



Government of **Western Australia**
Department of **Mines, Industry Regulation and Safety**
Resources Safety

Dangerous Goods Safety Guidance Note

Dangerous goods emergency plans for small businesses

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Introduction

The definitive guidance on the preparation of emergency plans is found in Australian Standard AS 3745 Planning for emergencies in facilities. This Standard has been approved by the Minister as an approved code of practice under section 20 of the *Dangerous Goods Safety Act 2004* (the Act). It provides guidance to organisations of all sizes and all types of facilities with all types of emergency hazards, but there is no specific guidance on particular hazards or dangerous goods. Being applicable to larger organisations, a lot of detail is given, much of which is not relevant to small owner-operated sites with less than five occupants.

This guidance note assists small business operators of licensed dangerous goods sites to prepare an emergency plan, as required by regulation 75 of the Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007 (Storage and Handling Regulations).

Note: Large and medium-sized companies should refer directly to AS 3745. Compliance with the Standard is not mandatory, but adherence to its requirements provides a legal defence against alleged non-compliance with the emergency planning provisions of the Act and associated regulations.

Emergency plans

Emergency planning is the process of safety planning with the objectives of:

- protecting people
- minimising damage to property and the environment
- minimising the disruption to operation in the event of an emergency.

The outcome is a plan that considers the hazards associated with dangerous goods on site and potential emergency scenarios, and includes instructions and the provision of resources to help occupants to respond efficiently and effectively to on-site emergencies involving those goods.

Potential emergency situations involving dangerous goods include:

- fires
- explosions
- spills and leaks
- gas releases
- medical emergencies.

The emergency plan should be simple, flexible, tested and up-to-date. It needs to be available to all site personnel, who should be trained in the emergency response procedures. Regular practice sessions should be held to ensure that the written procedures can be successfully implemented.

In a few cases, if small business operators store more than ten times manifest quantities of dangerous goods, then the emergency plan needs to be supplemented with a FES emergency response guide. This is in the form of a Department of Fire and Emergency Services (DFES) template, which is completed by the operator to give the emergency services responder vital information in a concise format. Information on how to obtain the template is contained in the Department of Mines, Industry Regulation and Safety information sheet on emergency planning for licensed dangerous goods sites, which summarises an operator's emergency planning requirements under regulations 75, 76A and 76B of the Storage and Handling Regulations.

Five-step approach to emergency planning

1. Decide who is responsible for preparing the plan

For small businesses, the plan preparation is usually taken on by one or two people. For larger organisations, this typically means forming an emergency planning committee.

2. Identify the dangerous goods hazards

The hazards posed by the dangerous goods on site should have been assessed under regulation 48 of the Storage and Handling Regulations. As part of that risk assessment process, the hazards would have been listed, and the likelihood and consequences of the risks evaluated.

A good start for hazard identification is to list the intrinsic hazards of dangerous goods as described in their safety data sheets (SDSs).

3. Write the plan

The written emergency plan should cover at least the seven elements described in the next section.

4. Train and test

Training needs to be conducted for execution of the plan. Everyone on site must know their roles and what they need to do. This includes:

- locations of first aid and emergency equipment
- emergency services phone numbers to ring and what information to provide
- when to evacuate
- how to get to the assembly point.

After training, the plan must be tested with a practice emergency exercise and evacuation.

5. Review and correct

To ensure the emergency plan stays up-to-date and effective, review it:

- at least every three years
- after any emergency
- when shortcomings are identified from a practice emergency exercise.

Questions to ask after an emergency or exercise include:

- Did the automatic shut-down work?
- Was the fire extinguisher readily available?
- Was the emergency escape door unlocked?
- Did the emergency showers and eyewashes work?

Elements of the emergency plan

Plan title

The name and address of the business should be clearly shown at the beginning of the emergency plan.

The plan title on the cover page should also include the date the plan was written or last revised, and the names of the emergency manager and back-up manager and their contact details (including after-hours phone numbers).

