COMMONWEALTH OF AUSTRALIA

NOHSC

National Occupational Health & Safety Commission

MAJOR HAZARD FACILITIES

Annual Situation Report

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CONTEXT OF ANNUAL SITUATION REPORTS

1. At its May 2002 meeting, the Workplace Relations Ministers Council (WRMC) endorsed the National Occupational Health and Safety Strategy 2002 – 2012 (the National Strategy) as a framework for ensuring a sustained and substantial improvement in Australia's occupational health and safety performance.

2. Underpinning the National Strategy are five national priorities aimed at achieving both short and long-term OHS improvements. National Priority 1: *to reduce high incidence and/or severity risks* is expected to contribute immediately to achieving a reduction in work-related injury and fatality.

3. The National Occupational Health and Safety Commission (NOHSC) has declared seven national priority standards that contribute to efforts being made under National Priority 1. Together, the standards are estimated to cover eighty percent of work related injury, death, and disease in Australia. The standards deal specifically with:

- Manual handling (musculo-skeletal injury)
- Plant
- Certification

- Hazardous substances
- Dangerous goods
- Occupational noise
- Major hazard facilities

4. To monitor the effectiveness of national standards, NOHSC developed a *National Standards Continuous Improvement Program* (the CIP). The CIP details a process for the monitoring and regular reporting of the efficacy of national regulatory material. An Annual Situation Report (ASR) is the main report under the CIP and is produced for each standard. Annual Situation Reports are expected to identify issues, innovation, and areas requiring improvement in national standards.

5. Specifically, ASRs:

(a) report the status of adoption of national material in each jurisdiction;

(b) compare key components of national material with standards maintained by major overseas OHS agencies;

(c) document and analyse concerns of NOHSC stakeholders, and report new developments and emerging issues;

(d) report national and jurisdictional performance against agreed indicators; and

(e) give the status of referenced material.

6. This is the third Annual Situation Report on Major Hazard Facilities.

EXECUTIVE SUMMARY

7. The objective of the *National Standard for the Control of Major Hazard Facilities* (1996) (the National Standard) is to prevent major accidents and near misses, and to minimise the effects of any major accidents and near misses, resulting from the activities of major hazard facilities.

8. At the time of the Esso Longford Plant disaster in 1998 the National Standard had not been implemented in any Australian jurisdiction. In May 2001, the Workplace Relations Ministers' Council (WRMC) endorsed five strategies and three related actions to facilitate nationally consistent uptake and implementation of the National Standard in major hazard facility regulation in Australian jurisdictions.

9. This is the third Annual Situation Report (the report) on Major Hazard Facilities. Key findings of the report are:

(a) Consistent regulatory framework and its application

Implementation of MHF regulation

10.All jurisdictions expected to have legislation or regulations in place by mid-2003. This has not been achieved. Only two jurisdictions (Victoria and Queensland) have specific MHF laws in place, although all jurisdictions have dangerous goods and occupational health and safety legislation. Five jurisdictions (the Commonwealth, New South Wales, Western Australia, South Australia and Tasmania) are developing legislation or regulations, and the ACT is developing a new Dangerous Substances Act for introduction in November 2003. This will allow for future development of MHF regulations consistent with the National Standard. NSW is expected to have its law in place in 2003 – 04, and the Northern Territory has its dangerous goods legislation currently under review.

11.Delays in putting consistent MHF laws in place give rise to serious concerns. The levels of protection under the National Standard exist in only 2 jurisdictions. There are consequential effects for the implementation of the WRMC strategies, as they depend on there being a nationally consistent regulatory framework. Most jurisdictions have limited resources for taking this work forward, which,

after the laws are operating, involves relatively complex analysis of the safety of MHFs, among other things.

Consistency of coverage

12.There are overlapping responsibilities in each jurisdiction for the regulation of MHFs. In most jurisdictions, the principal OHS agency has primary administrative responsibility for safety at MHFs. Regardless of the primary agency, various other agencies are involved in relation to the regulation of MHFs and in dealing with catastrophic events. All jurisdictions have arrangements for liaison between the relevant agencies. NSW proposes the involvement of an inter-agency committee, similar to the existing inter-agency group involved in the development of the proposed regime. Other jurisdictions have less formal arrangements. The ACCI sees the multiple and differing agencies involved as a major reason for the slow implementation of the National Standard, the differing approaches taken and insufficient allocation of resources for carrying this work forward.

13.In the case of offshore MHFs, there is a joint authority arrangement between the various Australian governments. A National Offshore Petroleum Safety Authority is to be established (operating from 1 January 2005). The ACTU supports that regulatory model for onshore facilities. Industry supports high levels of consistency across jurisdictions in the regulation of MHFs. Industry wants to review the offshore arrangements once they have been in place for a period that will allow a meaningful assessment of the benefits of a joint authority arrangement. Government representatives have not expressed a view on the underlying policy question of whether the offshore model is relevant to onshore facilities.

Practical guidance and training material

14.Material is being developed to assist industry, employees, and regulatory authorities with the development, assessment, and application of safety reports for MHFs based on experience to date. The aim is to make this available this year. Individual jurisdictions have technical guidance available for operators preparing safety reports/cases.

15.Core competencies required for assessors of MHF safety cases have been developed. They will assist agencies in establishing teams responsible for the regulation of MHFs and foster consistency and transportability of skills. In addition, information and material on training will be shared on an ongoing basis. Attention will be given to the needs of MHF operators in developing and administering safety regimes. More work needs to be undertaken on the core competencies required of industry in preparing safety cases/reports.

Performance Indicators

16.Performance indicators are being developed. Criteria have been developed and appropriate indicators are being settled.

Security issues

17.At its December 2002 meeting, the Council of Australian Governments (COAG) endorsed the development of guidelines for the protection of critical infrastructure, and noted reported deficiencies in the protection of some hazardous materials. COAG agreed to "a national review of the regulation, reporting and security around the storage, sale and handling of hazardous materials." To assist the review, the NOHSC Office informed the Director of the Protective Security Coordination Centre (Commonwealth Attorney-General's Department) about the nature and location of MHFs and their regulation.

18.Further consideration may be required about the requirements for the disclosure of information to the public about MHF operations and the materials held on such sites. The National Standard balances the community's right to know with security considerations, but this will remain under review.

(b) Overseas comparisons

19.The National Standard is broadly consistent with best practice internationally (as represented by COMAH and Seveso II) and it presently represents the most appropriate model on which to continue to build. The European Union is presently developing a Seveso III Directive. Its implications for Australia will need to be considered.

20.However, in some important respects the National Standard falls short of COMAH/Seveso II and could usefully be revised. In doing so, the gap between the National Standard and COMAH, and the issues of effective worker participation, audits and government inspection and enforcement, will be critically important. These issues have been considered by some jurisdictions when drafting legislation.

21.Such revision however, should be a lower priority than ensuring that the National Standard is taken up and effectively adopted and implemented (as law) nation-wide.

(c) Stakeholder concerns

22.Stakeholder concerns are centred on the lack of progress being made to implement major hazard facility regulations across all jurisdictions, the disparate ways jurisdictions are giving, or planning to give effect to the National Standard, and the dating of the standard with respect to developments in the COMAH Regulations and Seveso II/III Directives. Two jurisdictions have suggested that work begin to review the MHF Standard before the scheduled review of 2005-06, required under COAG guidelines.

(d) Referenced material

23.No Australian Standards are directly referenced in the National Standard or code of practice. However, there are 41 other references that will require assessment as to their continued relevance in relation to the standard and code. It is expected that this assessment will occur in conjunction with the next review of the material (proposed for 2005-06).

(e) Efficacy

24.While the empirical evidence is not conclusive, or entirely in one direction, on balance it suggests that a goal setting and management system-based regime (with a safety case/safety report as its central pillar), such as that required by the National Standard, is the most appropriate means of preventing accidents at major hazards facilities.

(f) Actions to facilitate improvement

25.The National Standard was intended to achieve national uniformity in the regulation of major hazard sites. It has yet to achieve this. Where the National Standard is being adopted, or has been adopted, the majority of the provisions have been implemented. In the majority of jurisdictions, legislation to implement the National Standard has not yet been introduced and the requirements of the National Standard not dealt with adequately by existing legislation.

26.Further work is aimed at improving the rate and consistency of adoption of the National Standard and the major hazard facility regulatory framework.

1 BACKGROUND

27.This is the third Annual Situation Report for Major Hazard Facilities. Subsequent reports will expand on it and report on performance against the actions for improvement set out in Section 7 below.

28.NOHSC declared the first edition of the *National Standard for the Control of Major Hazard Facilities* (the National Standard) in 1996. In 2002, a review of Schedule 1 of the National Standard resulted in the declaration of the second edition (October 2002) that contained a number of technical changes to Schedule 1 required to maintain consistency with dangerous goods regulations and the *Australian Explosives Code* (2000).

29.The objective of the National Standard is to prevent major accidents and near misses, and to minimise the effects of any major accidents and near misses, resulting from the activities of major hazard facilities. It attempts to achieve this by requiring operators of major hazard facilities to:

(a) identify and assess all hazards and implement control measures to reduce the likelihood and effects of a major accident;

(b) provide information to the relevant public authority and the community, including other closely located facilities, regarding the nature of hazards at a major hazard facility and emergency procedures in the event of a major accident;

(c) report and investigate major accidents and near misses, and take appropriate corrective action; and

(d) record and discuss the lessons learnt and the analysis of major accidents and near misses with employees and employee representatives.

30.The importance of controlling the hazards addressed by the National Standard lays not so much in the potential for frequent incidents, but more in the potential for extremely serious consequences. An accident at a major hazard facility could have catastrophic consequences, not only for workers at the facility, but also for people in the general vicinity, and for the environment. Accidents associated with a major hazard facility can be described broadly as "low probability-high

cost." The high cost of the 1998 accident at ESSO's Longford Plant, in terms of lives lost, serious injuries and (estimated) billion dollar losses, illustrates how important control of these facilities is.

31.The cause of the explosion and fire at ESSO's Longford Plant (25 September 1998) was the subject of the Longford Royal Commission. In handing down its findings, the Longford Report[1] identified the safety case/safety report as the single most important element of an effective approach to the prevention of accidents at major hazard facilities. It also found that, had such a regime been required by law, and had Esso complied with it, the Longford accident could have been avoided.

32.The Longford Commission's recommendations for an effective regime for preventing accidents at major hazard facilities overlap substantially with the provisions of the National Standard, and had the National Standard been implemented as legislation in Victoria and been enforced, the Commission's view is that, by implication, the Longford accident could have been avoided.

33.In May 2001, the Workplace Relations Ministers' Council (WRMC) endorsed five strategies and three related actions to facilitate nationally consistent uptake and implementation of the National Standard in major hazard facility regulation in Australian jurisdictions. The National Occupational Health and Safety Commission (NOHSC) was assigned responsibility for progressing this work.

