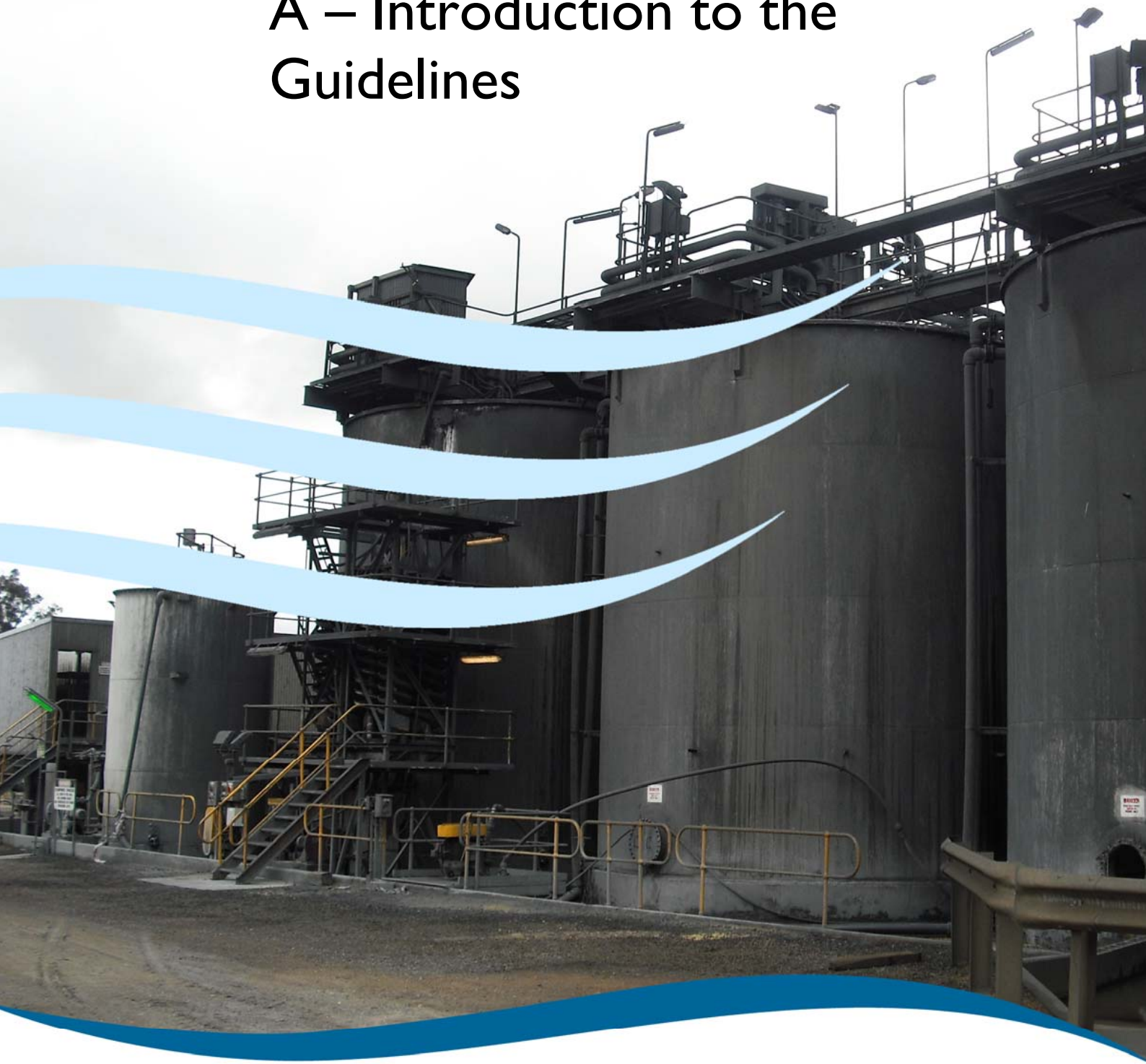


Guidelines for Major Hazard Facilities A – Introduction to the Guidelines



Disclaimer

This information is for guidance only and is not to be taken as an expression of the law. It should be read in conjunction with the *Dangerous Substances (Safe Handling) Act 2005*, the *Dangerous Substances (Safe Handling) Regulation 2009* and any other relevant legislation. Copies of the legislation can be purchased from Print Applied Technology: call (03) 6233 3289 or free call 1800 030 940. It is also available on the Internet at www.thelaw.tas.gov.au

