



Government of **Western Australia**  
Department of **Mines and Petroleum**  
Resources Safety

## **RESOURCES SAFETY ACHIEVEMENTS AND PERFORMANCE 2013-14**

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# 1 Introduction

The Department of Mines and Petroleum (DMP) Resources Safety Division is the State's specialist regulator for occupational health and safety in the minerals, petroleum and geothermal energy sectors, and administers legislation for the safe use of dangerous goods. Resources Safety Division is also responsible for implementing the State Government's safety reform strategy (also known as Reform and Development at Resources Safety or RADARS).

To save lives and reduce injuries, industry, employees and the regulator must work together to make the necessary cultural changes. While extra safety regulatory resources and legislation are essential, significant reductions in incidents can only be achieved if a resilient safety culture is encouraged and maintained across the mining, petroleum and geothermal energy, and dangerous goods sectors.

The department's current approach to safety regulation represents a balance between promoting safety outcomes, monitoring compliance, and enforcement. Under the reform strategy, the department will go beyond compliance monitoring to encourage duty holders to improve their management of risk, independently of the issue of compliance.

Significant investment and growth in the mining and petroleum sectors over the past decade required a proportionate response by Government. In order to maintain an appropriate level of safety regulatory services and implement the safety reform strategy for Resources Safety, funding is obtained through cost recovery from the relevant industry sectors.

For the mining industry this came into effect in May 2010, through a levy imposed under the *Mines Safety and Inspection Act 1994* and the *Mines Safety and Inspection Levy Regulations 2010*. For the petroleum and geothermal energy industry this came into effect in January 2012, through levies imposed under the *Petroleum and Geothermal Energy Safety Levies Act 2011* and regulations. Cost recovery in the dangerous goods sector was implemented through increases in major hazard facility fees and user fees for explosives reserves.

This report details expenditure of the mines safety and inspection levy as well as the petroleum and geothermal energy safety levies; safety inspectorate performance across the mining, petroleum and dangerous goods sectors; and achievements under the RADARS strategy.

The form and content of this report was determined in 2011 in consultation with the Ministerial Advisory Panel on Best Practice Safety Strategies, which consisted of representatives from industry, unions and the regulator.

## 2 Mining safety and health

### 2.1 Auditing of revenue and expenditure

A Special Purpose Account has been established to hold monies collected via the Mines Safety and Inspection Levy. The monies in this account can only be used for the purpose of paying costs associated with administering the *Mines Safety and Inspection Act 1994*.

Compliance with this requirement of the legislation and compliance with all other statutory and policy requirements applicable to Government funds is subject to audit by the Office of the Auditor General on an annual basis.

### 2.2 Income and expenditure statement

The table below shows the income and expenditure against the Mines Safety and Inspection Levy. Full year expenditure figures are reported for the years 1 July 2010 to 30 June 2014.

	2010-11 July-June ACTUALS \$'000s	2011-12 July-June ACTUALS \$'000s	2012-13 July-June ACTUALS \$'000s	2013-14 July-June ACTUALS \$'000s	2014-15 July-June BUDGET \$'000s
Opening balance	1,932	2,013	11,352	10,459	7,865
<b>EXPENSES</b>					
Salaries and Superannuation	11,473	14,346	14,353	15,168	15,743
Training and development	370	39	316	556	561
Supplies and services	4,104	4,621	4,484	4,930	4,999
Office accommodation	551	660	824	979	1,034
Depreciation	133	419	209	210	233
Other expenses	9	43	151	55	56
Corporate costs	3,583	4,651	4,799	5,317	6,345
	20,223	24,779	25,136	27,215	28,971
<b>INCOME</b>					
Funds raised by Levy	20,304	34,118	24,243	24,621	22,411
Surplus for the period	81	9,339	(893)	(2,594)	(6,560)
Accumulated surplus	2,013	11,352	10,459	7,865	1,305

## 2.3 Performance

The following table reports on the work of the mining safety inspectorate during 2013-14. Additional functions are undertaken by the Department to meet its obligations as a safety regulator.