34.The Workplace Relations Ministers' Council strategies are:

(a) establish and implement a consistent regulatory framework based on the National Standard in all jurisdictions;

(b) share expertise in the administration of the safety case regime and the technical assessment of safety cases between the jurisdictions;

(c) develop practical guidance and training material for regulators and industry parties;

[1] Longford Report, Hon. Sir Daryl Dawson (Chairman) and Mr Brian Brooks (Commissioner), *The Esso Longford Gas Plant Accident Report of the Longford Royal Commission*, Government Printer for the State of Victoria, Melbourne, 1999.

(d) assess the potential for mutual recognition of safety case assessments between jurisdictions; and,

(e) develop performance indicators to compare safety outcomes of major hazard sites across Australia.

35.In addition, the Workplace Relations Ministers' Council endorsed actions in relation to the following issues raised by industry parties:

(a) consistency in who regulates major hazard facilities;

(b) development of a time frame and process for monitoring the development and implementation of regulations for major hazard facilities in each jurisdiction; and

(c) ability of industry to develop risk based cases for exemption under major hazard facilities regulations.

36.In September 2001, the Major Hazard Facilities Implementation Reference Group (MHFIRG) was established to implement the WRMC strategies. The MHFIRG reports annually, through the Prevention Committee and the National Occupational Health and Safety Commission, to Ministers on progress.

2 IMPLEMENTING MAJOR HAZARD FACILITY REGULATION: A STATUS REPORT

37.Historically, most Australian major hazard sites have been regulated under dangerous goods, and occupational health and safety legislation. In 2001, each State, Territory and the Commonwealth agreed to the adoption of the National Standard as the basis for regulating on-shore major hazard facilities. Offshore facilities (mainly those associated with petroleum and gas) are regulated under other arrangements. Since then, implementation of regulation based on the National Standard has proceeded at differing rates. As of April 2003, Victoria and Queensland had legislation in place, with the remaining jurisdictions at varying stages of reviewing the effectiveness of existing arrangements and/or developing plans for the implementation of new regulations.

38.Adoption of the National Standard into legislation, and the extent to which the National Standard is adopted by the various Australian jurisdictions, are vital implementation issues because, in themselves, neither the National Standard, nor its accompanying code of practice[2], have legislative force.

Status of implementation

Commonwealth On-shore (Comcare)

39.Comcare is the relevant authority for regulating on-shore Commonwealth major hazard facilities. Drafting instructions for major hazard facility regulations are presently being developed. The regulations will be based on the National Standard and code of practice. Pending the development of regulations, the Safety, Rehabilitation and Compensation Commission issued guidance material titled: *Safety, Rehabilitation and Compensation Commission Guidance Material on the Control of Major Hazard Facilities* (May 2000). Expected implementation of regulation is June – September 2004.

Australian Capital Territory (ACT WorkCover)

40. The ACT is developing a new Dangerous Substances Act for introduction in November 2003. This will allow for the future development of MHF regulations

[2] *The National Code of Practice for the Control of Major Hazard Facilities* [NOHSC:2016(1996)], September 1996.

consistent with the National Standard. However, as there are currently no major hazard facilities within the ACT, other areas of regulation are presently being given priority.

New South Wales (NSW Department of Infrastructure, Planning and Natural Resources (DIPNR))

41.NSW is adopting a whole of government approach to the regulation of major hazard facilities and is looking at people, property, and environment issues. An inter-agency committee examining major hazard facilities issues is well established. A legislative proposal has been endorsed by the Minister for Infrastructure and Planning and the Minister for Industrial Relations and this proposal has been submitted to government. Legislation for the control of major hazard facilities is expected in 2003-04.

Northern Territory (Work Health Authority)

42.The Northern Territory is currently reviewing its dangerous goods legislation.

Queensland (Department of Emergency Services)

43.The administrative arrangements of the *Dangerous Goods Safety Management (DGSM) Act 2001* commenced on 7th November 2001 with full commencement (including major hazard facility obligations, which incorporate the body of the National Standard) on 7th May 2002. Twenty-one facilities have been classified as at 5 December 2002, with safety reports required by March 2004.

South Australia (Dept. for Administrative and Information Services - Workplace Services)

44.Workplace Services is finalising a Report to the Minister for Industrial Relations on a proposal for the introduction of legislation for the control of major hazard facilities. The Government of SA has provided a budget to Workplace Services for the establishment of legislation and its administration. Estimated legislative outcome is by mid 2004. In addition, Workplace Services have reviewed the *Dangerous Substances and Explosives Act* with the aim of

combining that legislation and the National Standard for Dangerous Goods into one piece of legislation. Major Hazard Facilities may form part of that proposal.

Tasmania (Workplace Standards Tasmania – Dept. Infrastructure, Energy and Resources)

45.Major hazard facilities are identified through the storage schedules, and managed and operated under the requirements of the *Dangerous Goods Act 1998* and the *Workplace Health and Safety Act 1995*. Currently, Tasmania is preparing a submission for Cabinet seeking approval for the establishment of a new legislative package that will incorporate regulations for major hazard facilities. Because of a shortage of drafting resources in the Office of the Parliamentary Counsel, it is envisaged that the new legislation will be drafted in 2004, subject to receiving Cabinet approval in October 2003, and will be in place by late 2004/early 2005.

Victoria (WorkSafe Victoria)

46.The Victorian *Occupational Health and Safety (Major Hazard Facilities) Regulations* commenced on 1 July 2000 and give effect to the National Standard and the recommendations of the Longford Royal Commission. The regulations include protection of people and property from acute events. The regulations require a safety case to be submitted within 24 months of registration as a major hazard facility. Victoria has assessed 39 safety cases and issued 37 licenses. These facilities are now under a post licensing oversight regime that includes inspection requirements. Five new major hazard facilities are currently preparing safety cases.

Western Australia (Department of Industry and Resources)

47.The National Standard was implemented administratively in September 1997 under the provisions of the *Explosives and Dangerous Goods Act 1961*. Western Australia is developing specific major hazard facility regulations that are expected to be proclaimed by April 2004.

Commonwealth Offshore

Department of Industry Tourism and Resources (DITR) and States/NT

48.Offshore petroleum in Commonwealth waters is regulated by a Joint Authority arrangement in which the States/NT carry out all day-to-day regulatory activities with the Commonwealth Minister's view prevailing in the event of disagreement. The States/NT (in practice mainly WA) regulate in State and Coastal waters. DITR is responsible for Commonwealth regulations established to manage offshore petroleum. Following a review of existing arrangements the Commonwealth and States/NT have agreed to establish a National Offshore Petroleum Safety Authority (NOPSA), which will commence operations on 1 January 2005. Other aspects of offshore petroleum regulation such as titles, resource management, and environment will remain unchanged.

49.**Attachment 1** provides an indication of the extent to which different jurisdictions have implemented, or intend to implement the requirements of the National Standard.

3 COMPARISON WITH OVERSEAS EQUIVALENTS

50.The development of regulation of major hazard sites both in Australia and internationally has been characterised by a move away from prescriptive regimes towards a more self-regulatory, performance-based approach, and more recently, in the direction of a model under which enterprises are rewarded for adopting effective OHS safety management systems.

51.Since the introduction in 1996 of European Council Directive 96/82/EC on the *Control of Major Accident Hazards Involving Dangerous Substances* (the Seveso II Directive) this shift of emphasis is apparent in the taking up of "safety case" or "safety report" regimes and the establishment of a system of "goal-setting" regulations. Goal setting regulations state objectives that are to be met, rather than prescribing that detailed measures are to be taken. Safety case regimes require an operator of a major hazard facility to examine and document, in detail, all potential hazards existing at an installation and the safety management systems put in place to deal with them. These regimes result in the operator taking a higher level of ownership in the management of their hazards.

The National Standard for the Control of Major Hazard Facilities

52.In 1991, NOHSC identified the need in Australia for a National Standard for major hazard facilities that would provide the controls required to remove the underlying and immediate causes of major accidents, as well as limit their consequences. NOHSC also appointed an expert working group to make recommendations for the development of such a standard.

53.In its final form, the National Standard was to prevent major accidents and near misses, and to minimise the effects of any major accidents and near misses. To ensure consistency with international and national approaches and requirements to control major hazard facilities, the expert-working group drew on work by the EC, the UK's HSE, the ILO and draft legislation in NSW and Victorian Governments. In 1996 the *National Standard for the Control of Major Hazard Facilities* (1996) and the *National Code of Practice for the Control of Major Hazard Facilities* (1996) were introduced in Australia. The code of practice is a document prepared for the purpose of advising employers and workers of

acceptable ways of achieving the National Standard. The standard and code were prepared in the expectation that they would be given legislative force in the States and Territories.

54.The National Standard contains a list of substances that are to be used to identify a major hazard facility, with a threshold quantity listed for each substance. A facility is a major hazard facility if more than the threshold amount of substances is present. These threshold values are derived from the UK and EC values. The relevant authority may also classify a workplace as a major hazard facility where it considers there is a risk of a major accident occurring from radioactive, biological or other substances not included in Schedule 1 of the National Standard.

55.The National Standard is designed to be implemented by a single public authority in each state with administrative responsibility. While a number of public authorities will be involved, there should be only one single lead authority responsible for co-ordination and administration of the Standard.

56.Where a workplace has been identified as a major hazard facility, the operator is required to identify the hazards, assess the risks and implement a safety management system at the facility, prepare on-site and off-site emergency plans, and consult with emergency services. Other requirements include: testing, evaluating, and updating of plans; report major accidents and near misses to the relevant public authority; take appropriate corrective action, and record and discuss the lessons learnt and the analysis of major accidents and near misses with employees and employee representatives; provide relevant training and education to all people at the major hazard facility, including visitors and contractors; consult with employees and employee representatives; and ensure the security of the facility.

57.The Standard requires a safety report to be produced to fulfil the requirements of any public authority involved. This report is expected to demonstrate the measures taken to ensure the safe operation of the facility. A safety report is required for all new and existing major hazard facilities and should be prepared by operators in consultation with employees and employee representatives, public authorities, relevant community groups and other closely located major hazard facilities.

58.Throughout the administration of the National Standard, regular consultation and dialogue between the operator, the administering authority and other interested parties, including employees and employee representatives, is expected. The operator must notify the relevant authority of closure, or any modifications to a facility, which will significantly alter the risk associated with the facility. The operator is also given a responsibility to the community to provide: information about the nature of hazards at the facility and safety procedures to follow in the event of a major accident, and to provide warning when a major accident occurs; and relevant details of major site changes, including changes to emergency procedures, before those changes are made.

59.Planning authorities are acknowledged to have particular responsibility in the implementation of the Standard: to provide controls to ensure adequate separation on a long-term basis between a facility and surrounding land uses; to consult with relevant community groups; and for planning of new major hazard facilities, new developments around existing establishments and modifications to existing major hazard facilities.