Acknowledgement

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I Introduction

The purpose of the *Dangerous Substances (Safe Handling) Act 2005* (the Act) and supporting *Dangerous Substances (Safe Handling) Regulations 2009* (the Regulations) is to protect people, property and the environment from harm from dangerous substances by ensuring that the dangerous substances are handled safely and the facilities where the dangerous substances are handled are managed and operated safely. The legislation imposes safety obligations on occupiers, employees, manufacturers, importers, suppliers, and others associated with the operation of such facilities and in particular Major Hazard Facilities (MHFs) to achieve this.

A series of guidelines, of which this is the first, has been prepared by Workplace Standards Tasmania (WST), a division of the Department of Justice, to assist the occupier in meeting their obligations under the legislation. The guidelines address the obligations specific to MHFs contained in Part 4, Divisions 1, 2 and 3 of the Act.

I.1 List of Acronyms

- AFARP – As far as reasonably practicable = ALARP
- DS – Dangerous Situation
- DSE – Dangerous Substances Emergency
- EP&Ps – Emergency Plans and Procedures
- LDSL – Large Dangerous Substances Location
- MHF – Major Hazard Facility
- NOHSC – National Occupational Health and Safety Council
- PMHF – Possible Major Hazard Facility
- SMS – Safety Management System
- SR – Safety Report
- SRA – Systematic Risk Assessment
- the Act – *Dangerous Substances (Safe Handling) Act 2005*
- the Regulations – *Dangerous Substances (Safe Handling) Regulations 2009*
- the Secretary – The Secretary of the Department of Justice
- WST – Workplace Standards Tasmania

1.2 Legislative Requirements

1.2.1 Notification and Classification

Sections 33, 34, 35 and 36 of the Act require the occupier of a Possible Major Hazard Facility (PMHF) to notify the Secretary accordingly so that the Secretary can classify the facility as a MHF in accordance with Sections 30 and 31 of the Act where such a classification is warranted.

Schedule 1 of the National Standard for the Control of Major Hazard Facilities [NOHSC:1014(2002)] and the associated National Code of Practice for the Control of Major Hazard Facilities [NOHSC:2016(1996)], referred to in the legislation as the MHF National Standard and the MHF National Code of Practice respectively, provides the occupier with the threshold quantities of dangerous substances and aggregate formula that must be used by the occupier to work out if the facility is a PMHF.

Where the occupier of the facility determines that the facility is not a PMHF the occupier must then determine whether or not the facility is a possible Large Dangerous Substances Location (LDSL) and notify the Secretary in accordance with Section 48 of the Act.

Schedule 1 of the National Standard for the Storage and Handling of Workplace Dangerous Goods [NOHSC:1015(2001)] and the associated National Code of Practice for the Storage and Handling of Workplace Dangerous Goods [NOHSC;2017(2001)], referred to in the legislation as the National Standard and National Code respectively, provides the occupier with the threshold quantities of dangerous substances that must be used when determining if the facility is a possible LDSL.

1.2.2 Safety Report

In addition to meeting all the other safety obligations specified in the Act the occupier of a MHF, once the facility has been classified by the Secretary as a MHF, must comply with Part 4, Division 3, of the Act.

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

It is important that occupier of a MHF checks the MHF National Standard and the MHF National Code of Practice as well as the National Standard and National Code because these national standards and codes of practice provide detailed information about how risks must be minimised.

The obligations of a MHF occupier include:

