



# Guide for explosives and security sensitive dangerous substances safety management plan

March 2014

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**Disclaimer**

This publication may contain work health and safety and workers compensation information. It may include some of your obligations under the various legislations that WorkCover NSW administers. To ensure you comply with your legal obligations you must refer to the appropriate legislation.

Information on the latest laws can be checked by visiting the NSW legislation website [legislation.nsw.gov.au](http://legislation.nsw.gov.au)

This publication does not represent a comprehensive statement of the law as it applies to particular problems or to individuals or as a substitute for legal advice. You should seek independent legal advice if you need assistance on the application of the law to your situation.

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## Introduction

The NSW *Explosives Regulation 2013* (the Regulation) provides for a safety management plan, if required by WorkCover NSW, by a licence applicant or licence holder. The safety management plan describes the risk management procedures that are proposed to be implemented in order to manage the hazards and risks to safety associated with the activities that are authorised by the types of explosives licences.

This guide has been prepared to assist licence applicants and licence holders to meet the minimum obligations of the Regulation in respect to the preparation of a safety management plan and provides a template to assist in that purpose. Licence holders may choose to complete this template or create their own ensuring that at least the requirements outlined in this guide are met.

Clause 37 (1) of the Regulation provides that WorkCover needs to be satisfied that when granting a licence that the applicant is eligible, the safety management plan is suitable for managing the hazards and risks; the applicant has appropriate facilities, systems and procedures in place and any additional eligibility requirements applicable to the licence concerned have been satisfied.

Clause 37 (2) of the Regulation provides that if WorkCover is not satisfied that a safety management plan submitted by the applicant is appropriate, WorkCover may require the applicant to amend the safety management plan. Additionally, if the safety management plan does not appropriately manage the hazards and risks to safety, WorkCover may refuse to grant or renew a licence to the applicant.

## Who requires a safety management plan

WorkCover has determined that Licence to manufacture holders must have a safety management plan in place. However, there are some Licence to manufacture holders who already have adequate safety systems as governed under another WorkCover approval, Code of Practice, or as per NSW Trade and Investment requirements. As such, WorkCover has determined that all Licence to manufacture holders and applicants require a safety management plan as set out in this guide, except those licence holders or applicants who:

- are a Major Hazard Facility as they must have a completed safety case in force, or
- only operate a mobile processing unit (MPU), as safety risks are addressed as per the Australian Explosives Industry Safety Group (AEISG) Code of Practice for MPUs, or
- are located on a mine site and who have satisfied the current NSW Trade and Investment management and/or control plan requirements. Contact NSW Trade and Investment for more information on safety requirements on a mine site.

## Definitions

**Explosive precursors** include security sensitive dangerous substances such as ammonium nitrate solids, emulsions, suspensions and gels.

**Security sensitive dangerous substance** mean any of the following (but does not include ammonium nitrate solutions):

- ammonium nitrate that is not a dangerous good of Class 1
- ammonium nitrate emulsions, suspensions or gels containing greater than 45 per cent ammonium nitrate
- ammonium nitrate mixtures containing greater than 45 per cent ammonium nitrate.

**Nominated responsible person** means a natural person nominated by a corporation who is at least 18 years old, involved in the management of the corporation, holds a security clearance that is in force, and has satisfied the corporation that they have the relevant knowledge, experience and qualifications to supervise the activities authorised under the licence.

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## *Explosives Regulation 2013*

Clause 36 (1) of the Regulation states that a safety management plan describes the risk management procedures that are proposed to be implemented by the applicant, in order to manage the hazards and risks to safety associated with the activities that are authorised by the licence.

Clause 36 (2) of the Regulation provides that a safety management plan must contain:

- a description of the process by which the applicant proposes to handle explosives or explosive precursors in accordance with the licence
- an assessment of the risks that may arise from such handling
- a description of the measures being implemented to manage the risks associated with the handling of explosives
- such information as required by WorkCover.