ILO Convention

60.The International Labour Organisation (ILO) in 1993 adopted the *Convention on the Prevention of Major Industrial Accidents* (Convention No 174). This provides a framework for the establishment of a national major hazard system for the prevention of industrial accidents, and to mitigate the consequences of such an accident. It requires the formulation, implementation, and periodic review of national policy concerning the protection of employees, the community, and the environment, against risk from major hazards. Major provisions include: the preparation of a safety report containing technical, management and operational information covering the hazards and risks of a major hazard facility and their control; reporting of all major accidents; establishment of off-site emergency plans; and siting policy for the separation of a proposed major hazard facility from residential areas, public facilities and existing major hazard facilities.

European Union (EU)

61.The Seveso II Directive was adopted by EU Member States on 14 January 1997 and fully replaced Seveso I (Directive 82/501/EEC). Its provisions became mandatory from February 1999.

62.The aim of the Seveso II Directive is two-fold: (1) the *prevention* of major accidents involving dangerous substances; and (2) the *limitation of the consequences* of such accidents for people, property and the environment. Important changes were made and new concepts introduced into Seveso II, which included: a revision and extension of the scope of the Directive; the introduction of new requirements relating to safety management systems; emergency planning and land-use planning; and the reinforcement of the provisions on inspections to be carried out by Member States.

63.Companies are covered by this legislation according to the quantity of dangerous substances that they hold. The list of dangerous substances regulated has been reduced from 180 to around 50 substances in favour of an enlarged and more systematic list containing generic categories such as 'toxic', 'explosive', or 'flammable'. A two-tier (upper and lower) approach to classification (based on the quantity of dangerous substances held by an establishment) is created from the threshold levels established for the substances, and categories of substances and preparations. Larger quantities means more controls. It should be noted that important areas excluded include nuclear safety, the transport of dangerous substances (including pipelines) and intermediate temporary storage.

64.The EU also established a Major Accident Hazards Bureau (MAHB) to facilitate sharing of information on major hazard facilities within Member States.

65.Work is presently underway in the European Union on the next iteration of the Directive (Seveso III). Proposed changes include bringing the storage of mine tailings, and storage of fireworks in residential areas, under the provisions of the Directive. Seveso III may also have extended application with regard to facilities storing carcinogenic substances, and the qualifying quantities of aqua-toxic substances will be reviewed. Measures in regard to aqua-toxic substances are largely seen as an attempt to reduce the risk to the European river systems.

66.Other proposed changes are linked to security issues. Under Seveso II inventories of dangerous substances at top-tier installations must be made public. Under new security arrangements it will be possible for operators of major hazard facilities to withhold disclosing this information under certain circumstances, including for reasons of commercial confidentiality and national security.

The United Kingdom (UK)

67.In the UK, the *Control of Major Accident Hazards Regulations* 1999 (COMAH) brought the UK into compliance with the requirements of Seveso II. The UK regulations outline two tiers of major hazard facilities based on the quantity of dangerous substances held. Operators of all establishments subject to the regulations are required to notify the regulator (the "Competent Authority") of their activities before operations begin. The Competent Authority comprises the Health and Safety Executive (HSE), the Environment Agency for England and Wales, and the Scottish Environment Protection Agency (SEPA) working together. All operators are required to take all measures necessary to prevent major accidents and limit their consequences to people and the environment.

68.Lower-tier operators are required to prepare a document setting out their policy for preventing major accidents (a major accident prevention policy or MAPP). The MAPP should include references to the safety management system that will be used to put the policy into action, and related issues such as organisation and personnel, identification and evaluation of major hazards, operational control, planning for emergencies, and monitoring, audit and review.

69.Top-tier operators must comply with these requirements and additionally prepare a safety report. The safety report must demonstrate to the Competent Authority that all measures necessary for the prevention and mitigation of major accidents have been taken. The safety report must include:

- a policy on how to prevent and mitigate major accidents;
- a management system for implementing that policy;

- measures (such as safe plant and safe operating procedures) to prevent and mitigate major accidents;
- information on the safety precautions built into plant and equipment when it was designed and constructed;
- details of measures (such as fire-fighting, relief systems and filters) to limit the consequences of any accident that might occur; and
- information about the emergency plan for the site, which is also used by the local authority in drawing up an off-site emergency plan.

70.The Competent Authority makes the safety report available to the public, subject to safeguards for national security, commercial and personal confidentiality. The safety report needs to be revised when the plant is modified, or new information becomes available. It must be reviewed every five years even if there are no changes.

71.Top-tier operators must also prepare an emergency plan to deal with the on-site consequences of a major accident, supply information to local authorities for off-site emergency planning purposes, and provide certain information to the public about their activities, including details of dangerous substances, the possible consequences of a major accident, and what to do in the event of an accident.

72.The COMAH Regulations also place duties on the Competent Authority to communicate the conclusions of safety report assessments to operators; to prohibit activities if there are serious deficiencies in measures for prevention and mitigation of major accidents; and have inspection systems and programmes, carry out inspections, and investigate accidents.

73.There are also procedures for reporting major incidents and for siting and land use.

United States (US)

74.As in Europe, the United States (US) has been moving away from a prescriptive approach and towards performance- and process-based standards. In particular, regulation for chemical accident prevention has moved substantially

in this direction. Chemical plant explosions, refinery explosions, and toxic gas releases are serious threats in the case of chemical related major hazard facilities. The US is moving towards "process safety" whereby regulations do not specify the particulars of operation but rather demand that each chemical plant have written operating procedures and precise operating parameters, and crucially, assess its operations in detail.

75.Such an approach is the Occupational Safety and Health Administration *Process Safety Management Standard* (PSM) and the Environmental Protection Agency *Clean Air Act* (1990) amendments (Risk Management Plans). These build on the overarching process safety standards developed by industry groups, and require employers to take a systematic approach to addressing safety and health hazards. This includes obligations to identify and prioritise all hazards in terms of seriousness, and to track progress in controlling them. Other elements include employee participation, and an emphasis on flexible performance-based obligations under which firms can develop risk management plans tailored to site specific conditions. Such plans must outline how companies plan to respond to an accident, how they have prepared for such emergencies, their accident histories, and how great an impact a bad plant accident would have on the surrounding areas. Among other matters, the plan must detail methods and results of the hazard assessment, accident prevention, and emergency response programs.

76.The US has also established a program to encourage community planning and preparation relative to serious hazardous material releases.

77.Since September 2001 the threat of industrial sabotage has been a major driver of regulatory change in the area of major hazard industries. Additional obligations have been placed on facility operators, such as developing emergency response plans that respond to terrorist attacks, and conducting risk assessments of the vulnerability of facilities that store major chemical hazards. New legislative measures to ensure that there is consistency in the emergency plans adopted by facility operators are currently under review by the US Congress. Significant new legislation includes The *Chemical Security Act* and the *Homeland Security Act*. Much attention is focused on unauthorised release of chemicals rather than accidental releases.

IMPLICATIONS FOR AUSTRALIA

78.Since the National Standard is broadly consistent with best practice internationally (as represented by the United Kingdom's COMAH Regulations, and the European Union's Seveso II Directive) it presently represents the most appropriate model on which to continue to build regulations for the control of major hazard facilities in Australia.

79.However, in some areas it differs from COMAH/Seveso II and could usefully be revised in light of security concerns, lessons drawn from the Longford Report Recommendations, and the proposed new requirements of Seveso III.

80.In order to keep abreast with international best practice there are a number of other areas where examination of the adequacy of the National Standard might be merited, including:

- greater inclusion of environment factors;
- effective worker participation;
- audits and government inspection and enforcement;
- scope of facilities covered (should it include pipelines, to what extent should it cover on-site versus off-site risks, transport, substances, and should it have threshold criteria for the application of more stringent provisions e.g. a lower and higher tier?);
- the role of licensing;
- the relationship of major hazard facility regulation to dangerous goods regulation;
- competence requirements/approved methods for inspectors and assessors;
- risk acceptance criteria;
- extent of information available to the public (extent of information provision to potentially affected parties, and extent and form of commercial in confidence and national security exemptions);
- explosives;
- cumulative risk studies;

- greater integration with land use planning; and
- emergency planning.

81.Such revision however, should be a lower priority than ensuring that the National Standard is taken up and effectively adopted and implemented as law nationwide. The National Occupational Health and Safety Commission supported this view at its meeting on 16 October 2002.

82.Notwithstanding the expected implementation date of major hazard facility regulation in all Australian jurisdictions, the Council of Australian Governments (COAG) guidelines[3] require national standards to be reviewed at least every ten years. Under these arrangements, the National Standard will be reviewed in 2005-06, and such a review will take into account the issues listed above. Two jurisdictions have suggested that work begin to review the MHF Standard before the scheduled review of 2005-06.

[3] Council of Australian Governments, *Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard-Setting Bodies*, November 1997.

4 STAKEHOLDER CONCERNS, ISSUES, OTHER DEVELOPMENTS AND IMPLICATIONS

83.In May 2001, Workplace Relations Ministers' Council (WRMC) endorsed five strategies (and three related actions) to achieve national consistency in major hazard facility regulation, and assigned responsibility for progressing this work to the National Occupational Health and Safety Commission (NOHSC). The NOHSC established a Major Hazard Facilities Implementation Reference Group (MHFIRG), consisting of representatives of the lead agencies responsible for the establishment of major hazard facility regulations in Australian jurisdictions, representatives of the Australian Chamber of Commerce and Industry (ACCI) and the Plastics and Chemicals Industry Association (PACIA), and a representative of the Australian Council of Trade Unions (ACTU).

84.Through 2002-03, MHFIRG members have continued work consistent with the WRMC strategies for consistent regulation of major hazard facilities in Australia.

Strategy 1 - Facilitating a consistent Regulatory Framework

Implementing Regulation

85.Progress has been made towards consistent regulation of major hazard facilities. All jurisdictions have agreed to the adoption of the National Standard as the basis for regulation and expected to have legislation or regulations in place by mid-2003. This, however, has not been achieved:

(a) only two jurisdictions (Victoria and Queensland) have specific major hazard facility laws in place, although all jurisdictions have dangerous goods and occupational health and safety legislation;

(b) five jurisdictions (the Commonwealth, New South Wales, Western Australia, South Australia and Tasmania) are developing legislation or regulations, and the ACT is developing a new Dangerous Substances Act for introduction in November 2003. This will allow for future development of MHF regulations consistent with the National Standard;

(c) NSW is expected to have its law in place in 2003-04; and the Northern Territory has its dangerous goods legislation currently under review.

86.Delays in putting consistent major hazard facility laws in place give rise to serious concerns. The levels of protection under the National Standard exist in only 2 jurisdictions. There are consequential effects for the implementation of the WRMC strategies, as they depend on there being a nationally consistent regulatory framework. Most jurisdictions have limited resources for taking this work forward, which, after the laws are operating, involves relatively complex analysis of the safety of major hazard facilities, among other things.

87.The ACTU has expressed concern over the perceived lack of urgency given to this task by governments, and both the ACTU and the ACCI have concerns with the slow rate of progress being made to implement laws to control major hazard facilities to the level required by the National Standard.

