

GUIDELINES FOR MAJOR HAZARD FACILITIES



A – INTRODUCTION TO THE GUIDELINES

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1 Introduction

The purpose of the Dangerous Goods Safety Management (DGSM) Act 2001 and supporting Regulation is to protect people, property and the environment from harm from hazardous materials. The legislation imposes safety obligations on occupiers, employees and others associated with Major Hazard Facilities (MHFs) to achieve this.

A series of guidelines, of which this is the first, have been prepared by the Chemical Hazards and Emergency Management (CHEM) Unit to assist the occupier in meeting their obligations under the legislation. The guidelines address the obligations specific to MHFs contained in Part 4 and Sections 126 and 127 of the DGSM Act. There are other obligations in the Regulation that are not addressed by these guidelines.

1.1 Legislative Requirements

The occupier of a MHF must comply with all the requirements of the Act and Regulation as apply to workplaces, dangerous goods locations (DGLs) and large dangerous goods locations (refer to “A Guide to the Dangerous Goods Safety Management Act 2001” available from the CHEM Unit website www.emergency.qld.gov.au/chem/publications/). In addition to these requirements there are specific MHF obligations.

For MHFs, the occupier has safety obligations which collectively target the safe operation of the facility through the minimisation of risk to people, property and the environment. It is intended that, through compliance with these obligations, the occupier of a MHF will achieve an overall facility risk that is acceptable.

The MHF obligations include:

- notifying the regulatory authority of storage quantities of hazardous materials above prescribed quantities;

- producing a systematic risk assessment and implementing risk reduction measures;
- developing emergency plans and procedures;
- educating and training employees to be able to fulfil their roles safely;
- implementing a safety management system;
- consulting and informing neighbours about facility hazards and safety measures; and
- submitting a safety report.

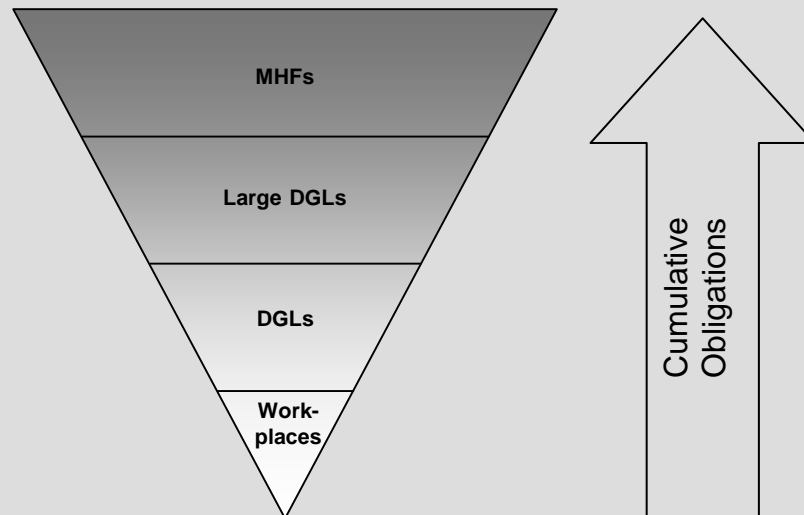
In addition there are supporting obligations with respect to modifications, near misses and accidents to supplement the above requirements. Timeframes are prescribed in the legislation for the major activities and directives and penalties exist for non-compliance.

The legislation has been developed to give effect to the safety report approach contained in the National Standard for Control of Major Hazard Facilities [NOHSC:1014(1996)] and its supporting Code of Practice [NOHSC:2016(1996)]. This approach is consistent with that taken by regulators across Australia with a view to standardising on compliance requirements.

There is an obligation on occupiers of potential MHF sites to notify the regulatory authority no later than 6 months prior to commencement of operations. Once this notification has been received, the regulator will review the submission and advise whether the facility will actually be classified as an MHF.

Guide Note 1 – Layers of Obligation

The occupier of a MHF has specific MHF obligations. However the occupier must also discharge all those requirements under the Act and Regulation that apply to large DGLs, DGLs and workplaces.



1.2 Timeframes

The timeframes in the legislation implicitly set deadlines for completion of the major activities. The deadlines should be adhered to as timing is crucial and copies of reports from each activity may be requested as each stage is completed.

