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Before you begin

This learner guide is based on the unit of competency *TLIA3026 Monitor storage facilities*, Release 1. Your trainer or training organisation must give you information about this unit of competency as part of your training program. You can access the unit of competency and assessment requirements at: www.training.gov.au.

How to work through this learner guide

Your trainer will advise which parts of the learner guide you need to read, and which activities you need to complete. This learner guide will help you in your training.

Icon	Feature	How you can use each feature
	Learning content	Read each topic. Speak to your trainer if you need help.
	Activities	Activities give you the opportunity to put your skills and knowledge into action. Your trainer will tell you which activities to complete.
	Video clips	Where you see a QR code, you can use a smartphone or tablet to access video clips about the content. For information about how to download an app that will read the QR code, or for more help, visit our website: www.aspirelr.com.au/help
	Workplace examples	Workplace examples at the end of each topic show how your learning applies in practice.
	Summaries	Key learning points are provided at the end of each topic.
	Words to remember	<p>As you read the learner guide, use the table at the back of the book to write down any words you need to remember.</p> <p>There is a space for you to write the word and a space for you to write down what the word means.</p> <p>You can also access a full glossary of terms via this QR code.</p>



Permit and licence requirements

Some warehouse tasks and activities require specific permits and licences.



Permit and licence requirements may vary between each state and territory. Some storage facilities may require licensing to store, handle or process dangerous goods, explosives or hazardous substances. Others may require licensing and permits to operate particular equipment or undertake hazardous tasks.

Permits and licences may include:

- working at heights permit
- confined space work permit
- licence to operate a forklift truck
- licence to operate a boom-type elevating work platform.

WHS legislation

Health and safety laws in each state and territory require employers to provide and maintain a working environment that is safe and without risk to the health of workers or others in the workplace.

In Australia, Safe Work Australia and health and safety authorities in each state or territory enforce health and safety legislation in the workplace. Employers and storage facility operators must provide workers with information, instruction, training and supervision so they can work in a safe manner without risk. Workplace procedures and guidelines are written to ensure workers comply with health and safety laws and regulations.

The most common safety issues experienced by workers in warehouse settings include:

- muscular stress
- falls, trips and slips
- being hit by a moving object
- vehicle and mechanical incidents.

To provide a safe workplace for all workers, businesses must meet the requirements set out in the health and safety laws and regulations in their state or territory.

Organisations can comply with health and safety legislation by:

- assessing workplace tasks and the potential WHS hazards and risks
- identifying potential WHS issues during the design, construction and operation of storage facilities
- identifying work areas and processes that present a risk to health and safety, including environmental conditions
- providing practical tools to help identify hazards and develop appropriate risk controls
- implementing controls to eliminate or reduce risks.

You can find out more about WHS requirements at:

- www.safeworkaustralia.gov.au/sites/SWA



Read the following workplace example to see how the concepts you have learned are applied in a real-life situation.

Workplace example for Topic 1

Part of Joe's role at Warehouse Manufacturing Supplies is to monitor the storage facility to ensure a safe and healthy workplace for all staff. As part of his role, Joe:

- conducts regular safety audits to identify new hazards in the workplace
- assesses the risks to workers
- develops risk controls
- develops and updates workplace procedures to outline what workers must do to prevent injury to themselves and others.

Bob, the manager of the storage facility, tells Joe that the business is about to replace its counter-balance forklifts with new reach trucks that are more efficient and safe, with a greater lifting capacity. Joe explains to Bob that for the business to comply with its WHS obligations, all relevant workers must undergo the proper workplace training and supervision before using the vehicles in the warehouse. Joe has the qualifications and experience to conduct this additional training.

During a training session, Joe notices that the new reach trucks require a much smaller aisle width than the old counter-balance forklifts. Joe realises that by using the new reach trucks, the entire warehouse layout can be changed to maximise storage space by making the aisles narrower and stocking more inventory. Joe alerts Bob to his discovery and together they devise a plan to redesign the site layout. Bob tells Joe that he will need to look at the warehouse management system to determine the amount of time and resources required to complete the redesign with minimal disruption to business operations.