Consistency of coverage

88.There are overlapping responsibilities in each jurisdiction for the regulation of major hazard facilities. In most jurisdictions, the principal OHS agency has primary administrative responsibility for safety at major hazard facilities. Regardless of the primary agency, various other agencies are involved in relation to regulation and in dealing with catastrophic events. All jurisdictions have arrangements for liaison between the relevant agencies. NSW proposes the involvement of an inter-agency committee, similar to the existing inter-agency group involved in the development of the proposed regime. Other jurisdictions have less formal arrangements. The ACCI sees the multiple and differing agencies involved as a major reason for the slow implementation of the National Standard and insufficient allocation of resources for carrying this work forward.

89.In the case of offshore major hazard facilities, there is a joint authority arrangement between the various Australian governments. A National Offshore Petroleum Safety Authority is to be established (operating from 1 January 2005).

90.The ACTU supports the establishment of a national regulatory agency for onshore facilities similar to that being created for the regulation of offshore oil and gas facilities. The interdependence of a number of offshore and on-shore facilities – some of which are connected by pipelines – would make this a logical

step. It is estimated that there are approximately 200 on-shore major hazard facilities in Australia, which may be a manageable number for a well-resourced national body.

91.Industry supports high levels of consistency across jurisdictions in the regulation of MHFs. Industry wants to review the offshore arrangements once they have been in place for a period that will allow a meaningful assessment of the benefits of a joint authority arrangement. Government representatives have not expressed a view on the underlying policy question of whether the offshore model is relevant to onshore facilities.

Review of Schedule 1

92.Schedule 1 of the National Standard is pivotal to the classification of establishments as major hazard facilities. The 2002 Annual Situation Report for Major Hazard Facilities reported on early work undertaken to review Schedule 1 of the National Standard. A review of Schedule 1 was required to ensure consistency with international directions in regulating major hazard facilities. The review was completed in October 2002, and a new edition of the National Standard was declared.

93.The review attracted substantial public comment identifying a range of issues with elements of the National Standard. The MHFIRG reviewed the public comment submissions and concluded that changes to the National Standard, other than a number of minor technical amendments to Schedule 1, could not be considered in isolation from a full review of the standard.

94.It was agreed by NOHSC (October 2002) that issues identified by stakeholders during the public comment consideration of Schedule 1 would be considered in a full review of the National Standard. The full review is expected to be undertaken once all jurisdictions have implemented major hazard facilities regulation, or in 2005-06 under Council of Australian Governments guidelines[4]. Two jurisdictions have suggested that work begin to review the MHF Standard before that required under COAG guidelines.

[4] Council of Australian Governments, *Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard-Setting Bodies*, November 1997.

95.The following table sets out the amendments to Schedule 1 of the National Standard that were implemented in October 2002.

Area of Standard	Amendment.
Schedule 1, Table 1	Diphenylmethane 4,4 diisocyanate (MDI) removed from Table 1 to maintain consistency with dangerous goods regulations.
Schedule 1, Table 1	Titanium tetrachloride added to Table 1 (threshold quantity 500 tonnes) to maintain consistency with dangerous goods regulations.
Schedule 1, Table 2 Note d	Table 2 Note d revised to maintain consistency with the *Australian Explosives Code,* 2nd edition, (March 2000).

96.Following the updating in 2002, an expert panel has been established to develop a protocol for future reviews of the Schedule.

Strategy 2 - Sharing of Expertise

97.The type of assessment and inspection process for major hazard facilities requires highly skilled personnel who have specialist knowledge of the operation of major hazard facilities, of the risks associated with such facilities, and of OHS management and the safety case requirements. To overcome any shortage of qualified personnel the jurisdictions have agreed to share resources and lessons as needed. To date, this has occurred across three jurisdictions.

Strategy 3 - Practical Guidance and Training Material

98.Material is being developed to assist industry, employees, and regulatory authorities with the development, assessment, and application of safety reports for major hazard facilities based on experience to date. The aim is to make this available this year. A number of jurisdictions have released technical guidance for industry in relation to safety case requirements.

99.Core competencies required for assessors of facility safety cases have been developed. They will assist agencies in establishing teams responsible for the

regulation of facilities and foster consistency and transportability of skills. In addition, information and material on training will be shared on an ongoing basis. It is recognised that the relatively small number of personnel required is insufficient to warrant the establishment of formal programs. Attention will also be given to the needs of facility operators in developing and administering safety regimes, however, limited work has been undertaken by industry to develop competencies for those preparing safety cases.

Strategy 4 - Mutual Recognition of Safety Case Assessments

100. The safety case for a major hazard facility is unique to that facility, its location and particular circumstances. It is therefore not possible to mutually recognise safety cases from different facilities, even where there is considerable overlap in the type of facility and processes employed. The MHFIRG has acknowledged that it is not possible to implement this strategy. Accordingly, this strategy will not be reported against in the future.

Strategy 5 - Performance Indicators

101. Work is progressing to develop an effective set of performance indicators. Criteria for appropriate indicators have been developed, and consideration is now being given to which indicators best provide a measure of the risk management performance of major hazard facilities.

Related Action 1 - Consistency in who regulates MHFs

102. Within each jurisdiction the lead agency with responsibility for major hazard facilities remains split between OHS agencies (6 jurisdictions) and other agencies with responsibilities for emergency services, planning, and industry and resources (3 jurisdictions). Any change in such arrangements is presently a matter for individual jurisdictions. The lead regulatory authority for each jurisdiction is as follows:

Jurisdiction	Lead regulatory authority
ACT	ACT WorkCover Authority
Commonwealth	Comcare
New South Wales	NSW Department of Infrastructure, Planning and Natural Resources
Northern Territory	NT Work Health Authority
Queensland	Qld Department of Emergency Services
South Australia	SA Department for Administrative and Information Services, Workplace Services
Tasmania	Department of Infrastructure, Energy and Resources, Workplace Standards Tasmania
Victoria	WorkSafe Victoria
Western Australia	WA Department of Industry and Resources

Related Action 2 – Monitoring Implementation in Each Jurisdiction

103. The MHFIRG regularly reports to NOHSC, and provides an annual report through NOHSC to the WRMC, on progress being made to implement a regulatory framework for the control of major hazard facilities. This is also being addressed through work under Strategy 5 – Performance Indicators.

Related Action 3 - Risk Based Cases for Exemption

104. The Queensland application of the National Standard provides for the risk-based exemption of a major hazard facility where the facility can demonstrate that its operations pose no significant off-site risk.

105. Further consideration of this issue is proposed in the light of Queensland's experience with its regulations and in conjunction with the proposed review of the National Standard.

Other Issues

Developments with Offshore Major Hazard Facilities

106. Offshore petroleum in Commonwealth waters is regulated by a Joint Authority arrangement in which the States and the Northern Territory carry out all day-to-day regulatory activities, with the Commonwealth Minister's view prevailing in the event of disagreement. The States (in practice mainly WA) and the Northern Territory regulate in State and Coastal waters. The Department of Industry Tourism and Resources (DITR) is responsible for Commonwealth regulations established to manage offshore petroleum.

107. Following a review of existing arrangements, the Commonwealth and States/NT have agreed to establish a National Offshore Petroleum Safety Authority (NOPSA), which will commence operations on 1 January 2005. Other aspects of offshore petroleum regulation such as titles, resource management, and environment will remain unchanged.

Security

108. Security has emerged as an additional issue from the current international environment. Given the nature of major hazard facilities there is concern that they may be potential terrorist targets.

109. At its December 2002 meeting, the Council of Australian Governments (COAG) endorsed the development of guidelines for the protection of critical infrastructure, and noted reported deficiencies in the protection of some hazardous materials. COAG agreed to "a national review of the regulation, reporting and security around the storage, sale and handling of hazardous materials." To assist the review, the NOHSC Office informed the Director of the Protective Security Coordination Centre (Commonwealth Attorney-General's Department) about the nature and location of major hazard facilities and their regulation.

110. Further consideration may be required about the requirements for the disclosure of information to the public about major hazard facility operations and the materials held on such sites. The National Standard balances the

community's right to know with security considerations, but this will remain under review. Guidance provided through the COAG review will be urgently considered.

Implications

111. At its meeting on 13 March 2003 the MHFIRG noted that the focus of activity has principally been on the implementation of legislation in individual jurisdictions, rather than a coordinated national approach.

112. Jurisdictional members agreed that the priority for jurisdictions is to put in place legislation for the control of major hazard facilities. Only when this task is complete can work proceed effectively to facilitate the development of other elements of the regulatory framework, such as the coordination of agencies involved in regulation, timeframe issues, a risk-based process for industry, regulator training, sharing of expertise, and performance monitoring.

5 STATUS OF REFERENCED MATERIAL

113. The National Standard references the *National Code of Practice for the Control of Major Hazard Facilities [NOHSC:2016(1996)]*, (1996), (the MHF Code of Practice), and the *Australian Code for the Transport of Dangerous Goods by Road and Rail*, 5th Edition, (1992) (the ADG Code).

114. It is proposed that the MHF Code of Practice will be revised along with the National Standard in 2005-06.

115. The reference to the fifth edition of the ADG Code is now redundant as the sixth edition was published in 1998.

116. The National Road Transport Commission (NRTC) is planning to release an updated edition of the ADG Code every 2-3 years to reflect the similarly updated recommendations of the United Nations Orange book.

117. The seventh edition is currently being developed and is expected to be released in late 2004. It will be aligned with the 13th revised edition of the UN Orange book.

118. The revised regulations in the ADG Code are not automatically adopted by the jurisdictions. They must be agreed by a majority of jurisdictions represented on the Australian Transport Council, which meets twice a year in May and November. Once agreed, all jurisdictions are obliged to either legislate or reference the updated package.

119. Future reviews of the National Standard will consider changes to the ADG Code.

120. The MHF Code of Practice references 13 documents, and lists 28 items for further reading. Their continued relevance will be considered in the review of the MHF Code of Practice proposed for 2005-06. No Australian Standards are referenced.

6. ASSESSMENT OF EFFICIENCY AND EFFECTIVENESS

121. Due to the limited implementation of regulation based on the National Standard in Australian workplaces, there is a paucity of data on which any assessment of the effectiveness of the standard can be based.

122. The collection of useable data is also limited by major hazard facilities constituting low frequency/high consequence risks. Performance indicators that would allow, among other things, an indirect measure of the effectiveness of the National Standard and of the major hazard facility regulatory framework, are also not yet in place.

123. The National Standard is, however, similar to the main overseas approaches to major hazards, in that they all specify similar goal-setting and systems-based standards, which incorporate an explicit safety case/safety report component. In particular, the most influential European models: the COMAH Regulations 1999 (UK), and the Seveso II Directive on the major-accident hazards of certain industrial activities adopt this approach.

124. A report to the Commission of European Communities (1994) declared that the provisions of the original Seveso Directive had proved successful with respect to aspects of prevention, preparedness and response (although the 130 odd major accidents that have occurred in the EU since have prompted its revision (to Seveso II) to facilitate a greater exchange of information between Member States to include land use planning controls, and achieve harmonisation of national principles and practices regarding safety reports).