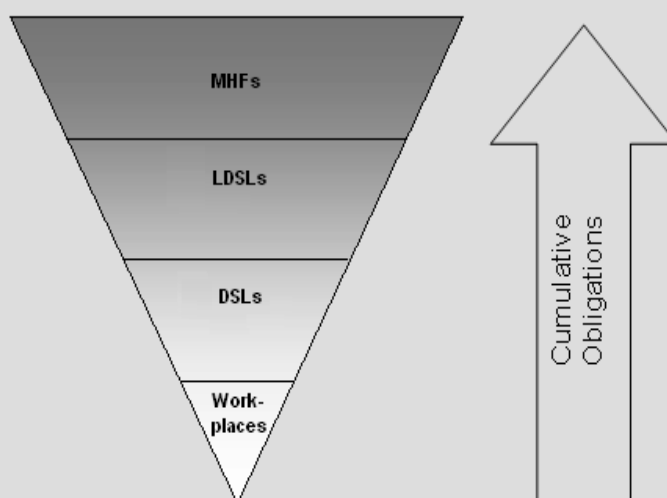
- producing a systematic risk assessment and implementing risk reduction measures for the safe operation of the MHF (refer Section 38 of the Act);
- developing emergency plans and procedures for the MHF in consultation with the emergency services, local government and the community (refer Sections 39 and 40 of the Act);
- educating and training employees to be able to fulfil their roles safely in the operation of the MHF, including ensuring that they have access to information (refer Section 41 of the Act);
- implementing a safety management system for the operation of the MHF (refer Section 42 of the Act);
- consulting and informing neighbours about the MHF's hazards and safety measures (refer Section 43 of the Act); and
- submitting a safety report to the Secretary (refer to Section 44 of the Act).

In addition there are supporting obligations with respect to modifications, dangerous situations and dangerous substances emergencies to supplement the above requirements and how these obligations are being met must be fully explained in the safety report. 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 MHF National Standard and MHF National Code of Practice.

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 LDSs (Large Dangerous Substances Locations), DSLs (Dangerous Substances Locations) and workplaces.



1.3 Timeframes

1.3.1 Existing PMHFs

In accordance with Section 33 of the Act, from the date of full commencement of the Act, the occupier of an operational PMHF has 3 months to notify the Secretary. On receipt of this notification the Secretary will then refer the notification to the MHF Classification and Safety Report Assessment Advisory Panel to determine classification status. Once MHF classification has been confirmed in consultation with the occupier, the timeframes stated in Figure I for meeting the requirements of producing a Safety Report will apply.

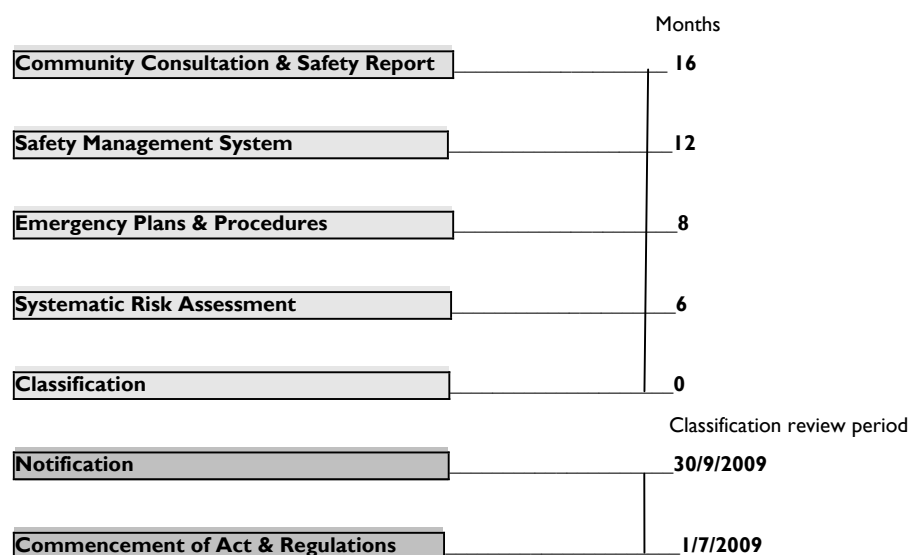


Figure I. Legislative Timeframes

These deadlines must be adhered to as timing is crucial and copies of reports for each activity may be requested as each stage is completed.

1.3.2 New PMHFs

All new sites starting operation as possible MHFs after the commencement of the Act, must notify the Secretary at the timeframes identified in Section 34 and/or Section 35 of the Act. You will note that the timeframe is dependant on commencement of operation of the PMHF with respect to the date the Act commences.

In all cases, occupiers are advised to contact WST for confirmation of timing requirements.

1.3.3 Modified MHFs

In accordance with Section 36 of the Act notification of a modification to an MHF that significantly alters the risks associated with the facility must be received by the Secretary before the modification commences.