Once notification has been given that a site is classified as a major hazards facility, it has three months to produce and submit their safety report and supporting documentation. All new or upgraded sites will need to have completed and submitted their safety reports prior to start of operation.

2 Guidelines

In order to facilitate compliance with the legislation, a set of guidelines prepared by the CHEM Unit have been issued to explain, in practical terms, the intent of the legislation and how it might be implemented. The guidelines have been written primarily to provide additional information and assistance to occupiers to enable them to better understand and fulfil their obligations. The guidelines, however, are also of relevance to employees and communities neighbouring MHFs who may wish to learn more about the regulatory process. The guidelines expand on the legislation and provide suggestions on how compliance with the major requirements might be achieved. They can be downloaded from the CHEM Unit web page at www.emergency.qld.gov.au/chem.

The guidelines include the following generic headings:

- sections of the Act relevant to the guideline;
- sections of the Regulation relevant to the guideline;
- a summary of the occupier's requirements; and
- further reading.

This first guideline - *A - Introduction to the Guidelines* - sets the scene for subsequent guidelines and provides an introduction to the safety report process. The safety report is the means of describing the management of safety at the MHF and demonstrating that this leads to an overall facility risk that is acceptable.

The following guidelines are also available:

B - Notification and Classification

Where a possible MHF has a quantity of hazardous material greater than the amounts prescribed in Schedule 2 of the DGSM Regulation 2001, this guideline details the notification process and describes the classification procedure undertaken by the regulatory authority.

C - Systematic Risk Assessment (SRA)

This guideline provides guidance on the completion of the SRA. Hazard identification and risk assessment techniques are discussed and the concept of risk being ‘as low as reasonably practicable’ is introduced.

D - Emergency Plans and Procedures

The content of emergency plans is discussed in this guideline along with consultation processes, review processes, the provision of information and response to a hazardous materials emergency.

E - Education and Training

The requirement for employees to have the appropriate standard of competency to safely carry out their duties is discussed in this guideline along with details on how to maintain those standards.

F - Safety Management Systems (SMS)

This guideline provides guidance on the content and structure of an occupier’s SMS, addressing key features such as framework, commitment and leadership, planning, implementation, monitoring, measurement and evaluation and auditing and review.

G - Community Consultation

Details of the community consultation process as required by the Act are addressed in this guideline. The methods for identifying the consultation area and who to consult are explained with details of the content of the information to be provided to the community. The CHEM Unit publication *Community Consultation and Communication Guidelines* provides further details on consultation methodologies.

H - Modifications

Where a modification at the facility could significantly alter the risk, this guideline explains what constitutes a modification and a significant alteration to risk.

Notification of changes, review processes, education and training and the safety report update are also discussed in relation to modifications.

I - Accidents and Near Misses

This guideline explains what constitutes a major accident or near miss and the notification process required to be followed. The processes of investigation, reporting and consultation are also discussed.

J - Safety Report

This guideline explains the structure and content of the safety report to be provided to the regulatory authority. The level of detail required of the SRA, SMS, emergency plans and procedures, education and training, community consultation and demonstration of adequacy in the safety report is explained.

Safe Storage and Handling of Dangerous Goods - Guidelines for Industry

This guideline provides information to enable occupiers of workplaces, DGLs, large DGLs and MHFs to discharge their requirements under the Act and Regulation.

Community Consultation – Community Consultation and Communication Guidelines

This guideline is designed to assist occupiers of MHFs in their community consultation process in order to comply with DGSM 2001 legislation.

Emergency Plans: Guidelines for Major Hazard Facilities

This is an original publication on emergency planning by the CHEM unit and Queensland Fire and Rescue Authority which adds more background to emergency planning.

Further guidelines may be issued in the future as required.

3 Safety Report Process

In order to comply with Part 4 of the Act, the occupier must provide to the regulator a Safety Report no later than three months prior to the planned commissioning date for the facility. The intent of this report is to demonstrate to the regulator that the occupier understands and is capable of managing the facility risk in accordance with the Act. This report will bring together key aspects of the Systematic Risk Assessment (SRA), emergency planning, employee education and training, Safety Management System (SMS) implementation, and community consultation reports. Any revisions which may have occurred during the compliance process would be included.