125. In its Report[5], the Longford Royal Commission found that the underlying causes of the accident were very much system related, and included the absence of adequate operating standards, practices and policies (eg lack of a HAZOP study, lack of training and lack of appropriate operating procedures). The Report views a safety case/report as: "for some time recognised as one of the most effective means of risk management where reliance is placed on self-regulation" (para 14.30). Had a safety case regime been in place at Longford, "it is likely it

[5] Longford Report, Hon. Sir Daryl Dawson (Chairman) and Mr Brian Brooks (Commissioner), *The Esso Longford Gas Plant Accident Report of the Longford Royal Commission*, Government Printer for the State of Victoria, Melbourne, 1999.

would have identified the very hazards which were in evidence on that day, hazards which a proper HAZOP study …would have identified" (para 14.33). The Longford Commission's major recommendations concerned the importance of implementing a regulatory regime that focussed upon the central elements of a comprehensive safety case.

Other Assessments

The "management systems" approach

126. There is evidence suggestive of the positive impact of a management system approach to OHS. For example, there is evidence that the best OHS outcomes are delivered by employers who have safety management systems based on the principles of total quality management. The quality management approach adopted by Shell Australia in its Health, Safety and Environment Management System is particularly cited as a model that "best practice" enterprises use to manage risk. [6]

127. The potential value and importance of a systems-based approach to OHS is also highlighted by research into coal mine safety.[7] This study of the compliance systems of the companies with the best coal mine safety records in the US found that the five safety leaders in the study had clearly defined systems of accountability for safety performance, rigorous monitoring of safety performance, and systems for communicating to managers and workers that their safety performance was not up to standard. Conversely, common organisational defects, which were most frequently a cause of disasters were: lack of a plan to deal with a hazard, or poor planning; a generalised pattern of inattention, or sloppiness, in relation to safety matters; poor communication, or reporting systems; inadequate training; and inadequate definition of responsibilities.

[6] Industry Commission, *Work, Health & Safety: Inquiry into Occupational Health and Safety*, Volume I Report, Report No 47, AGPS, Canberra, 1 September 1995.

[7] Braithwaite, J., *To Punish or Persuade: Enforcement of Coal Mine Safety*, State University of New York Press, Albany, United States, 1985.

CONCLUSION

128. In the absence of data, the only measure of how effective the National Standard may be in reducing the risk of accidents at major hazard facilities has been made against the performance of a similar system in Europe (Seveso I), the recommendations of the Longford Royal Commission, and by inference to the success of other models that adopt a similar management system approach. Indications are that a goal setting and management system based regime, as required by the National Standard, is the most appropriate means of preventing accidents at major hazard facilities.

7. ACTIONS TO FACILITATE IMPROVEMENT

129. The National Standard is broadly consistent with best practice internationally (as represented by COMAH and Seveso II) and also broadly consistent with the major recommendations of the Longford Report. Presently, it represents the most appropriate model on which to continue to build. However, in some important respects it falls short of COMAH/Seveso II and the Longford Commission recommendations and could usefully be revised. In doing so, the gap between the National Standard and COMAH, and the issues of effective worker participation, audits and government inspection and enforcement, will be critically important. For further consideration are the proposed developments in the Seveso III Directive.

130. Such revision however, should be a lower priority than ensuring that the National Standard is taken up and effectively adopted and implemented (as law) nation-wide.

131. NOHSC's workplan for major hazard facilities for 2003-04 involves the continuation of activities that contribute to the development of a consistent regulatory framework for the control of major hazard facilities, and more broadly, continue to contribute to efforts being made under the National Strategy.

132. Specifically, these activities include:

- where possible, assisting the jurisdictions in the implementation of legislation/regulations for the control of major hazard facilities based on the National Standard;
- giving support to the expert panel to be convened to develop a protocol for future reviews of Schedule 1 of the National Standard;
- facilitating the sharing of expertise and training material between jurisdictions and employers;
- assisting the development of guidance material for the benefit of regulators, employers, and employees for their participation in the development and assessment of safety cases;

- the development of useful performance indicators that will provide a measure of safety report milestones and safety outcomes;
- regular reporting to NOHSC on progress;
- maintaining a watching brief on national and international developments in major hazard facility regulation; and
- reviewing developments in the areas of security for facilities involved in the manufacture, distribution, storage, or handling of dangerous substances.

ACKNOWLEDGEMENT AND BIBLIOGRAPHY

Acknowledgement

Sections of this report were taken directly from:

Gunningham, Neil; Johnstone, Richard; and Burritt, Patricia (trading as Gunningham & Associates Pty Ltd): *Provision of Descriptive and Evaluative Advice on Australian and International Experience in the Use of National Standards in the Control of Major Hazard Facilities: A report for the National Occupational Health and Safety Commission*, September 1999.

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NOHSC, The *National Code of Practice for the Control of Major Hazard Facilities* [NOHSC:2016(1996)], September 1996.

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Attachment 1: Implementation of major hazard facilities regulation

Current Status of Adoption by Jurisdictions		Implementation of Legislation
Commonwealth **Department of Industry Tourism and Resources (DITR) and States/NT**	Offshore petroleum in Commonwealth waters is regulated by a Joint Authority arrangement in which the States/NT carry out all day-to-day regulatory activities with the Commonwealth Minister's view prevailing in the event of disagreement. The States/NT (in practice mainly WA) regulate in State and Coastal waters. DITR is responsible for Commonwealth regulations established to manage offshore petroleum. Following a review of existing arrangements the Commonwealth and States/NT have agreed to establish a National Offshore Petroleum Safety Authority, which will commence operations on 1 January 2005. Other aspects of offshore petroleum regulation such as titles, resource management, and environment will remain unchanged.	1 January 2005
Comcare	The Minister has agreed to proceed with the drafting of regulations on Major Hazard Facilities. The drafting instructions are being developed. The regulations will be based upon the NOHSC national standard and code of practice. Pending the development of regulations, the Safety, Rehabilitation and Compensation Commission issued guidance material titled Safety, Rehabilitation and Compensation Commission Guidance Material on the Control of Major Hazard Facilities by the Commonwealth in May 2000.	June – September 2004
Aust. Capital Territory **ACT WorkCover**	The ACT is developing a new Dangerous Substances Act for introduction in November 2003. This will allow for future development of MHF regulations consistent with the National Standard. However, as there are currently no major hazard facilities within the ACT, other areas of regulation are presently being given priority.	Mid-2004.
NSW Department of Infrastructure, Planning & Natural Resources (DIPNR)	NSW is adopting a whole of government approach to MHF and is looking at people, property, and environment issues. An Inter-Agency committee is examining MHF issues. NSW is developing legislation for MHFs.	2003 - 04
Northern Territory Work Health Authority	The Northern Territory is currently reviewing its dangerous goods legislation.	Unknown
Queensland Department of Emergency Services	The administrative arrangements of the Dangerous Goods Safety Management (DGSM) Act 2001 commenced on 7th November 2001 with full commencement (including MHF obligations, which incorporate the body of the National Standard) on 7th May 2002. 21 facilities have been classified as at 5 December 2002, with safety reports required by March 2004.	7 May 2002 (completed)

Current Status of Adoption by Jurisdictions		**Implementation of Legislation**
South Australia Workplace Services – Dept. for Administrative and Information Services	Workplace Services is finalising a Report to the Minister for Industrial Relations on a proposal for the introduction of legislation for the control of major hazard facilities. The Government of SA has provided a budget to Workplace Services for the establishment of legislation and its administration. Estimated legislative outcome by mid 2004.	Mid 2004
Tasmania Workplace Standards Tasmania (WST) – Dept. Infrastructure, Energy and Resources.	Major hazard facilities are identified via the storage schedules required as part of the licensing approvals under the *Dangerous Goods Act 1998* and are then managed and operated under the requirements of the *Dangerous Goods Act 1998* and the *Workplace Health and Safety Act 1995*. Currently WST is preparing a submission for Cabinet seeking approval for establishment of a new legislative package that will incorporate regulations for MHFs. Because of a shortage of drafting resources in the Office of the Parliamentary Counsel, it is envisaged that the new legislation will be drafted in 2004, subject to receiving Cabinet approval in October 2003, and will be in place by late 2004/early 2005.	Late 2004/Early 2005
Victoria WorkSafe Victoria	The Victorian Occupational Health and Safety (Major Hazard Facilities) Regulations commenced on 1 July 2000 and give effect to the National Standard and the recommendations of the Longford Royal Commission. The regulations include protection of people and property from acute events. The regulations require a safety case to be submitted within 24 months of registration as a major hazard facility. Victoria has assessed 39 safety cases and issued 37 licenses. These facilities are now under a post licensing oversight regime that includes inspection requirements. Five new major hazard facilities are currently preparing safety cases.	1 July 2000 (completed)
Western Australia Department of Industry and Resources (DoIR)	The National Standard was implemented administratively in September 1997, under the provisions of the Explosives and Dangerous Goods Act 1961. Western Australia is developing specific MHF regulations and the regulations are expected to be proclaimed by April 2004.	April 2004

1. SCOPE: Identification of major hazard facility - Presence of dangerous substances *Quantity of dangerous substances required to be held to bring facility under regulation /special requirements* ***[See National Standard 3.1 and 5.5-5.6]***	
Commonwealth **Comcare**	The Safety, Rehabilitation and Compensation (SRC) Commission has issued guidance material titled Safety, Rehabilitation and Compensation Commission Guidance Material on the Control of Major Hazard Facilities by the Commonwealth. The guidance material is an advisory document, not a legislative instrument, and is based upon the NOHSC national standard and code of practice. The guidance material allows operators of facilities to identify major hazard facilities using specific criteria derived from the NOHSC national standard. The Commonwealth is considering classification against all criteria in sec 5.5 and 5.6a & b of the National Standard.
Aust. Capital Territory **ACT WorkCover**	Major hazards are currently managed as part of existing dangerous goods licensing requirements and under the general duty of care requirements in the *Occupational Health and Safety Act* 1989.
NSW Department of Infrastructure, Planning & Natural Resources (DIPNR)	It is proposed that facilities with more than 100% of the aggregate threshold, based on schedule 1 of the National Standard, will be MHFs. Some facilities falling in the range of 10-100% of the aggregate threshold may be classified as MHFs based on criteria that may include consideration of on and off-site impacts to people, property and the environment.
Northern Territory **Work Health Authority**	
Queensland **Department of Emergency Services** **Dangerous Goods Safety Management Act (DGSM) Act commenced 7 November 2001**	The DGSM Act 2001 requires notification by facilities with greater than 100% of the prescribed quantities. The prescribed quantities are those that appear in the National Standard – Control of Major Hazard Facilities – Schedule 1. Classification as a MHF is based on quantity (>100%) as well as off site risk potential. Facilities may be classified as MHFs based solely on risk if it is considered warranted. At present facilities handling between 10-100% of the quantities specified in Schedule 1 are not being assessed; however, this is largely due to prioritisation rather than a lack of concern for these facilities. Once these high priority (i.e. greater than 100%) facilities are being adequately managed, the focus will shift to facilities handling between 10-100% of Schedule 1. Consultation with the Qld Dept of Health (Lead Agency for radiation and biological hazards) will occur to consider the classification of facilities with radiation and biological hazards.
South Australia **Workplace Services – Dept. for Administrative and Information Services**	No MHF legislation in place. Currently, Dangerous Substances legislation provides thresholds for Class 2 (LPG only), 3, 6 and 8 substances for licensing requirements of storage facilities. Workplace Services have reviewed the Dangerous Substances and Explosives Act with the aim of combining that legislation and the National Standard for Dangerous Goods into one piece of legislation. Major hazard facilities may form part of that proposal.

