove excess cleaning materials from the area, e.g. washing and drying Consequences of not following specified procedures
Clean the packaging line equipment according to the specified procedures	What are the methods of cleaning different pieces of equipment in the line What additional cleaning is required after certain types of maintenance How to use all cleaning materials and cleaning equipment for the given tasks How to remove excess cleaning materials from the packaging line equipment, e.g. washing and drying Consequences of not following specified procedures
Reassemble and/or reinstall any pieces of equipment correctly for next use	How to reassemble and/or reinstall equipment, including labelling of status How to check that the assembly and/or installation has been completed correctly Consequences of incorrect assembly and/or installation
Check thoroughly that packaging line area and equipment clean and contamination free, and safe for next use	What is the required standard of cleanliness and safety How to check that the packaging line area and equipment are clean and safe to use How to store or dispose of any residual cleaning materials Where to return any cleaning equipment used and what preparations and checks are required on this equipment Consequences of returning packaging line and equipment in an unacceptable state Consequences of incorrect storage, disposal, preparations and checks of all cleaning materials and equipment after use

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Check that packaging line is operating correctly for next use	What is the required standard of operation
	How to carry out an operational check Consequences of not checking that the packaging line is operating correctly before using, or handing over for use
Remove any protective clothing or soiled clothing	What is the required procedure for removal and disposition of clothing worn during cleaning activities
	Consequences of failing to follow correct procedure regarding clothing worn during cleaning activities
Confirm the status of the packaging line area and equipment as ready to use	How to confirm status
	Consequences of not adhering to confirmation procedure
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 4.10**

## **Work in aseptic/clean room conditions**

### Unit Overview

This Unit contains the following elements:

- 4.10.1 Prepare for work in aseptic/clean room conditions
- 4.10.2 Work correctly in aseptic/clean room conditions

The Unit sets out the specific requirements for working on packaging operations in aseptic/clean room conditions. 'Aseptic' means free from micro organisms which cause putrefaction or spoilage.

If you are working on liquid food products, asepsis is achieved by:

- Heat treating the product to destroy spoilage organisms
- Sterilising the rolls of laminated paperboard packaging (usually by passing the web through hydrogen peroxide) immediately before the pack forming process
- Sterilising the appropriate areas of the packaging line (using steam or chemical sterilants)
- Filling the product into the formed carton and hermetically sealing the pack, in a sterile environment, known as a 'clean room' (using sterile air overpressure)

Achieving and maintaining the sterility of the product, packaging material, machine and filling environment are all critical to the shelf life and microbiological safety of the finished liquid food pack for the consumer.

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to demonstrate that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- procedures relating to legal requirements and quality standards in an area where sterile products are made or where aseptic techniques are used
- documentation relating to packaging instructions and packaging records
- problems associated with documentation, equipment and materials, and faults in production quality

This unit is taken from Seta's suite of National Occupational Standards in Bioscience (unit 45).

**Element 4.10.1 Prepare for work in aseptic/clean room conditions**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Obtain the appropriate clothing and footwear	Where is the correct clothing and footwear located How to differentiate between clean and soiled/incorrect clothing and footwear Consequences of using soiled or incorrect clothing and footwear
Carry out personal wash correctly	What is the correct personal washing procedure Consequences of not observing correct personal washing procedure
Change into correct clothing and footwear	What is the correct changing procedure: <ul style="list-style-type: none"> <li>• Items to be worn</li> <li>• Sequence of changing</li> <li>• Measures to take to ensure clean clothing and footwear are not contaminated, e.g. by touching the floor</li> </ul> Consequences of not observing correct changing procedure
Leave changing room in clean and tidy condition	Where and how to store outdoor clothing and other personal effects What personal effects are not allowed on site, or to be taken into the area of the packaging operation Consequences of not observing correct procedures in changing room
Dispose of any waste correctly	How to dispose of any waste materials Consequences of incorrect disposal of waste
Follow the correct procedure for entering the aseptic or clean room area	What is the correct procedure Consequences of not following the correct entry procedure
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation	What documentation is to be used and