Clause 22 of the Regulation states that a licence to manufacture explosives and/or security sensitive dangerous substance authorises the licence holder to carry out the following activities:

- if the licence relates to a mobile processing unit – transporting the explosive precursors specified in the licence in the mobile processing unit to the premises or location at which explosives are to be manufactured and manufacturing explosives at those premises using the mobile processing unit
- if the licence does not relate to a mobile processing unit – manufacturing, at the premises specified in the licence, the explosives or explosive precursors specified in the licence
- supplying or receiving (including importing and exporting), at the premises (if any) specified in the licence, the explosives or explosive precursors specified in the licence
- purchasing or possessing explosives or explosive precursors for the purpose of the manufacture of other explosives or explosive precursors under the licence
- possessing explosives or explosive precursors manufactured under the licence
- possessing explosives or explosive precursors for the purpose of the disposal of the explosives or explosive precursors under the licence.
- if premises are specified in the licence – storing the explosives or explosive precursors at the premises.

Clause 72 of the Regulation provides that a licence holder must ensure:

- the requirements of, and procedures specified in, the licence holder's safety management plan are observed
- all activities under the licence are undertaken in accordance with that safety management plan.

Note: Failure to comply with Clause 72 may attract a penalty of up to 250 penalty units.

The safety management plan must demonstrate that safety risks have been adequately assessed and provide assurance that the measures will minimise those risks.

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## Further information

Licences and security clearances issued by WorkCover are subject to conditions as specified in the publication *General explosive licence and security clearance conditions under the NSW Explosives Act and Regulation* (catalogue no. WC04685). Failure by a licence or security clearance holder to comply with a condition set out in this document may result in the suspension or cancellation of the licence or security clearance.

The Regulation also refers to the following documents with which the licence or security clearance holder must also comply:

- *AS2187: Explosives: Storage, transport and use*
- *AS4326: The storage and handling of oxidizing agents*
- *The Australian explosives code (titled Australian code for the transport of explosives by road and rail)*
- *The Australian dangerous goods code.*

The Regulation requires that all activities involving the handling of explosives and explosive precursors are carried out in accordance with these documents. In the event of any conflict in requirements, the Regulation prevails over the Standards and Codes.

This guide should be read in conjunction with the following WorkCover publications:

- *Guide for secure and safe handling of explosives and security sensitive dangerous substances* (catalogue no. WC04676)
- *Security plan for storage and handling of explosives and security sensitive dangerous substances* (catalogue no. WC04688).

Queries should be directed to the WorkCover Customer Service Centre on **13 10 50** or the WorkCover website at [workcover.nsw.gov.au](http://workcover.nsw.gov.au)

## Safety management plan template

The following details are the minimum requirements and must be included in a safety management plan:

General	
1. Applicant details	Provide the full name of the person making the application in the case of an individual application. For corporations, the corporation name must be provided.
2. Residential/business address	Enter the residential (individual application) or business address (corporation application). <b>This address cannot be a PO Box.</b>
3. Mailing address	The mailing address may be a PO Box.
4. The address where the explosives or security sensitive dangerous substance are manufactured	The address must be a physical address.
5. Telephone, fax and email contact	Individual or corporation contact telephone number(s), preferably both land line and mobile numbers. Fax number including the area code and email address.
6. Name of nominated responsible person(s), position held, and contact details (telephone number and email)	

## Safety process

1. How have the risks from the explosives proposed to be manufactured (and stored) under the license been assessed?

Consider:

- Risk assessment conducted, process adopted and key outcomes.
- People involved
- Risk methodology
- Use of qualitative risk matrices
- Properties of the explosives or explosive precursors considered and actions to take in relation to storage and handling
- Key outcomes

2. How will change management be achieved?

Consider:

- Changes to manufacturing processes – prompt for a revision of the risk assessment
- Starting products supply – where change occurs
- Change to products manufactured – properties, handling and storage
- Change to equipment – compatibility with explosive products
- Changes introduced by repairs or maintenance
- Audit periodically to prompt a revised risk assessment
- Training of staff in hazard identification
- Reporting mechanisms