1. SCOPE: Identification of major hazard facility - Presence of dangerous substances *Quantity of dangerous substances required to be held to bring facility under regulation /special requirements* ***[See National Standard 3.1 and 5.5-5.6]***	
Tasmania **Workplace Standards Tasmania (WST) – Department of Infrastructure, Energy and Resources.**	Major Hazard Facilities are identified via the storage schedules required as part of the licensing approvals under the *Dangerous Goods Act 1998* and are then managed and operated under the requirements of the *Dangerous Goods Act 1998* and the *Workplace Health and Safety Act 1995.*
Victoria **WorkSafe Victoria**	The MHF Regulations classify facilities using the original Schedule 1 of the standard (Nt Std 5.5) and allow determination of facilities between 10% and 100% of the threshold (Regulation 705) (Nt Std 5.6)
Western Australia **Department of Industry and Resources**	The *National Standard for Control of Major Hazard Facilities* has been implemented in September 1997 under the provisions of Sections 45B(1) and 45C of the *Explosives and Dangerous Goods Act 1961*. MHFs have been identified as per Section 5 of the National Standard (i.e. sites storing 100% or more have been classified as MHFs, and sites storing/handling 10-100% have been screened and some have been classified as MHFs).

2 GENERAL OBLIGATIONS: Take all necessary measures to prevent a major accident *Regulation/etc which require operators to adhere to this 'general obligation'* ***[See National Standard 2.1]***	
Commonwealth	The general provisions of the *Occupational Health and Safety (Commonwealth Employment) Act 1991* (the OHS (CE) Act) apply. The guidance material provides advice on how to meet the general provisions of the OHS (CE) Act in regard to the control of major hazard facilities.
Aust. Capital Territory	Currently picked up under the general duty of care on persons in control of workplaces under the OHS Act 1989. No specific duty for provisions for major hazard operators.
New South Wales	The current DG Reg. requires licensees and occupiers of premises where dangerous goods are kept or explosives are manufactured, and employers and employees at these premises to take all practicable precautions to prevent the occurrence on the premises of accidents through fire, explosion, leakage of dangerous goods or other causes. Under the development application process for new potentially hazardous facilities, the Department of Infrastructure, Planning & Natural Resources (DIPNR) requires a preliminary hazard analysis to be performed and assessed prior to approval and for a number of other safety studies and safety systems to have been carried out and put in place prior to commencement of operation. This typically includes a requirement in the conditions of consent that the facility implement a comprehensive safety management system. It is intended that the NSW framework will include a general obligation on operators to take all practicable measures to prevent a major accident, consistent with the requirements of the National Standard.
Northern Territory	
Queensland	The DGSM Act 2001 has a general obligation that "everyone involved in the storage, handling or control of hazardous materials … has the following obligations … to take all reasonable precautions and care to achieve an acceptable level of risk." Section 16(1) "In addition ... the occupier (of a MHF) has the obligations under part 4" Section 16(3)
South Australia	No MHF legislation in place. The OHS&W Act and the *Dangerous Substances Act* both have general duty of care statements.
Tasmania	The general provisions of the *Workplace Health and Safety Act 1995* and *Dangerous Goods Act 1998 apply.*

2 GENERAL OBLIGATIONS: Take all necessary measures to prevent a major accident *Regulation/etc which require operators to adhere to this 'general obligation'* ***[See National Standard 2.1]***	
Victoria	Covered in both the *Occupational Health and Safety Act* 1985 (s21) and the *Dangerous Goods Act* 1985 (s31).
Western Australia	The operators of MHFs are required to comply with the National Standard. The National Standard has been implemented under the provisions of the *Explosives and Dangerous Goods Act 1961*. WA is currently in the process of rewriting the Act and Regulations, and the Regulations will incorporate the requirements of the National Standard. It is expected that the MHF Regulations will be proclaimed by April 2004. In addition, Regulation 4.18 of the *Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992* requires licensee, occupier, and any person in or about any premises in which dangerous goods are stored to take all precautions to prevent the occurrence of an accident.

3. NOTIFICATION: Presence of large quantities of dangerous substances	
Commonwealth	The guidance material does not provide for the role of a relevant public authority. As a result, there are no notification requirements to either the SRC Commission or Comcare. Relevant State and Territory dangerous goods and explosives legislation would apply to the Commonwealth, including any notification provisions. The Commonwealth is currently drafting Commonwealth Dangerous Goods regulations.
Aust. Capital Territory	Currently required to be licensed under dangerous goods legislation.
New South Wales	MHFs will be required to notify consistent with 5.1/2/3/4 of the MHF National Standard.
Northern Territory	
Queensland	Section 35 of DGSM Act 2001 requires possible major hazard facilities to notify providing the information as outlined in 5.2 of the Standard. (Possible major hazard facilities = facilities that store/handle greater than prescribed quantity i.e. Schedule 1 National Standard). Section 49 of the Act requires large dangerous goods locations to notify, and include storage quantities and classes. A large dangerous goods location is defined in Schedule 1 of the DGSM Regulation and roughly equates to 10% to 100% of Schedule 1 of the National Standard.
South Australia	No MHF legislation in place. Currently, the Dangerous Substances legislation requires licensing of premises where the quantities of dangerous substances kept exceed threshold quantities in the legislation. Licensing conditions require provision of information about the substances on site and evidence of compliance.
Tasmania	Notification under dangerous goods provisions of the *Dangerous Goods Act 1998* applies.
Victoria	MHF Regulations require notification under 701 for an existing MHF (Nt Std 5.1/5.5), 702 for a proposed MHF (Nt Std 5.1/5.4a), and 703 for over 10% of the threshold (Nt Std 5.1).
Western Australia	Dangerous Goods licensing, in accordance with the *Explosives and Dangerous Goods Act 1961*.

4. MAJOR ACCIDENT PREVENTION POLICY (MAPP): Aims and principles of action to minimize risk	
Commonwealth	Section 16 of the OHS (CE) Act and the provisions of the Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations would apply. The guidance material provides advice on hazard identification, risk assessment, and risk control – derived from the NOHSC national standard and code of practice.
Aust. Capital Territory	Currently no specific provisions relating to this issue.
New South Wales	Requirements will be consistent with sections 6.1-6.2 of the National Standard.
Northern Territory	
Queensland	The DGSM Act 2001 has a general obligation that "everyone involved in the storage, handling or control of hazardous materials … has the following obligations … to take all reasonable precautions and care to achieve an acceptable level of risk." Refer 16 A MHF has obligations under the Act to carry out, document, review, and update a systematic risk assessment (SRA) of the facility's operation. Specifically the SRA includes review and update before the facility is modified in a way that significantly alters the risk associated with the facility. Refer Section 41.
South Australia	No MHF legislation in place. Currently, there is a general duty of care for storage, handling, conveying, and usage or disposing of substances under the Dangerous Substances legislation.
Tasmania	The general provisions of the *Dangerous Goods Act 1998* and the *Workplace Health and Safety Act 1995* deals with this.
Victoria	Part 3 of the MHF Regulations requires hazard identification, risk assessment, and risk control, preparation of a Safety Management System, which is consistent with the standard. The employee involvement requirements are contained in Reg 307 and 501 (Nt Std 6.5)
Western Australia	Systematic risk assessment and risk control are required in accordance with Section 6 of the National Standard. This is a necessary component of the Safety Report

5. SAFETY REPORTS	
Commonwealth	The guidance material advises an operator to prepare a safety report to be kept on record for future reference. The matters to be included in a safety report are based on the NOHSC national standard and code of practice.
Aust. Capital Territory	Currently no specific provisions relating to this issue.
New South Wales	Under the proposed NSW regulatory regime, Safety Reports will be required to be prepared for both new and existing MHFs. Land use safety impacts are currently considered in the development approval process for new and modified facilities and conditions of consent may be imposed in relation to hazard analysis, emergency plans and safety management systems. Safety reporting requirements are currently being defined, in consultation with stakeholders. These will be consistent with section 7 of the National Standard.
Northern Territory	
Queensland	Under the DGSM Act 2001, occupiers of MHFs must submit a safety report that includes sufficient detail for the regulator to decide whether the risk at the facility is at an acceptable level and the occupier has fulfilled the obligations for: systematic risk assessment; safety management system; emergency plans and procedures; provision of information to the public; and induction, education and training provided to all persons at an MHF. Refer Section 47.
South Australia	No MHF legislation in place. Currently, no specific provisions under existing legislation.
Tasmania	The general provisions of the *Dangerous Goods Act 1998* and the *Workplace Health and Safety Act* 1995 cover this.
Victoria	Part 4 of the MHF Regulations sets out the content of the Safety Case (Nt Std 7.1,7.2,7.4,7.5); Reg 708 (Nt Std 7.3), Part 5 (Nt Std 7.6,7.7); Reg 306, 404 (Nt Std 7.8, 7.9), Schedule 2 (Nt Std 7.10)
Western Australia	The operators of MHFs are required to comply with the National Standard and development of a Safety Report is a condition of the licence to store dangerous goods.

6. SAFETY MANAGEMENT SYSTEM (SMS)	
Commonwealth	The guidance material advises an operator to establish, implement, and maintain a documented safety management system and to develop competency standards, which include responsibilities related to the safety management system. These provisions are based upon the NOHSC national standard and code of practice.
Aust. Capital Territory	Currently no specific provisions relating to this issue.
New South Wales	The NSW OH&S Act requires that every employer shall ensure the health, safety, and welfare at work of all the employer's employees, including a requirement for the provision and maintenance of safe systems of work. This reflects similar principles to those on which the requirements of the National Standard for MHFs are based. Under the development approval process, safety management systems are required as a condition of consent for certain types of new facilities. Current guidance material (Hazardous Industry Planning Advisory Paper (HIPAP) No 9 *Safety Management* will be updated and expanded.
Northern Territory	
Queensland	The DGSM Act 2001 has general obligations for the development, implementation and maintenance of a safety management system. Refer Section 23(1)(e). The DGSM Act specifically requires the MHF to have a documented, comprehensive integrated system for managing safety at the facility – Safety Management System. Refer Section 45. The SMS definition follows that of the National Standard and Code of Practice. Under the Act, occupiers of MHFs must submit a safety report that includes sufficient detail for the regulator to decide whether the MHF occupier has fulfilled the obligations for a safety management system. Refer Section 47.
South Australia	No MHF legislation in place. Currently, OHS&W Legislation requires employers to ensure the health, safety and welfare, at work, of the employer's employees, and any other person (not being an employee). The Dangerous Substances legislation and the Petroleum Products Regulation Act require a general duty of care for health, safety and environmental harm. All legislation (mentioned) requires a duty of care in relation to Plant.
Tasmania	Legislation administered by Workplace Standards Tasmania, the Department of Primary Industries, Water and Environment, and the Department of Police and Public Safety can impose this requirement.