Function or activity	Indicator	Activity	Additional comment(s)
<b>Complaints about workplace health and safety</b>	Number of complaints received and resolved	144 formal complaints dealt with	All complaints resolved within agreed timeframes
<b>Notifiable incidents</b>	Number of incident reports received and processed	2448 notifiable incidents received and entered into the Safety Regulation System (reporting database)	All incident reports processed within agreed timeframe
<b>Investigations</b>	Number of Investigations conducted	69 formal investigations undertaken and finalised.	All investigations completed within appropriate timeframes
<b>Inspections and audits</b>	Rate of close-out of notices issued by inspectors	3254 site inspections and industry contacts carried out 716 Improvement Notices issued and 469 closed out 159 Prohibition notices issued 214 site audits carried out 1826 formal contacts with Safety and Health Representatives by an inspector on site and training presentations	
<b>Approvals</b>	Technical assessments and response concluded within 30 working days for: - Project Management Plans - Radiation Management Plans - Mechanical, Structural and Geotechnical Engineering	947 technical assessments and reviews undertaken This includes: 80 Project Management Plans 18 Radiation Management Plans 101 Classified plant registrations	All completed within required timeframes
<b>Training</b>	Number of inspectors who have completed scheduled training	239 inspectors' training events attended 74 Certificates of Competency awarded	

### 3 Petroleum and geothermal energy safety and health

#### 3.1 Auditing of revenue and expenditure

A Special Purpose Account has been established to hold monies collected from petroleum and geothermal energy safety levies. The monies in this account can only be used for the purposes specified in the *Petroleum and Geothermal Energy Safety Levies Act 2011* which is the administration and enforcement of the listed OSH laws in the petroleum safety legislation.

Compliance with this requirement and all other statutory and policy requirements applicable to Government funds is subject to audit by the Office of the Auditor General on an annual basis.

#### 3.2 Income and expenditure statement

The table below shows the income and expenditure against the Petroleum and Geothermal Energy Safety Levies. Full year expenditure figures are reported for the years 1 January 2011 to 30 June 2014.

	2011-12 January-June ACTUALS \$'000s	2012-13 July-June ACTUALS \$'000s	2013-14 July-June ACTUALS \$'000s	2014-15 July-June BUDGET \$'000s
Opening balance		425	1,216	1,065
<b>EXPENSES</b>				
Salaries and Superannuation	1,287	2,892	3,229	3,355
Training and development	11	178	134	168
Supplies and services	82	727	330	1,114
Office accommodation	14	71	168	211
Depreciation	21	5	3	4
Other expenses	4	1	0	0
Corporate costs	559	1,052	963	1,085
	1,978	4,926	4,827	5,937
<b>INCOME</b>				
Funds raised by Levy	2,403	5,717	4,676	5,238
Surplus for the period	425	791	(151)	(699)
Accumulated surplus		1,216	1,065	366

### 3.3 Performance

The following table reports on the work of the petroleum safety inspectorate during 2013-14. Additional functions are undertaken by the Department to meet its obligations as a safety regulator.

Function or activity	Indicator	Activity	Additional comment(s)
<b>Investigations and reviewed investigations</b>	Number of Investigations and investigations reviewed	2 formal investigations	All investigations reviewed within appropriate timeframes
<b>Audits</b>	Number of audits conducted by inspectors	43 audits completed or reviewed	(See footnote below)
<b>Safety Case</b>	Number of safety documents reviewed/approved	29 Safety documents reviewed / approved	All completed within required timeframes
<b>Liaison Meetings</b>	Number of liaison meetings with stakeholders	64 liaison meetings with stakeholders	
<b>Liaison Meetings</b>	Number of inspectors who have completed scheduled training	130 employees attended training events 23 Certificates of Competency awarded	Completed according to schedule

NOTE: Development work is being undertaken on a comprehensive electronic Safety Regulation System (SRS) with the capacity to record and track the lodgement of activities such as complaints, reports, and notifications, and to assist in the management of these activities. Currently, much of the data management is undertaken manually. Once SRS is operational, appropriate targets will be set and reported against.