3. What actions have been taken to minimise risks to people, property and the environment?

Consider:

- Procedures and work instructions to prevent or mitigate identified risks
- High temperature and high pressure cut-offs
- Technological measures to hold product on site, no run off, automatic shut downs
- Start up and shutdown procedures
- Use of control hierarchies
- Quality control of manufactured product
- Safety of staff working alone



<p>4. What inspection, calibration and preventative maintenance measures are in place to ensure that safety-related structures and equipment remain operational and effective?</p>	<p>Consider:</p> <ul style="list-style-type: none"> <li>• Regular maintenance schedules, contracts and visual inspections</li> <li>• Regular audits</li> <li>• Testing of materials to ensure degradation/deterioration is not occurring</li> <li>• Housekeeping maintained</li> <li>• Procedures for reporting maintenance needs and assigning responsibility</li> </ul>
<p>5. What actions are taken to ensure that any person handling explosives or explosive precursors is competent to do so?</p>	<p>Consider:</p> <ul style="list-style-type: none"> <li>• Training and experience</li> <li>• Licensing</li> <li>• On-going training</li> <li>• Induction procedures</li> <li>• Audits</li> <li>• Mentoring system</li> <li>• Supervision</li> </ul>
<p>6. How are incompatible explosives, explosive precursors and dangerous goods kept adequately separated?</p>	<p>Consider:</p> <ul style="list-style-type: none"> <li>• Storage conditions, separate magazines</li> <li>• Training and competencies of staff</li> <li>• Procedures follow AS 2187.1 requirements</li> <li>• Proper labelling</li> <li>• Housekeeping</li> <li>• Packing procedures for transport</li> </ul>

<p><b>7. How is explosive waste monitored and managed?</b></p>	<p>Consider:</p> <ul style="list-style-type: none"> <li>• EPA licensing and conditions</li> <li>• Storage capacity</li> <li>• Compatibility of separate waste streams</li> <li>• Explosive classification of waste and appropriate storage and security</li> <li>• Chemical measures to reduce hazard classification of waste</li> <li>• Disposal methods</li> </ul>
<p><b>8. What risk assessments and procedures are in place to manage spills of explosives and hazardous chemicals?</b></p>	<p>Consider:</p> <ul style="list-style-type: none"> <li>• Loading and unloading procedures for trucks, tanks and mobile processing units</li> <li>• Spill kits</li> <li>• Personal Protective Equipment</li> <li>• Safe shutdown procedures</li> <li>• Maintenance of emergency equipment</li> <li>• Training</li> </ul>
<p><b>9. What measures are in place to manage the safety of new products and techniques in research and development?</b></p>	<p>Consider:</p> <ul style="list-style-type: none"> <li>• Classification and labelling of new products</li> <li>• Unexpected behaviour of new products</li> <li>• Safety of staff working alone</li> <li>• Upholding storage and security obligations in a research environment</li> <li>• Management oversight and approval of experimental programs</li> </ul>

## Records of manufacture

1. How are records of manufactured products received, dispatched and reconciled?

Consider:

- Records maintained
- Persons responsible for product dispatch
- Procedures
- Sales or supply book entries maintained

**Note:** Please refer to WorkCover publication *Security plan for storage and handling of explosives and security sensitive dangerous substances* (catalogue no. WC04688)

2. What checks or actions ensure explosives or explosive precursors are supplied only to authorised persons?

Consider:

- Policy/procedure for supply
- Security clearances for responsible staff
- Persons supplied with explosives and explosive precursors are licensed (and copies of licences obtained).

3. Records detailing to whom explosives or explosive precursors are supplied and their authority to possess, and details of the explosives or explosive precursors

Consider:

- Capture of information (eg copies of licences)
- Procedures
- Persons responsible
- Sale or supply book maintained

4. How would an unexplained loss of explosive or explosive precursors be investigated and reported?

Consider:

- Procedures use of forms
- Investigation
- Internal/external reporting (eg notifying management and/or Police)
- Person responsible

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