6. SAFETY MANAGEMENT SYSTEM (SMS)	
Victoria	Reg 301 of the MHF Regulations requires an SMS (6.3) and Part 5 requires the operator to train employees (8.1)
Western Australia	As per the National Standard. The operator is required to demonstrate in the safety report that there are adequate controls at the facility. DoIR does not currently undertake an in depth review of the SMS, however the regulator's approach to SMS is being reconsidered in the development of new MHF Regulations. Third party auditors/consultants are used to either prepare the safety report or audit the safety report against the Standard. By utilising this approach, DoIR ensures that the process includes an independent review of the SMS.

7. LAND-USE PLANNING	
Commonwealth	The guidance material does not specifically cover matters on land use planning as the matter is beyond the scope of the OHS (CE) Act. The States and Territories cover land-use planning matters.
Aust. Capital Territory	Would be required to meet ACT Planning requirements.
New South Wales	Any proposal to build a new facility or modify an existing facility is required to demonstrate that it is appropriately located so as not to represent an incompatibility with existing land uses or potential future uses permitted under the zoning of the locality. The Environmental Planning and Assessment Act (EP&A Act) 1979 includes a number of heads of consideration which a consent authority must consider in deciding whether or not to approve a new facility or modification. The proposed framework will cover both public (planning) authority and operator responsibilities in relation to land use safety.
Northern Territory	
Queensland	The Department of Emergency Services (through the CHEM Unit) is a "concurrence agency" for MHFs and possible MHFs through the Integrated Development Assessment System (IDAS) under the Integrated Planning Act 1997. Under the DGSM Act 2001 a consultation zone around a MHF can be designated. Refer Section 180.
South Australia	No MHF legislation in place. Currently, the Development Act places duties to meet planning and policy provisions.
Tasmania	Required under the existing land-use legislation administered by the Department of Primary Industries, Water and Environment.
Victoria	Land use planning is the responsibility of the Victorian Department of Infrastructure and is currently under review. WorkSafe make comment on Land Use Planning issues when invited by DOI.
Western Australia	DoIR (formerly Department of Mineral and Petroleum Resources) works closely with the Department of Environmental Protection (DEP), the Office of Major Project (formerly - Department of Resources Development), the Department for Planning and Infrastructure, the operator of a MHF, and developers in relation to land use planning in the vicinity of a MHF. Within the Western Australia State Government, DoIR is the provider of expert advice on risk assessment.

8. EMERGENCY PLANNING	
Commonwealth	The guidance material provides advice to an operator on emergency planning. This provision is based upon the NOHSC national standard and code of practice. The guidance material does not include a role for the relevant public authority.
Aust. Capital Territory	Currently no specific provisions relating to this issue.
New South Wales	The NSW Dangerous Goods (General) Regulation 1999 requires emergency planning in some cases and to some extent. There is a requirement for the licensee or occupier of premises to immediately take all practicable steps to contain, clean up and dispose of the goods and otherwise make the area safe if there is an escape of dangerous goods on the premises. More specific requirements apply for some classes of dangerous goods. Under the development approval process, new and modified potentially hazardous developments are typically required by conditions of consent to have emergency plans in place before commencement of operation. Emergency planning requirements will be generally consistent with the National Standard but will take into account overriding legislation in relation to public authority responsibilities covering off-site emergency arrangements. Some requirements of the National Standard conflict with these arrangements.
Northern Territory	
Queensland	The DGSM Act 2001 has general obligations for the establishment, documentation, maintenance and review of emergency plans and procedures. Refer Section 23(2). The Act specifically requires a MHF to establish and document Emergency Plans and Procedures following consultation with emergency services and persons in areas around the MHF where material harm can be caused if a major accident happens at the facility. Refer Sections 42 & 43. DGSM Regulation 2001 sets out details of what must be contained in the Emergency Plans and Procedures. Refer Section 61 (Regulation). Under the Act, occupiers of MHFs must submit a safety report that includes sufficient detail for the regulator to decide whether the MHF occupier has fulfilled their obligations for emergency plans and procedures. Refer Section 47. (Material harm means harm that causes or has the potential to cause harm to a person that requires or may require treatment by a doctor; or results in costs of more that $1,000 being incurred to prevent, minimise or repair harm to property or the environment.)
South Australia	No MHF legislation in place. Currently, the OHS&W, Dangerous Substances and Petroleum Products Regulation Acts all have general duty of care provisions. Some emergency planning is required of the State Divisional Disaster Committee in accordance with the State Disaster Act.

8. EMERGENCY PLANNING	
Tasmania	Required under the existing emergency services legislation, *Workplace Health and Safety Act 1995* and *Dangerous Goods Act 1998*.
Victoria	Regulation 305 and Schedule 3 of the MHF Regulations meet Part 9
Western Australia	As per the National Standard, and also Regulation 4.28 of the *Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992* requires emergency planning. DoIR requires the operator of a MHF to consult with Fire and Emergency Services Authority (FESA) and obtain FESA approval of the emergency response plans.

9. PROVISION OF INFORMATION AND CONSULTATION ON SAFETY MEASURES (to the local community)	
Commonwealth	The guidance material does not specifically cover matters on consultation with the community as the matter is beyond the scope of the OHS (CE) Act.
Aust. Capital Territory	Currently no specific provisions relating to this issue.
New South Wales	Community consultation requirements are likely to be consistent with the National Standard.
Northern Territory	
Queensland	Under the DGSM Act 2001 the occupier must "identify areas surrounding a MHF in which there may be material harm caused if a major accident happens", and "consult with and inform persons in the areas about the hazards at the MHF and the safety measures that should be taken if a major accident … and update the information as often as necessary …". Refer Section 46.
South Australia	No MHF legislation in place. Currently, Development Regulations and the Environmental Protection Act require consultation for activities of environmental significance, as defined. State Divisional Disaster Committees have consultative responsibilities under the State Disaster Act.
Tasmania	Covered by the land use planning legislation, which is administered by the Department of Primary Industries, Water and Environment.
Victoria	Part 5 requires the operator to consult with the community (7.7) and the information requirement meets Chapter 12
Western Australia	Each MHF operator commits in its safety report to consult with the community at specified intervals. To date, this issue has been addressed via public meetings arranged by the MHF operator, or community advisory panel meetings.

10. ACCIDENT REPORTING	
Commonwealth	The guidance material includes a requirement for notification to Comcare of accidents and dangerous occurrences in accordance with the provisions of the OHS (CE) Act and the Occupational Health and Safety (Commonwealth Employment) Regulations.
Aust. Capital Territory	Dangerous occurrence reporting currently required under the OHS Act.
New South Wales	The NSW Occupational Health and Safety Act requires accidents at the workplace to be notified to WorkCover. The Dangerous Goods (General) Regulation 1999 requires notification of dangerous occurrences. Reporting requirements for accidents and near misses will be consistent with the National Standard. Interim major accident reporting arrangements are currently being established in cooperation with relevant NSW agencies. A major accident database is being set up. Criteria for near miss reporting are under consideration. The are some concerns as to the extent to which it will be realistically possible to capture near-miss information.
Northern Territory	
Queensland	Under the DGSM Act 2001 the occupier of a MHF must immediately notify the chief executive if a major accident happens. If this immediate notification is oral, written confirmation must be given within 7 days. The occupier must: investigate the major accident; give a written report within 1 month; and consult with employees on the report and on ways to avoid future accidents and near misses. Refer Section 126 The occupier does not need to report near misses. The act requires the occupier to record the near miss; investigate the near miss and record the results of the investigation; and consult with employees on ways to avoid future near misses. Refer Section 127 (A major accident means a sudden occurrence (including, in particular, a major emission, loss of containment, fire, explosion or release of energy) leading to serious danger or serious harm to persons, property or the environment, whether immediate or delayed.)
South Australia	No MHF legislation in place. Currently, the OHS&W legislation requires notification of 'immediately notifiable work related injuries' and 'dangerous occurrences' as defined. Dangerous substances legislation requires accident reporting when an injury results in 3 days or more away from work, a death or fire and explosion.
Tasmania	Required under *Workplace Health and Safety Act 1995* and *Dangerous Goods Act 1998.*
Victoria	Incident reporting required under the OHS (Incident Notification) Regulations and the *Dangerous Goods Act,* in addition to *Regulation 305(7)(a*) of the MHF Regs.
Western Australia	As per the National Standard and also a requirement of the *Explosives and Dangerous Goods Act* 1961.

11. INSPECTIONS TO BE PROVIDED BY RELEVANT AUTHORITY	
Commonwealth	The guidance material includes a requirement for notification to Comcare of accidents and dangerous occurrences in accordance with the provisions of the OHS (CE) Act and the Occupational Health and Safety (Commonwealth Employment) Regulations.
Aust. Capital Territory	Currently as part of workplace inspections under dangerous goods and OHS legislation.
New South Wales	WorkCover NSW currently carries out workplace inspections. Inspections of MHFs are carried out from time to time, as for other workplaces. Inspection arrangements are yet to be defined. However, a joint agency site visit protocol has been developed between DIPNR and WorkCover NSW and a program of site visits to prospective MHFs are well under way. In the longer term, it is intended that inspection and enforcement arrangements will be on a coordinated whole of government basis.
Northern Territory	
Queensland	Inspections and audits are conducted at MHFs using a multi agency team approach. These inspections and audits determine the level of compliance with DGSM Act & Regulation obligations and verify the contents of the submitted safety report.
South Australia	No MHF legislation in place. Currently, under the Dangerous Substances and Petroleum Products Regulation legislation the licensing approval process requires an Inspector to approve plans and site storage facilities. Under OHS&W, Dangerous Substances and Petroleum Products Regulation legislation, Inspectors have powers that allow access to any workplace for inspection purposes, relative to the legislative requirements.
Tasmania	The provisions of the *Workplace Health and safety Act 1995* and *Dangerous Goods Act 1998* require operators to provide and maintain a safe working environment, safe systems of work and plant and substances in a safe condition etc. Authorised Officers under this same legislation audit such operations for compliance with the legislation. Officers from the Department of Primary Industries, Environment and Water also conduct similar audits for compliance with the land use legislation.
Victoria	These powers are provided under the OHS and DG Acts. Dedicated inspectors are provided at a higher ratio for MHFs than other workplaces.
Western Australia	DoIR conducts inspections by authority of the *Explosives and Dangerous Goods Act 1961*. In addition, there are independent third party audits of the Safety Report, including the Safety Management System.