2 Guidelines

In order to facilitate compliance with the legislation, a set of guidelines prepared by WST has 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 WST web page at www.wst.tas.gov.au

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 obligations and requirements; and
- further reading.

The set of guidelines comprises:

A - Introduction to the Guidelines

This first guideline 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.

B - Notification and Classification

Where a possible MHF handles or is likely to handle quantities of dangerous substances greater than 10% of the threshold quantity identified in Schedule I of the MHF National Standard this guideline details the notification process and describes the classification procedure undertaken by the Secretary.

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 minimised ‘as far as reasonably practicable’ (AFARP) is introduced. (AFARP is essentially the same as low as reasonably practicable or ALARP).

D - Emergency Plans and Procedures (EP&Ps)

The content of emergency plans and procedures are discussed in this guideline along with consultation processes, review processes, the provision of information and response to a dangerous substances 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 System (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, records, documentation, 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. Queensland’s Department of Employment and Industrial Relations 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 - Dangerous Substances Emergency (DSE) and Dangerous Situations (DS)

This guideline explains what constitutes a DSE and DS 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 Secretary. The level of detail required of the SRA, SMS, EP&Ps, education and training, community consultation and demonstration of adequacy in the safety report are explained.

3 Safety Report Process

The Safety Report is a comprehensive and complex plan which addresses all environment, health, safety and security aspects of the operation of the facility.

In order to comply with Part 4, Division 3, of the Act, the systematic risk assessment (SRA), documented safety management system (SMS), emergency plans and procedures (EP&Ps), employee education and training, SMS implementation and community consultation must be completed and the full safety report submitted to the Secretary within 16 months of the date of classification as a MHF for existing MHFs.

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 MHF occupiers 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. It is strongly recommended that the occupier of the MHF prepares the safety report or be very closely involved with any consultant who they may engage to assist with the preparation of the safety report so that there is full and comprehensive understanding of the resultant safety report because the occupier holds the “duty of care” to fully comply with the safety report not the consultant. Detailed early planning for the preparation of the safety report is essential.

For further information about the processes involved in systematic hazard identification and risk assessment and control; the safety management system; content of safety reports; training, education and induction requirements; emergency planning and consultation requirements, refer to Chapters 6 – 13 of the MHF National Standard as well as the MHF National Code of Practice.

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 prior to classification. Consider the safety report philosophy of integrating environment, health, safety, and security into the management of the facility. Ask:

- How can the safety report be integrated into the business cycle of the facility?
- What is the optimum consultation process to follow?
- What are the aims and objectives of the safety report?
- How can each part of the safety report be developed and documented – should each section of the report be developed in isolation from the others, or should each one flow smoothly in a linear process?

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 this could be 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, reviewing the residual risk, relevant employee training, specific emergency plans and procedures, a supportive safety management system and concise community consultation. Consider how a risk in one part of the facility or one operation might have an impact on operations and risks elsewhere in the facility. Consider also the linkages between the various elements of the facility's security – physical infrastructure, human, environment, cyber security – and the operations themselves.

- **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 procedures 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, has the residual risk been reviewed and are systems in place to ensure reduction measures 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
- integrate health, safety, security and emergency planning to address all statutory obligations
- include employees, contractors and sub-contractors in the process earlier rather than later
- include induction and training
- include performance criteria
- provide details of regular monitoring, audit schedules and review within the 5 year cycle required

4 Review Process

Once the safety report has been submitted and accepted, it must be implemented. An important part of implementation is that you must undertake regular monitoring and review to ensure that the plan is being followed and the performance criteria are being met. The safety report demonstrates how you will comply with the legislation to minimise risk as far as reasonably practicable ('AFARP' or 'ALARP').

The monitoring and review program must take the form of audits and on-site compliance audits to ensure that AFARP / ALARP is being achieved.

The safety report and supporting documentation must be reviewed to ensure that it demonstrates that the measures put in place to ensure that risk from a dangerous substances emergency to people, property and the environment has been minimised as far as reasonably practicable. The review must demonstrate that a thorough hazard identification and risk assessment process has been completed, targeted risk reduction measures have been established and reviewed, 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 must also be provided. We recommend that the auditing program be based on the principle of continuous improvement. The simple question 'can risk be reduced further?' should be the guiding question for monitoring all operations and the hazards and risks associated with them.

