

Electrical Safety Office

# Guide to Safety Management Systems

for Prescribed Electricity Entities under the *Electrical Safety Act 2002*

Version 4 (September 2010)



Tomorrow's Queensland:  
strong, green, smart, healthy and fair

**Toward**   
Tomorrow's Queensland

 **Queensland**  
Government

## **Purpose**

**A safety management system contributes to the elimination of the human cost of death, injury and destruction caused by electricity through:**

- **preventing persons from being killed or injured by electricity; and**
- **preventing property from being destroyed or damaged by electricity.**

**Note: This guide provides general information. Material is distributed as an information source only and should not be treated as advice on the circumstances in any particular case. The material in the guide does not have any legal status.**

**Version 4 (September 2010)  
Uncontrolled when printed**

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## 1 Introduction

### 1.1 Structure of this guide

This guide is organised by the following sections:

- details of the guide
- general safety management systems
- guiding principles
- documentation for a safety management system
- auditing
- appendices for meanings of terms, legislative requirements, legislation extracts, documentation checklist, and references.

### 1.2 Important meanings in this guide

The meaning of words and phrases used in this guide are defined in *Appendix A – Meaning of terms*.

Note:

The term 'hazard' is often used as an identifier of potential sources of risk. However in the practical application of risk management principles, it is the risk itself that must be addressed. The *AS/NZS ISO 31000:2009 Risk Management Standard* (the Standard) refers to the identification of risk, while the term hazard is used in Workplace Health and Safety and Electrical Safety legislation in the same context. Similarly, 'risk control' is referred to in the Standard as 'risk treatment'.

Therefore, throughout the document changes have been made to reflect the Standard except where legislation is quoted directly. There is no conflict with the objective of the legislation

See also section 3.3 of this guide.

### 1.3 What is a guide?

In legislative terms, the requirements in an Act or Regulation are mandatory. In contrast, a guide is a document which is designed to assist obligation holders to comply with the requirements of an Act or Regulation.

A guide provides recommendations or options which are non-mandatory, has no legal status, and provides general information only. An obligation holder always retains responsibility for discharging their obligations.

### 1.4 What is this guide about?

In particular, this guide supports the requirements of the *Electrical Safety Act 2002*, as amended, (the Act) and the *Electrical Safety Regulation 2002*, as amended, (the Regulation) by giving practical guidance for meeting legislative obligations.

It gives prescribed electricity entities (network owners and operators) and other stakeholders options and recommendations for applying the legislative requirements under the Act and Regulation for implementing and maintaining safety management systems for their works<sup>1</sup>. The legislative scope of the guide is limited to:

- Safety Management Systems for Electricity Entities, Part 5, s66 and s67 of the Act,
- Safety Management Systems, Part 9, s165 and s166 of the Regulation,
- Accredited Auditors, Part 10, ss129-136 of the Act, and
- Accredited Auditors, Part 10, ss167-169 of the Regulation.

Whilst safety management systems are only mandatory for prescribed electricity entities<sup>2</sup>, other entities and obligation holders such as electrical contractors and generation entities are strongly encouraged to adopt safety management systems under the Act and Regulation for managing electrical risk. This guide may assist any organisation for developing and implementing safety management systems.

### **1.5 Consultation to devise this guide.**

Extensive consultation with employee representatives of industrial organisations, the Electrical Safety Board, Workplace Health and Safety Queensland, the prescribed electricity entities, and other interested parties occurred throughout the deliberations and development of this guide. This process involved a combination of face to face meetings coupled with written feedback from parties who provided input.

The development of concepts central to the form of a safety management system for electrical safety and the auditing required for verification drew upon the works of Dr Andrew Hopkins, Australian National University. He outlined his conclusions in his book entitled “Lessons from Longford: the Esso gas plant explosion”<sup>3</sup>

Dr Hopkin’s book examines the findings of the Royal Commission into the Esso gas plant explosion which occurred at Longford, Victoria in September 1998. He was an expert witness at the Commission hearings. His conclusions about the Longford incident are built upon his previous studies into the BHP Moura coal mine explosion, 7 August 1994. That explosion killed 11 miners.

Further, the development of this guide has drawn from the work of the National Occupational Health and Safety Commission. Refer to *Appendix F-References* for further information on the National OHS Strategy.

### **1.6 Relationship with the National Occupational Health and Safety (OHS) Strategy**

On 24 May 2002, the Workplace Relations Ministers’ Council (WRMC) endorsed the

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<sup>1</sup> Refer to Appendix A – ‘Works’ The source of this definition is section 25 of the Act.