12. PROHIBITION OF USE OF DANGEROUS FACILITY	
Commonwealth	The guidance material does not include a role for a relevant public authority. If a circumstance arose where 'prohibition of use of a dangerous facility' was an identified need after an investigation, then the matter would be dealt with under the OHS (CE) Act.
Aust. Capital Territory	Currently no specific provisions relating to this issue.
New South Wales	Under the existing NSW Occupational Health and Safety Act, occupiers of premises are required to prevent the disturbance of an area in which a dangerous occurrence has occurred for a defined period that can be extended by inspector's notice. Inspectors' notices may also prohibit any activity at a workplace that involves or will involve an immediate risk to the health or safety of any person. Provisions are still to be defined.
Northern Territory	
Queensland	The DGSM Act 2001 has provisions such that if an authorised officer believes risk from operations is not at an acceptable level, the authorised officer may give a directive to the occupier to suspend operations in all or part of the MHF. Refer Section 97
South Australia	No MHF legislation in place. Currently, the OHS&W Act and DS Act both have the power for an inspector to "prohibit" an action or use of equipment if an immediate safety concern is identified.
Tasmania	The powers are provided under the *Workplace Health and Safety Act 1995* and *Dangerous Goods Act* 1998*.*
Victoria	These powers are provided under the OHS Act, DG Act and with the licensing provisions of the MHF Regs.
Western Australia	In addition to provisions under the *Explosives and Dangerous Goods Act 1961* for the Chief Inspector to impose terms, restrictions, conditions and prohibitions on any licence to store dangerous goods in the interests of safety, Section 48 of the Act empowers the Chief Inspector to cease the operation/practice in the interests of safety.

13. ADMINISTRATIVE CO-OPERATION	
Commonwealth	There are no administrative arrangements in place specific to the control of major hazard facilities.
Aust. Capital Territory	None.
New South Wales	Administrative cooperation between key agencies is generally informal, although there are integrated assessment provisions in relation to certain planning approvals. Close coordination is being maintained through a Major Hazards Inter-agency Committee (MHIAC) established by the NSW Cabinet in July 2000. MHIAC comprises all NSW government agencies with a significant role in the control of MHFs.
Northern Territory	
Queensland	Coordinated by the CHEM Unit, Department of Emergency Services. Involves: Queensland Fire and Rescue Service; Dept Employment and Training (Division of Workplace Health and Safety); Environmental Protection Agency; Department of Natural Resources and Mines (Petroleum and Gas Inspectorate and Explosives Inspectorate), Radiation Health Unit, Queensland Department of Health; Local Government Authority.
South Australia	No MHF legislation in place, however, a MHF Advisory Board has been established and at this stage, prior to the introduction of any proposed legislation, only meets as required. The MHF Board has membership from all Government agencies with a legislative interest in MHFs.
Tasmania	There are administrative systems in place where all relevant agencies share information and determine administrative responsibility where issues may involve multiple agencies.
Victoria	The 2 fire authorities have seconded staff to work with VWA's Major Hazards Division and Memoranda of Understanding are in place with other agencies to ensure streamlined administrative approaches to MHFs.
Western Australia	DoIR has a MOU with the Department of Environmental Protection, a partnering arrangement with the Fire and Emergency Services Authority and a Co-regulatory agreement with WorkSafe WA. All of these authorities are aware of DoIR's role as RPA for the National Standard.

14. RIGHTS & DUTIES OF WORKERS & REPRESENTATIVES	
Commonwealth	The guidance material includes advice on matters in which an operator should consult with employees and health and safety representatives. The matters relate to the preparation of safety reports, an understanding of the safety management system, lessons learned from accidents and near misses, training and education, and emergency planning. The guidance material also gives advice on the responsibilities of employees to comply with safety requirements and their need to have access to certain information. The advice is based upon the NOHSC national standard and code of practice.
Aust. Capital Territory	Current provisions under the OHS Act relating to employee safety, employee rights and OHS representative rights and powers.
New South Wales	The NSW Occupational Health and Safety Act requires every employee while at work to take reasonable care for the health and safety of persons at the workplace, and to cooperate with measures intended to protect health, safety and welfare. NSW provisions will be consistent with the National Standard. Consultation is being carried out with worker representatives during the development of NSW technical, regulatory and administrative procedures for MHFs.
Northern Territory	
Queensland	Throughout the DGSM Act 2001 there is the obligation for the occupier of the MHF to consult with employees. Employees have the following obligations: to comply with procedures applying to the employee or other person that are part of a safety management system; to comply with instructions given for the safety of persons by the occupier or a supervisor; to report to a supervisor any matter that may affect the safety of persons or harm property or the environment; to take any other reasonable and necessary course of action to ensure anyone is not exposed to an unacceptable level of risk. Refer Section 24. Under the Act there is an obligation to "provide appropriate induction, information, supervision, education and training to all persons at a MHF…so that the persons may carry out their roles and duties safely." Refer Section 23(1)(d) & 44.
South Australia	No MHF legislation in place. Currently, the OHS&W legislation requires employers to consult with employees. Employees may elect Health & Safety Representatives for designated work groups. H&S Reps have authority to represent OH&S issues, for resolution by employers.
Tasmania	*Workplace Health and Safety Act* 1995 provides: Employees and Employee Safety Representative are required to be informed and consulted; and all employees must comply with safety requirements
Victoria	Regulation 501, 502 requires consultation and training (8.2-8.4); Regulation 501 meets 6.5 and 7.6.
Western Australia	As required by the National Standard and consistent with Western Australian OHS legislation.

15. DEVELOP OHS COMPETENCY STANDARDS	
Commonwealth	The guidance material advises an operator to develop enterprise level OHS competency standards and to train all employees and contractors. Advice is also provided on safety information to be provided to visitors.
Aust. Capital Territory	Currently no specific provisions relating to this issue.
New South Wales	Under the OH&S Act, employers are currently required to provide such information, instruction, training and supervision as may be necessary to ensure the health and safety at work of the employer's employees. Development of enterprise level competency standards is not specified. These have not yet been considered in detail.
Northern Territory	N/A
Queensland	The DGSM Act 2001 requires Occupiers of MHFs to establish, maintain, review and update standards of competency as part of their education and training obligation. Refer Section 44.
South Australia	No MHF legislation in place. Currently, under the OHS&W legislation, employers are required to provide such information, instruction, training and supervision as may be necessary to ensure the health and safety at work of employees. Competencies have been developed for dangerous substances road and rail transport.
Tasmania	This requirement would be addressed under section 9 *Workplace Health and Safety Act* 1995.
Victoria	Part 5 of the MHF Regs meets 8.1 in conjunction with OHS Act Section 21.
Western Australia	As required by the National Standard.

16. SECURITY	
Commonwealth	The guidance material advises an operator to develop enterprise level OHS competency standards and to train all employees and contractors. Advice is also provided on safety information to be provided to visitors.
Aust. Capital Territory	Currently no specific provisions relating to this issue.
New South Wales	The current NSW DG Regulation requires licensees and occupiers of premises where dangerous goods are kept or explosives are manufactured, and employers and employees at these premises, to take all practicable precautions to prevent persons from entering the premises and any depot or building in or on the premises, and from having access, except with permission, to any dangerous goods in or on the premises. Provisions will be consistent with the National Standard. As an interim measure, letters have been sent to all sites identified as being potential MHFs requesting that they review current site security arrangements and take steps to ensure that arrangements are appropriate for the site.
Northern Territory	
Queensland	Not mentioned as a specific obligation in the DGSM Act 2001, but implied through the requirement for a systematic risk assessment and safety management system and highlighted in associated Occupier Guidelines.
South Australia	No MHF legislation in place. Currently, the OHS&W legislation requires employers to undertake risk assessments for work practices and plant. The Dangerous Substance legislation requires some provisions for the secure keeping of substances, as part of Departmental or Regulatory licence conditions.
Tasmania	This requirement would be identified and addressed under the Identification, Assessment and Control provisions required by regulation under the *Workplace Health and Safety Act* 1995.
Victoria	A facility for which security was an important control would be required to include it the safety case as a 'control measure' (and hence be assessed in Part 3). In light of recent events additional security issues are being addressed at a state level.
Western Australia	As required by the National Standard, and also a requirement of Regulation 4.15 of the *Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992*.

17. CURRENT/ FUTURE DEVELOPMENTS AND OTHER COMMENTS	
Commonwealth	The SRC Commission agreed that the guidance material titled *Safety, Rehabilitation and Compensation Commission Guidance Material on the Control of Major Hazard Facilities by the Commonwealth* (based on the NOHSC national standard and code of practice) would be an interim measure pending the development of regulations under the OHS (CE) Act.
Aust. Capital Territory	Currently there are no specific requirements for the control of major hazard facilities in the ACT. At this stage the ACT is only having preliminary discussions internally about the provisions of the National Standard. A decision is still to be made how these will be picked up and where they will sit (i.e., under dangerous goods or OHS legislation). Major hazards are currently managed as part of existing dangerous goods licensing requirements and under the general duty of care requirements in the OHS Act 1989. It is possible that proposed utilities legislation might also cover those facilities operated by utility supply organisations. The ACT has recently commenced major reviews of dangerous goods and OHS legislation. The number of facilities in the ACT that will either meet the threshold levels in the national standard or the 10% notification level is likely to be very small.
New South Wales	Active consideration is being given to the development and implementation of mechanisms for the control of major hazard facilities in New South Wales, and these are expected to incorporate the key outcomes of the National Standard. This is currently the subject of inter-agency discussions. A submission to government has been developed that includes a regulatory regime to impose obligations consistent with the National Standard. Projects are being conducted in consultation with industry and employee representative working groups.
Northern Territory	Under consideration
Queensland	The first facilities have now been gazetted (1st Nov 2002) as MHFs and their timetable for discharging of specific control of major hazard facility obligations has commenced. The CHEM Unit in conjunction with multi agency teams will progress monitoring the compliance of MHFs with their obligations. Safety Reports for these MHF are due March 2004.
South Australia	Development of a regulatory regime for major hazard facilities is currently being undertaken in South Australia, however, at this stage there is no Ministerial statement that approves or rejects the introduction of the National Standard. It is expected that some form of regulatory control for MHFs will be introduced during 2004.
Tasmania	Given the existing legislative provisions and the thrust of the national standard being targeted to address off site effects of-on-site accidents, Tasmania has yet to determine which agency, if any, needs to adopt this standard. WST intends to adopt the intent of the National Standard through its intended legislative package.
Victoria	Victorian Department of Treasury and Finance reviewed all government agencies using safety case approaches with reports expected in 2002. In addition International safety case issues and developments are being monitored. Licensing of the majority of MHFs will be complete by 2003.
Western Australia	Of the 23 currently classified MHFs in Western Australia, 16 have endorsed safety reports and the remainder will be endorsed by the end of April 2003. DoIR is currently: ➢ Reviewing its approach to MHFs in order to refine the Western Australian approach; ➢ Considering widening the scope of its implementation of the National Standard to capture mine sites, ports, transit storage and explosives manufacture/storage; and ➢ Reviewing resource needs.