The legislation provides that the Secretary may direct the occupier of an MHF to have an independent study or audit carried out into a prescribed matter. This may be necessary, for example, if there is any doubt that objectives of the safety report are being achieved.

The direction must state the reason for requiring the study or audit to be carried out and its objectives. The reviews must be conducted by a third party engaged by the occupier at the occupier's expense. The person or consultant who carries out

the study or audit must be approved by the Secretary and have demonstrated relevant qualifications and experience to carry out the audit or study.

The legislation also requires that, in addition to regular monitoring, safety reports must be reviewed and updated by occupiers at least once every five years. The five-year cycle means that the safety report is a dynamic plan and it should become an integral part of the business planning of the facility.

5 Additional Information

The guidelines, additional information or clarification of any of the issues raised in the guidelines can be obtained by contacting Workplace Standards Tasmania, Department of Justice, at any of the following addresses:

Postal: PO Box 56, ROSNY PARK, TAS 7018
Tel: 1300 366 322 (within Tasmania)
(03) 6233 7657 (outside Tasmania)
Fax: (03) 6233 8338
E-mail: wstinfo@justice.tas.gov.au
Web: www.wst.tas.gov.au

Copies of the *Dangerous Substances (Safe Handling) Act 2005* and *Dangerous Substances (Safe Handling) Regulations 2009* can be obtained from Print Applied Technology P/L at any of the following addresses:

Postal: PO Box 307, HOBART, TAS 7001
Street: 33 Innovation Drive, Technopark
DOWSING POINT, TAS 7010
Tel: (03) 6233 3360
Fax: (03) 6233 5346
Web: www.thelaw.tas.gov.au

Copies of the National Standard for the Control of Major Hazard Facilities [NOHSC:1014(2002)], National Code of Practice for the Control of Major Hazard Facilities [NOHSC:2016(1996)], National Standard for the Storage and Handling of Workplace Dangerous Goods [NOHSC:1015(2001)] and National Code of Practice for the Storage and Handling of Workplace Dangerous Goods [NOHSC:2017(2001)] can be obtained from Safe Work Australia, at any of the following addresses:

Postal: GPO Box 9880, CANBERRA, ACT 2601
Tel: (02) 6121 5317
Fax: (02) 6121 9284
Web: www.safeworkaustralia.gov.au

Copies of Australian Standards AS 3745 : Emergency Control Organisations and Procedures for Buildings, Structures and Workplaces, AS/NZS 3931 : Risk Analysis of Technological Systems – Application Guide, AS/NZS 4360 : Risk Management, AS/NZS 4581 : Management System Integration – Guidance to Business, Government and Community Organisations, AS/NZS 4801 : Occupational Health and Safety Management Systems – Specification with Guidance for Use, HB 76 : Dangerous Goods – Initial Emergency Response Guide and HB 221 : Business Continuity Management can be obtained from SAI GLOBAL at any of the following addresses:

Tel: 131 242
Fax: 1300 654 949
Web: www.saiglobal.com/shop

The Health and Safety Executive (United Kingdom) has an excellent reference library to assist with Emergency Planning for Major Accidents and Preparing Safety reports for its Control of Major Accident Hazards Regulations 1999 (COMAH) and can be accessed by its website: www.hse.gov.uk/comah/

The Hazardous Industries and Chemicals Branch of the Department of Employment and Industrial Relations, Queensland, has an excellent reference library to assist with Major Hazard Facilities in respect to systematic risk assessment, safety management systems, emergency plans and procedures etc and can be accessed by its website: www.deir.qld.gov.au

Likewise WorkSafe Victoria also has an excellent reference library to assist with Major Hazard Facilities matters and can be accessed by its website: www.workcover.vic.gov.au

ISO/PAS 22399: Societal Security – Guideline for Incident Preparedness and Operational Continuity Management published by the Business Continuity Institute is an excellent resource on how to deal with emergency planning and can be accessed from its website: www.thebci.org.au

“Loss Prevention In The Process Industries” by Frank P. Lees, “What Went Wrong? Case Histories of Process Plant Disasters” and “Learning from Accidents” by Trevor Kletz are excellent resource material and can be located on the web.



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