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accurately and legibly and at the required time	how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 4.10.2 Work correctly in aseptic/clean room conditions**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Carry out thorough check of line and surrounding areas for compliance with company policies	How to check the line and surrounding areas
	What are the likely areas of non-compliance, e.g. What are the potential contaminants in the packaging area and on the packaging line
	How to deal with instances of non-compliance
	Consequences of not carrying out line and surrounding area checks, and not dealing efficiently with any potential contaminants found
Carry out microbiological checks according to agreed procedures	How to take samples and carry out microbiological checks: <ul style="list-style-type: none"> <li>• frequency of sampling</li> <li>• number of samples required</li> <li>• how to take samples</li> <li>• how to maintain integrity of samples</li> </ul>
	What actions are to be taken on receipt of results
	Consequences of not carrying out microbiological tests correctly
Carry out appropriate environmental in-process checks correctly	How to carry out checks: <ul style="list-style-type: none"> <li>• frequency of checking</li> <li>• number of samples/readings required</li> <li>• how to take samples/operate environmental monitoring equipment</li> <li>• how to maintain integrity of samples</li> </ul>
	What actions are to be taken on receipt of results
	Consequences of not carrying out appropriate checks correctly
Work correctly in aseptic/clean room conditions	How to work in aseptic/clean room conditions
	Consequences of not following procedures correctly
Handle breakdowns/changes correctly	How to deal with breakdowns and changes of materials/product, and maintain sterility of the line
	How to clear away and dispose of damaged materials/packs
	Consequences of not handling breakdowns and changes according to agreed procedures
Follow exit procedures	How to leave the aseptic/clean room

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	conditions
	Consequences of not following the procedures correctly
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 4.11      Work with hazardous materials**

### Unit Overview

This Unit contains the following elements:

- 4.11.1 Prepare for work with hazardous materials
- 4.11.2 Work correctly with hazardous materials
- 4.11.3 Follow decontamination procedures correctly

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

To perform competently, you will need to demonstrate that you can operate in a range of conditions. You will need to demonstrate therefore that you can deal effectively with the following:

- visual checks of packs, product security and safety
- procedures relating to legal requirements and quality standards
- problems with equipment, hazardous and non-hazardous materials and packs, services and quality

This unit has been designed for use in any industry where hazardous materials are used e.g. pharmaceuticals, explosives, petro-chemical, oil and gas etc etc.

**Element 4.11.1 Prepare for work with hazardous materials**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE for working with hazardous materials
	How to change into PPE correctly
	How to wear PPE correctly
	Consequences of not following correct procedures for the wearing of PPE
Dispose of waste correctly	How waste should be disposed of
	Consequences of not disposing of waste correctly
Follow correct procedure for entering the workplace	How to enter the workplace correctly
	How the changing room should be left
	Consequences of not entering the workplace correctly
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 4.11.2 Work correctly with hazardous materials**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Confirm that the work area is safe	What constitutes safe working conditions How to carry out a safety check Consequences of not checking and confirming that the work area is safe
Follow correct procedures for working with hazardous materials	How to work with hazardous materials Consequences of not working correctly with hazardous materials
Follow correct exit procedure	How to leave the work area correctly Consequences of not following the correct exit procedure
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed To whom the completed documentation must be given The prescribed way of making any alterations to documents The procedure for maintaining security of the documentation

**Element 4.11.3 Follow decontamination procedures correctly**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Carry out thorough check of line and surrounding areas for compliance with company policies	How to check the line and surrounding areas What are the likely areas of non-compliance, e.g. What are the potential contaminants in the packaging area and on the packaging line How to deal with instances of non-compliance Consequences of not carrying out line and surrounding area checks, and not dealing efficiently with any potential contaminants found
Carry out microbiological checks according to agreed procedures	How to take samples and carry out microbiological checks: <ul style="list-style-type: none"> <li>• frequency of sampling</li> <li>• number of samples required</li> <li>• how to take samples</li> <li>• how to maintain integrity of samples</li> </ul> What actions are to be taken on receipt of results Consequences of not carrying out microbiological tests correctly
Carry out appropriate environmental in-process checks correctly	How to carry out checks: <ul style="list-style-type: none"> <li>• frequency of checking</li> <li>• number of samples/readings required</li> <li>• how to take samples/operate environmental monitoring equipment</li> <li>• how to maintain integrity of samples</li> </ul> What actions are to be taken on receipt of results Consequences of not carrying out appropriate checks correctly
Work correctly in aseptic/clean room conditions	How to work in aseptic/clean room conditions Consequences of not following procedures correctly
Handle breakdowns/changes correctly	How to deal with breakdowns and changes of materials/product, and maintain sterility of the line How to clear away and dispose of damaged materials/packs Consequences of not handling breakdowns and changes according to agreed procedures
Follow exit procedures	How to leave the aseptic/clean room

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	conditions
	Consequences of not following the procedures correctly
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 4.13      Enable learning through demonstration and instruction**

### Unit Overview

This Unit contains the following elements:

#### *Element*

- 4.13.1 Demonstrate skills and methods to learners
- 4.13.2 Instruct learners

The Unit sets out the requirements for providing instruction in the workplace to trainees. Trainees may be:

- New and inexperienced employees undergoing initial training
- Current employees being trained in the use of new equipment or processes

#### **This unit is appropriate for you if your role involves:**

- demonstrating skills and methods to learners
- instructing learners in procedures and processes

#### **The activities you are likely to be involved in:**

- demonstrating how equipment is used
- showing a learner how to do something
- giving learners instructions on what to do or how to carry out a particular activity
- deciding when you should use demonstration or instruction to encourage learning
- reviewing the potential use of technology-based learning
- checking on the progress of learners
- giving feedback to learners

**In order to carry out workplace instruction, learners must themselves have already demonstrated a satisfactory level of competence in each Unit and Element of this NVQ. Learners must be familiar with the detailed knowledge requirements of this qualification.**

This Optional Unit builds on the knowledge and practical competences required in Mandatory Units 1-6 and success in those Units is essential before commencing this Unit.

Safe working procedures must be followed at all times. Appropriate protective clothing must be worn and responsible behaviour observed, so that the safety of the product, personnel and all materials and equipment is maintained.

All relevant documentation must be available and checked as correct.

Any problems identified must be addressed effectively, and where possible, action taken to avoid recurrence.

Learners are expected to know and to be able to explain why each knowledge requirement is important

**Element 4.13.1 Demonstrate skills and methods to learners**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Carry out an analysis of the skills and methods which must be demonstrated and the order of the demonstration	What training programme is being undertaken by trainees
	What are the learners' current competences
	What are the learners' individual needs and learning styles
	Consequences of not carrying out a comprehensive analysis of training needs
Prepare for accurate and realistic workplace demonstration	What materials and equipment are required
	When will the demonstration be given and how will learners be informed
	Where will the demonstration be given and how to ensure that all learners will be able to observe clearly
	How to minimise disruptions and distractions
	Have the learners demonstrated knowledge and understanding of company and job-specific requirements with respect to Health and Safety
	What are the different options available for demonstration and how will these best suit the identified needs of learners
	Consequences of making inadequate preparations for demonstration
Agree clear and unambiguous objectives for the demonstration	With whom the objectives should be agreed
	How to communicate the objectives
	Consequences of not setting clear objectives
Carry out effective demonstration	What are the different ways of communicating instruction during the demonstration
	How to select the most appropriate way, taking account of the task being taught and the needs of the learners
	How to summarise information and emphasise what are the key learning points
	How to confirm learners' understanding, e.g. by asking questions and asking for explanations
	When and how to give learners the opportunity to practise the skill themselves

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	How to identify gaps in learners' knowledge
	How to give ongoing constructive feedback to learners and correct errors and misconceptions as they occur
	When to give feedback to learners
	How to encourage questioning
	How to deal with over-confidence
	When and how to give extra demonstrations to reinforce learning
	Consequences of not carrying out effective demonstration
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

**Element 4.13.2 Instruct learners**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE
	Consequences of not wearing the appropriate PPE
Carry out an analysis of training needs of learners	What training programme is being undertaken by trainees
	What are the learning outcomes of the instruction
	What are the learners' current competences
	What are the learners' individual needs and learning styles
	Consequences of not carrying out a comprehensive analysis of training needs
Prepare for effective instruction	What materials and equipment are required
	When will the instruction be given and how will learners be informed
	Where will the instruction be given and how to ensure that all learners will be able to participate
	How to minimise disruptions and distractions
	Have the learners demonstrated knowledge and understanding of company and job-specific requirements with respect to Health and Safety
	What are the different options available for instruction and how will these best suit the identified needs of learners
	Consequences of making inadequate preparations for instruction
Carry out effective instruction	What are the different ways of carrying out instruction
	How to select the most appropriate way, taking account of the agreed learning outcomes and the needs of the learners
	How to summarise information and emphasis what are the key learning points
	How to confirm learners' understanding, e.g. by asking questions and asking for explanations
	How to identify gaps in learners' knowledge
	How to give ongoing constructive feedback to learners and correct errors and misconceptions as they occur
	When to give feedback to learners

	How to encourage questioning
	How to deal with over-confidence
	When and how to give extra instruction to reinforce learning
	Consequences of not carrying out effective instruction
Give accurate and constructive feedback to learners on strengths and weaknesses via formal review sessions	What kinds of information should be recorded to support your feedback, e.g. examples of good and bad practice
	Why it is important to record information accurately
	How to deliver feedback, taking account of the specific needs of the learner
	Consequences of giving inaccurate or inadequate feedback
Support learners through the instruction process	Where can learners obtain additional help support and guidance
	How to draw up an action plan for learners
	Who else to involve in providing support to learners
	Consequences of providing inadequate support to trainees
Give accurate and thorough reports on learners to the relevant supervisor	What information to include in your report
	How should the report be presented
	Consequences of not providing accurate and thorough reports
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them
	What are the responsibilities of each team member
	Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul>
	How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it
	What information is required
	When the documentation must be completed
	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation

## **Unit 4.15      Contribute to improving effectiveness in the workplace**

### Unit Overview

This Unit contains the following elements:

#### *Element*

##### 4.15.1      Contribute to improving effectiveness in the workplace

This unit covers the skills and knowledge that you will need to contribute to improving effectiveness within the manufacturing environment in accordance with approved procedures and practices.