## 4 Dangerous goods

### 4.1 Performance

The following table reports on the work of the dangerous goods safety inspectorate during 2013-14. Additional functions are undertaken by the Department to meet its obligations as a safety regulator.

Function or activity	Indicator	Activity	Additional comment(s)
<b>Investigations</b>	Number of investigations conducted	93 formal incident investigations undertaken and finalised	All investigations completed within appropriate timeframes
	Number of major hazard facility (MHF) investigations reviewed	39 major hazard facility investigations reviewed	
<b>Inspections and audits</b>	Number of inspections conducted	576 site inspections conducted	(See footnote below)
	Number of audits conducted	12 site audits conducted	
	Number of audits (MHF) reviewed	2 major hazard facility audits reviewed	
<b>Technical assessments and reviews</b>	<ul style="list-style-type: none"> <li>- DG licence applications or amendments</li> <li>- Exemption requests</li> <li>- Explosives / fireworks authorisations</li> <li>- Explosive licence applications or amendments (all types)</li> <li>- Explosives management plans</li> <li>- Fireworks display permit applications</li> <li>- MHF screenings</li> <li>- Security plans (SRS)</li> <li>- Port Special berth approvals</li> <li>- Transport container design approvals</li> <li>- Training courses and exemption requests</li> </ul>	594 technical assessments and reviews undertaken	All completed within required timeframes
<b>MHF Safety Report assessments - New/Update</b>	Number of new/updated MHF safety report assessments conducted	2 safety report assessments conducted	All completed within required timeframes
<b>Training</b>	Number of inspectors who have completed scheduled training	68 employees attended training events 43 Certificates of Competency awarded	

NOTE: Development work of a comprehensive electronic Safety Regulation System (SRS) with the capacity to record and track the lodgement of activities such as complaints, reports, and notifications, and to assist in the management of these activities is underway. Much of the data management continues to be recorded manually. Once SRS is operational, appropriate targets will be set and reported against.



## 5 Achievements

### **Restructure of Petroleum Safety and Dangerous Goods Safety Branches**

In late 2013, an external consultant undertook a structural review of the Dangerous Goods Safety and Petroleum Safety Branches within Resources Safety Division. The review resulted in the amalgamation of both branches to form a new Dangerous Goods and Petroleum Safety Branch, as of 1 July 2014.

A key part of the change has been to amalgamate the major hazard facilities and petroleum safety staff into a new Critical Risk Section. Dangerous Goods Safety remains separate. Both the Critical Risk Section and the Dangerous Goods Safety Section now report to the Director Dangerous Goods and Petroleum Safety.

### **Recruitment and training - building competency in safety regulation**

#### Mines Safety

In early 2014, the Mine Safety Branch completed leadership recruitment for the three regional inspector and the new team leader positions.

A competency-based development program has been implemented for new and existing staff, with training leading to nationally recognised qualifications. One aspect of this training is that it ensures that staff newly recruited to the public sector out of industry, are quickly introduced to the standards required of them in their new context.

The training program is also designed to equip inspectors with skills that will be needed as the legislation that they enforce is reformed.

A significant part of this has been delivering the Global Minerals Industry Risk Management (G-MIRM) training course, known as the G3 course. It provides the same level of risk management knowledge that will be expected of Registered Mines Managers in the future.

The G3 course raises awareness and early recognition of significant hazards and risks, develops skills to scope risk assessments and instruments for considering good practice approaches, provides tools to improve risk management and raising safety maturity, produces better risk management decision-making via personal commitment and accountability and identifies opportunities for strengthening internal procedures and policies.

The G-MIRM training has been delivered to participant groups comprising both Mines Safety inspectors and industry managers. This has encouraged networking and an exchange of understanding between inspectors and sector leaders.

#### Petroleum and Dangerous Goods

The restructure of the new Critical Risks Branch coincided with the renewal of the Attraction and Retention Incentive (ARI) contracts for staff. The ARI contract positions were advertised and most positions filled.

A comprehensive training program was adopted to ensure ongoing provision of high quality dangerous goods safety regulation services. The Dangerous Goods Safety inspectors completed training and were assessed in investigations training, occupational health and safety, and training and assessment.