Site detail

The site details must contain the following information:

- name, location, address and type of business operations (e.g. fuel sales, ice manufacture, retail-goods warehouse)
- map of the facility and surrounding area, including a site plan to show the location of:
 - isolation points for essential services (e.g. power, gas, water)
 - fire mains

- drains
- emergency resources on site (e.g. SDSs, fire extinguishers, spill kits, breathing apparatus, hose reels).
- number of persons on site during and after business hours
- security arrangements for the site.

Where the site is in a rural or remote location, it is a good idea to provide the GPS co-ordinates to help emergency services find the site.

Dangerous goods hazard details

The most likely potential emergency scenarios need to be identified. Examples include:

- small fire involving a flammable liquid
- large fire involving toxic combustion products
- minor gas leak involving toxic gas
- major gas leak involving flammable gas
- small chemical spill of a toxic liquid
- large chemical spill of a concentrated, strong acid.

The dangerous goods hazards and emergency scenarios that are specific to the site must be determined as precisely as possible. To do this, consider the types and quantities of all dangerous goods stored or handled on the site and a description of their hazardous properties.

The Storage and Handling Regulations require the following duties, which may be useful when identifying the dangerous goods hazards:

- regulation 48 – preparation of a risk assessment for the dangerous goods
- regulation 78 – preparation of a manifest and site plan
- regulation 79 – availability of safety data sheets.

Under regulation 76A of the Storage and Handling Regulations, if the potential impact of a dangerous goods emergency extends to an adjacent property, the occupiers of that site must be informed of the risks from the dangerous goods.

The plan must include details of specific actions to be taken for particular emergencies, together with an assessment of whether the site is capable (e.g. skills, resources) of undertaking the required actions.

Any additional resources needed to respond to an emergency need to be identified.

Emergency equipment

List the emergency response resources identified above and ensure they are available and readily accessible. Show their locations on the dangerous goods site plan.

If appropriate, provide the arrangements for obtaining additional external resources.

Emergency response actions

Emergency response actions are those which control and mitigate or lessen the consequences of each of the potential emergency scenarios identified for the site. They should include step-by-step instructions to be followed for each scenario.

The emergency plan must indicate the emergency manager for the site and, if the site is not operated by a single person, a back-up emergency manager. Clearly define their roles and responsibilities.

Alarm initiation

If an alarm system is fitted, the emergency plan describes the alarm and how it is operated, tested and maintained.

Provide details on:

- who can raise the alarm, or how it will be automatically activated
- where alarm points are located (on dangerous goods site plan)
- who receives the alarm, or what automatic response the alarm activates (e.g. autogas shut-down)
- what actions are taken in response to the alarm being raised, including who will respond
- how the alarm is confirmed or cancelled.

Evacuation

An evacuation procedure must be established and include:

- who is responsible for ordering an evacuation
- under what conditions an evacuation will occur
- where to assemble (including alternative locations)
- how personnel will be accounted for.

Communication

List the contact details for the emergency services. The plan must set out the procedures for contacting the emergency service agencies (e.g. DFES) and the exact advice to be given on contact.

List the contact details of any external persons that are involved in the emergency response.

List the contact details of relevant neighbours that may be affected and advice given about the action to be taken for specific emergencies (e.g. close windows and doors, prepare for evacuation).

Provide details of on-site communication systems (e.g. public address system at swimming pool).

Post-emergency follow-up actions

Emergency termination and debrief

The emergency plan should include procedures that:

- specify what conditions apply to allow the termination of the emergency
- assign the authority and responsibility to call the emergency over.

The plan should also identify debriefing arrangements for all parties involved or affected by the incident.

Site remediation

The site operator is required, as far as is practicable, to take immediate action to make the site and surrounding area safe, and to clean-up and dispose of any leaked or spill dangerous goods.

The emergency plan should cover arrangements for the clean-up, safe storage and disposal of contaminated material and remediation of the site.

Incident investigation

To prevent future incidents, it is important to conduct an incident investigation to identify what led to the incident. The results of the investigation can then be used to review and improve the emergency plan.

Notification of Chief Dangerous Goods Officer

The Chief Dangerous Goods Officer must be notified of all “reportable incidents”.

A guideline and form for reporting incidents are available from the dangerous goods accidents and incidents section of the Department of Mines, Industry Regulation and Safety website.

Further information

Contact Resources Safety – Dangerous Goods Safety Branch:

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