It involves working effectively in relation to your own and others' work, informing others of any delay which may affect them, reviewing your objectives and targets for your personal development to ensure that your skills and knowledge match those required and are employed effectively within the manufacturing environment. It also covers dealing with problems that affect the manufacturing process, contributing to and communicating any opportunities for improvements that could be made to working practices and procedures.

Your responsibilities will require you to comply with organisational policy and procedures for the activities undertaken, and to report any problems with the personal development activities, problem solving or improvement activities that you cannot personally resolve, or are outside your permitted authority, to the relevant people. You will be expected to take personal responsibility for your own actions and the work that you carry out.

Your underpinning knowledge will be sufficient to provide a good understanding of the workplace organisational activities, and the area you are working in and provide an informed approach to working efficiently and effectively in a manufacturing environment. You will understand the need to work efficiently and effectively and its application, and will know about the areas you need to consider when agreeing your development objectives and targets, dealing with problems and contributing to workplace improvements, in adequate depth to provide a sound basis for carrying out the activities safely and correctly.

You will understand the specific safety precautions required when working in the manufacturing environment. You will be required to demonstrate safe working practices throughout and the responsibility you owe to yourself and others in the workplace.

### **Unit Overview**

This unit on improving workplace effectiveness involves:

- Working to meet work flow and quality targets
- Reviewing personal development objectives and targets
- Contributing to problem solving
- Identifying opportunities for improving work place effectiveness
- Working in ways which maintain the safety of yourself and others

#### **Scope:**

*You must show that you can:*

Work effectively with colleagues to include **three** of the following:

- colleagues in same work group
- colleagues in other work groups
- immediate supervision / line management
- personnel in other departments
- external contacts
- those for whom you have responsibility

Review personal development objectives and targets to include **one** of the following:

dual or multi skilling

training on new equipment / technology

increased responsibility

understanding of company working practices, procedures, plans and policies

other specific requirements

Deal with problems affecting the manufacturing process to include **three** of the following:

- materials
- tools and equipment
- machinery or plant
- drawings / specifications
- job instructions
- production quality
- production output/timescales
- people
- safety
- activities or procedures

Contribute to organisational procedures for identifying opportunities for improvement to **one** of the following:

working practices

working methods

quality

safety

tools and equipment

suppliers

- internal communication
- customer service
- training and development
- teamwork
- other

Present ideas for potential improvements using **two** of the following methods:

- orally
- written
- electronic
- visually aided

**Element 4.15.1 Contribute to improving effectiveness in the workplace**

**On completion of this Element learners will be able to:**

<i>Practical competence</i>	<i>Knowledge</i>
Use the appropriate PPE	What is the appropriate PPE Consequences of not wearing the appropriate PPE
Work safely at all times	What are the relevant health and safety requirements How to obtain and use equipment safely Consequences of not working safely
Work effectively in relation to own and colleagues' work and the company's requirements	What factors influence effectiveness How to communicate effectively What potential difficulties and delays might be encountered and how to deal with them Consequences of not working effectively
Work within limits of responsibility and authority	What are the limits of responsibility and authority Consequences of not working within limits of responsibility and authority
Contribute to reviewing personal training and development	Why it is important to contribute to personal development How to identify training and development needs Consequences of not reviewing personal training and development
Identify opportunities for improvements to working practices and procedures	What are the benefits of continuous improvement How to identify opportunities Consequences of not identifying improvement opportunities
Share suggestion for improvements with others	How to communicate suggestions Consequences of not sharing ideas
Identify and deal with problems effectively	What are the typical problems which might occur and how to identify them What are the responsibilities of each team member Procedures for reporting problems, including: <ul style="list-style-type: none"> <li>• who to tell</li> <li>• within what timescale</li> <li>• which documents to complete</li> </ul> How to deal with problems
Complete all required documentation accurately and legibly and at the required time	What documentation is to be used and how to obtain it What information is required When the documentation must be completed

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	To whom the completed documentation must be given
	The prescribed way of making any alterations to documents
	The procedure for maintaining security of the documentation