All Petroleum Safety inspectors attended customised, in-house training in the TÜV Rheinland Functional Safety Program. This program is defined against international standards IEC 61508 and IEC 61511. This internationally recognised competency-based training required an examination before the award of certificates.

### **Safety Legislation Reform**

During 2013, Resources Safety commenced the Safety Legislation Reform project, to develop and implement reforms to the safety and health legislation for the resources sector.

The project is initially focused on the modernisation of the mines safety legislation, in line with a review of the national work health and safety model.

The department is also examining the potential consolidation of safety legislation for mining, petroleum and major hazard facilities. A comprehensive regulatory impact assessment consultation process will be undertaken in 2014-15, to determine the most appropriate consolidation approach.

Following this, the legislation for petroleum safety and major hazard facilities will be reviewed and modernised, with appropriate stakeholder consultation.

### **Ministerial Advisory Panel on Safety Legislation Reform**

In January 2014, the Minister for Mines and Petroleum established a Ministerial Advisory Panel on Safety Legislation Reform (MAP), to provide input into the development of the Work Health and Safety legislation for the Western Australian resources sector. The Panel met three times in 2013-14 and comprises of representatives from industry, unions and the regulator. All meeting papers for the Panel can be found on the Department's website: <http://www.dmp.wa.gov.au/19517.aspx>

Three Working Groups were established to conduct detailed work on the reforms and make recommendations to the Ministerial Advisory Panel – these covered guarding (of plant and machinery), asbestos, and work in confined spaces. Papers from the working groups can be found on the Department's website: <http://www.dmp.wa.gov.au/20279.aspx>

### **Mining Industry Advisory Committee**

MIAC met six times in 2013-14 and comprises of representatives from industry, unions and the regulator, as well as technical experts. All meeting papers for the Panel can be found on the Department's website: <http://www.dmp.wa.gov.au/14390.aspx>

Key projects/issues considered by MIAC during 2013-14:

- Endorsement of the following codes of practice and guidance material:
  - Refuge chambers in underground mines – Guideline;
  - Tailings storage facilities in Western Australia – Code of Practice;
  - Prevention of fires in underground mines – Guideline;
  - Accident and incident reporting – Guideline;
  - Mobile autonomous mining systems – Guideline; and
  - Management of noise in Western Australian mining operations – Guideline.
- Continued consideration of the implications of a proposed resources safety act, codes of practice and Western Australian legislation, including a detailed review of mining specific regulations.

### **Workshops with Professor Malcolm Sparrow**

On 19 - 22 May 2014, Professor Malcolm Sparrow ran workshops for the Department of Mines and Petroleum's safety and environmental regulatory staff. Professor Sparrow is Professor of the Practice of Public Management at Harvard's John F. Kennedy School of Government, and a leading international expert in regulatory and enforcement strategy, security and risk control.

The lectures started with a discussion on recent developments in regulatory and supervisory strategies, and the challenges of effective risk-control. The challenges of organising around risks or "problems", rather than functions and processes, were highlighted.

Professor Sparrow also examined the possible meanings of "risk-based regulation" and explored the relationship between reforms of law (e.g. red-tape reduction) and reforms of regulatory strategy and practice.

The Department's Executive and members of the Mining Industry Advisory Committee and Ministerial Advisory Panel on Safety Legislation Reform also attended a presentation by Professor Sparrow on 'A balanced agenda for risk control: better business and better protection at the same time'.

### **Crane Registration Forum**

On 22 July 2013, Resources Safety ran a joint forum with WorkSafe for about 45 designers, verifiers and crane suppliers to communicate concerns identified during a Departmental review of investigations, which recorded 104 incidents involving cranes from August 2012 to August 2013.

Individual meetings were also held with mines site representatives, crane designers and suppliers, to discuss problems found on specific and general applications.

Guidance for crane designers and suppliers were updated and expanded to encompass these emerging issues. Mines Safety Bulletin No. 105 was released in July 2013 to address under-design of bridge and gantry crane end connections.