While it is not a requirement of the Act that these individual reports be submitted to the regulator with the Safety Report, it would be expected that they would be provided as they would provide necessary background details to the Safety Report such that the Safety Report can be reviewed. In addition, they will be subject to subsequent audit.

To sustain the required level of progress and achieve a successful outcome, substantial effort will need to be put into the planning and development process for compiling and collating the information needed to complete all elements of the safety report. Some elements may be ‘new territory’ for some facilities or organizations and require special consideration. To be comprehensive and integrated, the various elements of the safety report will need to be linked to show commonality of purpose and be sufficiently detailed to provide transparency of intent. This may require a dedicated commitment to resourcing of both people and time. Detailed early planning is likely to be essential if the goal of a safety report that complies with the legislation is to be achieved.

Attention to the following issues should assist in the safety report process:

- **Prepare early**

develop a plan early using the legislative timeframes as a guide. If it is apparent that the facility will be classified as a MHF, do not await confirmation but make full use of the period in the project design and concept phase prior to application to review the requirements of classification under the DGSM Act and formulation of response. These should be part of the original timeline of the overall project, and be planned for and resourced accordingly. Consider the safety report philosophy – What are the aims and objectives? What is the optimum process to follow? Ensure employees are involved early in the process to increase their awareness, as an element of their training and to enhance the effectiveness of the SRA. Be aware that producing a SRA and/or refining a SMS for a complex facility will be very time and resource consuming.

- **Think through the linkages**

a successful final outcome will depend on clear linkages being established throughout the entire process. Hazard scenarios should clearly link to appropriate risk assessments, adequate risk reduction measures, relevant employee training, specific emergency plans, a supportive safety management system and concise community consultation.

- **Establish transparency**

avoid unsubstantiated assumptions. When completing the SRA do not disregard possible major hazard scenarios without supporting evidence. Aim to make the hazard identification process followed, the assumptions made, the risk assessment methodologies used and the risk reduction measures adopted as transparent as possible. This will provide relevance for subsequent training, set the direction of the emergency plans and safety management system and aid community consultation.

- **Demonstrate adequacy**

ensure the final safety report clearly demonstrates the adequacy of the measures taken at the facility to minimise risk as far as reasonably practicable. Are risk

reduction measures ‘fit for purpose’, have they been fully implemented and are systems in place to ensure they stay implemented?

Guide Note 2 – Key Issues in the Safety Report Process

Key issues to assist in the safety report process:

- prepare early – maximise the time available to you;
- develop a plan and resource accordingly;
- develop a clear major hazard safety philosophy and set objectives;
- include employees in the process earlier rather than later;
- establish clear linkages;
- ensure transparency; and
- demonstrate adequacy.

4 Review Process

Once the safety report has been submitted, it will be reviewed for compliance with the legislation. The reviews will take the form of desktop audits and on-site compliance audits.

The safety report and supporting documentation will be reviewed to ensure they demonstrate that the measures put in place ensure that risk from a major accident to people, property and the environment has been minimised as far as reasonably practicable. Evidence will be sought to show that a thorough hazard identification and risk assessment process has been completed, targeted risk reduction measures have been established, appropriate employee training has been provided, community consultation has taken place, adequate emergency plans have been developed and a supportive safety management system has been implemented. Evidence of direct linkages between all of these activities will also be sought.

The reviews will be conducted by appropriate government agencies.

As stated in the legislation, notwithstanding updates following modifications, safety reports will need to be reviewed and updated by occupiers at least once every five years.

5 Additional Information

The guidelines, additional information or clarification of any of the issues raised in the guidelines can be obtained by contacting the CHEM Unit of the Department of Emergency Services at any of the following addresses:

Telephone: (07) 3247 8444

Fax: (07) 3247 8433

E-mail: chem@emergency.qld.gov.au

Web: www.emergency.qld.gov.au/chem

Postal: GPO Box 1425, Brisbane, QLD 4001, Australia

Street: Emergency Services Complex
Cnr Kedron Park and Park Rds
Kedron
Brisbane, QLD 4031

Copies of the Dangerous Goods Safety Management Act 2001 and Regulation can be obtained from the following sources:

Hard copy: Queensland Government Printing Office
(GOPRINT)
371 Vulture St
Woolloongabba
Brisbane, QLD 4102
Tel: (07) 3246 3399

Web: www.emergency.qld.gov.au/chem