Watch the workplace example video here.





Topic 2 | What you need to do to monitor storage facilities

Your workplace will have its own systems and processes in place for monitoring storage facilities. This will include tracking and accounting for the items kept in your warehouse.

In this topic you will learn how to:

2A Apply workplace rules to monitor storage facilities

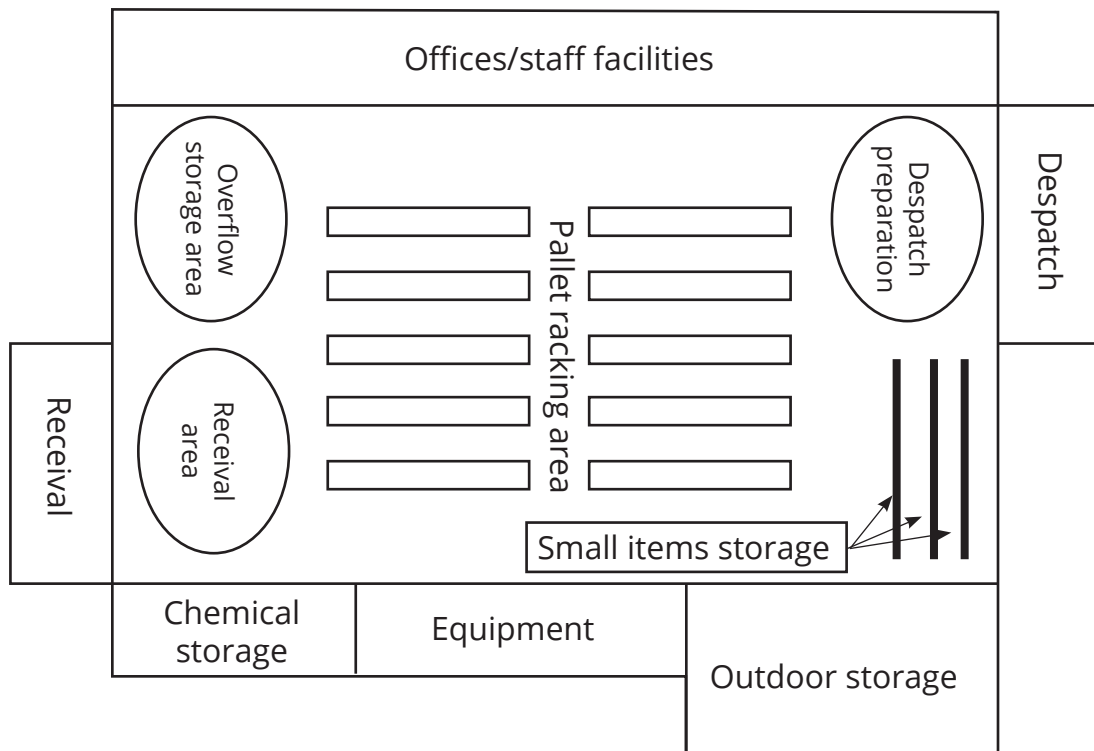
2B Determine site functions, operations and processes

2C Monitor storage operations

2D Take appropriate action

You need to regularly access, confirm and check inventory levels so that you maintain the right level of stock to meet customer demands. You will also need to monitor storage facility capacity and equipment performance to ensure that business operations run smoothly, and product quality is maintained.

Issues may arise where there are changes to storage requirements, or if you discover discrepancies (differences) in inventory lists. In these situations, you will need to take appropriate action and document the outcomes using workplace procedures.



Layout issues to consider

All storage facilities have their own specific layout issues.

These issues are usually related to the product type or category. You will need to consider where products must be stored to maintain their quality/integrity, how they should be transported or moved around the facility, whether the products require short- or long-term storage, and what PPE is required to handle them.

Here are some factors to consider when planning and designing the layout of storage facilities.