### **2013 Exploration Safety Roadshow**

Resources Safety's sixth annual Exploration Safety Roadshow was held in Kalgoorlie and Perth on 24 and 26 July 2013, with 200 people registered to attend.

Presentations covered potential changes to occupational safety and health legislation in Western Australia and what this might mean for the exploration industry, mineral exploration's safety performance in 2012-13, recent exploration incidents, and the findings from some recently completed exploration audits.

Workshops focused on hazards facing the exploration industry. Topics included the management of fibrous minerals (such as asbestos), licensing and other requirements for high risk work on exploration sites, the dangers of homemade and improvised tools, and how stored energy can be a hidden hazard. The emphasis throughout the program was on using a risk management approach to control the working environment, and the need for competent people, fit-for-purpose equipment and safe work practices.

Following the roadshow, Resources Safety conducted an intensive program of audits of exploration activities, ranging from exploration headquarters to explorations camps and drill sites.

### **2013 Mines Safety Roadshow**

The ninth annual Mines Safety Roadshow series was presented in October 2013, to coincide with Safe Work Australia Month. The roadshow program seeks to raise awareness and share solutions, rather than provide professional development training. Through roadshow workshops and interactive sessions, Resources Safety can also consult with a broad cross-section of industry on topics relevant to managing risks on Western Australian mining operations, as well as supporting the development of resilient safety cultures.

At the 2013 roadshow series, the main aims were to:

- support the development of a resilient safety culture by encouraging operators to change their focus from "who" to "how" in site investigations;
- update industry on fatality findings and learnings, proposed legislative changes and safety performance;
- explore the hazards associated with mobile equipment, stored energy and working hours;
- promote the use of higher-order controls in the hierarchy of controls.

About 600 industry representatives attended, the largest total attendance since the Roadshow series began in 2005. Venues covered the Midwest (Geraldton), Pilbara (Port Hedland, Karratha, Newman), South West (Bunbury) and Goldfields (Kalgoorlie) regions, as well as Perth.

### **Statutory Review of Dangerous Goods Legislation**

An external consultant was engaged to undertake a statutory five-year review of the effectiveness and efficiency of the *Dangerous Goods Safety Act 2004*.

The consultant liaised directly with major stakeholder associations, indirectly by letter to licence holders, and via the Departmental website with other stakeholder organisations and the general public. The review was completed in June 2014.

### **On-road enforcement regime for Dangerous Goods Safety**

The Dangerous Goods Safety branch continued its multiagency approach to on-road enforcement in 2013-14. Dangerous Goods inspectors collaborate with WA Police and Main Roads WA to urge dangerous goods transport companies to adhere to high transport safety standards. The branch exceeded its 2013-14 targets for on road enforcement.

### **Fireworks Contractor Prosecuted**

In 2013-14, the Dangerous Goods Safety branch took action against a major WA based fireworks contractor. This resulted in the contractor being fined more than \$30,000 for poor record keeping in

relation to transport and storage, and failure to minimise risk. The contractor involved is working with the branch to remedy and improve its operating practices.

### **Baldivis Explosives Reserve**

Planning has commenced to relocate the Baldivis Explosives Reserve to the Shire of Harvey by December 2016. It is expected that both reserves will be open concurrently to allow site users a seamless relocation.

### **Competent Authorities Panel for Dangerous Goods Transport**

A representative from the Resources Safety Division has chaired the Competent Authorities Panel for Dangerous Goods Transport (CAP) since May 2013. CAP comprises regulators from each Australian jurisdiction, as well as observers from the National Transport Commission, Australian Maritime Safety Authority, Civil Aviation Safety Authority and the Australasian Fire and Emergency Service Authorities Council.

CAP has been active in the assessment of industry-specific proposals regarding dangerous goods activities across Australia. This has involved reviewing the Australian Dangerous Goods Code and endorsing a determination to accept plastic aerosols packaging and custom-made corrosives tanks from Europe. Currently, the Resources Safety representative on CAP is leading a working group consulting with registered training organisations in examining the unit of competency for dangerous goods driver licensing.