Flow

Consider whether there is a logical sequence of operations within the warehouse. Each work task should be located as close as possible to the task that takes place before it and the task that follows it. The controlled and uninterrupted movement of materials, people and traffic will ensure safe and efficient warehouse operations.

Accessibility

Workers must be able to easily and safely access products and stock at all times. Safe work practices and staff training are essential when using lifting and storage equipment. Inventory records must be kept up to date so that items are stored in the correct location.

Storage bins



Storage bins may be used to store small products, such as screws and bolts. These systems may be a series of bins stacked on a bench or a complex automated binning system controlled by a computer.

Silos



A silo is a structure used for storing bulk materials such as grain, fertiliser or mineral powders. Silos can be kept inside or outside depending on the contents.

Cold storage



Some products, such as fresh food, may need to be stored in a refrigerator, freezer or cool room. Controlled atmosphere storage may be required, with oxygen and temperature levels closely monitored to ensure the quality of products.

Chemical storage systems



Safety cabinets and dangerous goods storage solutions can be used to store a wide range of hazardous materials and substances, including hazardous chemicals and flammable liquids. Chemical storage systems need regular monitoring to ensure workers are not exposed to an atmospheric concentration of a hazardous substance.



Activity 5

Question 1

Draw a line from the image on the left to match the correct storage system on the right.



* Cantilever racking



* Cold storage



* Pallet racking

Question 2

Identify and describe **two** storage facility hazards and actions that could be taken to control the risks.

Ease of retrieving records

When determining whether a paper-based system or a computerised system is best, consider how easy it is to retrieve records.

In paper-based record systems, it may be easy to locate records that relate to basic enquiries about recent transactions. However, tracking older records may be time-consuming. Generally, a computerised system will provide quicker access to data, as long as important reference numbers or other transaction details are known.

The ease of retrieving records or data may depend on:

- how easy they are to find, including the type of document and its storage location
- confidentiality and security issues, including information that may be commercial-in-confidence
- any WHS issues involved in accessing records
- whether documents are manually or electronically stored, as manual records will typically take longer to retrieve.

Use labelling systems

For inventory systems to work effectively, stock must be correctly identified. This is usually done by labelling.



Some regulations govern what information needs to be on a product, particularly in relation to food products. Labels should indicate the product's handling and storage requirements. Other supporting documentation may also be necessary to clarify handling and storage requirements; for example, products accompanied by SDSs.

The storage area for a product is often labelled so that workers know exactly where and how the product should be stored. The product may already be labelled when it arrives at the warehouse, or your organisation may have created a labelling system to meet its own operating requirements.

Labelling systems include:

- batch coding, which identifies the quantity produced in one operation
- barcodes, which are stock codes that provide information about the product, such as its price, destination and location
- identification numbering systems, such as serial numbers
- symbols for safe handling
- the ADG Code and HAZCHEM symbols.



Summary of Topic 2

1. You must apply all workplace rules about monitoring storage facilities so that you are aware of the risks in your workplace, and how to avoid injury or illness while performing tasks.
2. Safe work procedures document the risks associated with a work task and outline the appropriate risk control measures in a sequence of steps to do the task safely.
3. Goods must be stored safely in a warehouse and must not become a risk or potential hazard to yourself or others who work in the warehouse.
4. Storage facility operators have prescribed responsibilities to provide workers with information, instruction, training and supervision to enable them to perform work in a safe manner without risk to their health or safety.
5. Each zone in a storage facility will use a specific system that is designed to store products safely and securely, and in a way that maintains the quality and integrity of that product.
6. Checklists can help you recognise workplace hazards by systematically checking an area for risks.
7. Large warehouses with fast stock movement may have developed their own customised stock system that meet their specific needs.
8. To keep warehouse operations running smoothly and effectively, operators must coordinate the work of their staff in real time.
9. Discrepancies in inventory stock will either show a surplus (too many items) or deficit (too few items). Discrepancies could be caused by a variety of factors.
10. Incident response is an organised approach to addressing and managing the aftermath of a procedural breach, incident or emergency.