<sup>2</sup> The prescribed entities are detailed in Schedule 6 of the Regulation. These entities are currently: Country Energy, Energex Ltd, Ergon Energy Corporation Ltd, Powerlink Queensland, Rio Tinto Aluminium Ltd, QR Network Pty, Ltd and Airtrain Citylink Ltd

<sup>3</sup> See Appendix F (9) for details.

release of “The National OHS Strategy 2002–2012”. The Strategy is a landmark development signifying the commitment of all Australian governments, as well as the Australian Chamber of Commerce and Industry and the Australian Council of Trade Unions, to work cooperatively on national priorities for improving OHS and to achieve minimum national targets for reducing the incidence of workplace deaths and injuries.

The Strategy was developed by the members of the former National Occupational Health and Safety Commission (NOHSC), a Commonwealth statutory authority with tripartite membership of government, employer and employee representatives. It reflects a national agreement to share responsibility for continuously improving Australia’s performance in work-related health and safety.

In November 2009, SafeWork Australia began operating as an independent statutory agency with the primary responsibility to improve OHS and workers’ compensation arrangements across Australia. SafeWork Australia replaces the Australian Safety & Compensation Council which in turn replaced NOHSC.

The safety management system defined in the Act, the Regulations and this guide is consistent with, and support the principles of the National OHS Strategy.

This guide takes the National OHS Strategy one step further by improving outcomes for public health and safety as well as property damage caused by electrical risks. This aligns with the purpose of the Act.

## **1.7 Summary of legislative requirements for electricity entities**

The Department of Industrial Relations (the Department) administers the Act and Regulation through the Electrical Safety Office. All electricity entities have an electrical safety obligation to ensure that their works are both:

- electrically safe; and
- operated in a way that is electrically safe<sup>4</sup>.

To discharge these obligations, an entity must comply with the Act and Regulation.<sup>5</sup> Failure to discharge these obligations carries substantial maximum penalties up to \$1,000,000 where a breach causes multiple deaths.

Further, if it is established that a corporation has breached the legislation, individuals within the organisation can also be held personally liable. Provisions for this are found in the Act, Part 13 “Proceedings and Offences”, especially s199 “Executive Officer Offence Provision”.

Prescribed electricity entities must also have, and give effect to, a safety management system for the entity<sup>6</sup>.

When an entity gives effect to, or modifies, their safety management system they

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<sup>4</sup> Refer to the Act, s29

<sup>5</sup> The Act, Regulation and codes of practice do not prescribe all that an entity must do to discharge their obligations, s41 and s45 of the Act.

<sup>6</sup> Refer to the Act s67 and the Regulation s165.

must give the Department:

- a current copy of the documentation that describes the safety management system; and
- a certificate from an accredited auditor verifying that the system has been assessed and validated to ensure compliance with Part 5 of the Act, and Part 9 of the Regulation.

Under s67 of the Act, there are substantial penalties of up to \$200,000 for non-compliance with this requirement.

More detailed requirements for developing, updating, lodging, assessing and verifying safety management systems are outlined in Part 9 of the Regulation. *Section 6* of this guide provides more details on auditing.

Also, refer to Appendix C - *The Electrical Safety Act 2002* - Extracts and Appendix D - *The Electrical Safety Regulation 2002*- Extracts for the legislative requirements.

## 2 Understanding Safety Management Systems

This section is intended to describe the meaning of the term 'safety management system' to support the characteristics as described in the Act. It begins with a generic description and then narrows that to suit the requirements of the electrical safety legislation.

It is important to understand the concept of a safety management system under this guide before documentation can be developed to describe the system

### 2.1 Why does the legislation mandate safety management systems

Historically the number of deaths and injuries caused by electricity in Queensland was unacceptable. This was recognised by the Queensland Ombudsman's Workplace Electrocution Project and a series of independent ministerial reviews and taskforces conducted into electrical safety in Queensland.

The Act introduced a new legislative framework that is directed at eliminating the human cost to individuals, families and the community of death, injury and destruction caused by electricity<sup>7</sup>. Accordingly the framework's purpose is to prevent persons from being killed or injured, and property from being destroyed or damaged by electricity.

To meet its purpose, the Act establishes community standards through making regulations, ministerial notices and codes of practice about achieving electrical safety. In the case of prescribed entities, it introduces integrated safety management systems for managing the risks of electricity entities works.

The introduction of safety management systems for electricity entities was recommended by the Electrical Safety Taskforce which investigated and made

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<sup>7</sup> Refer to Appendix F - Electrical Safety Act 2002.

recommendations on the manner in which electrical incidents can be prevented and investigated.<sup>8</sup>

Further, the Taskforce identified the increasing difficulty for regulators to introduce a legislative framework that specifies the outcomes to be achieved in situations where the risks vary widely according to the working environment. This is particularly the case in large organisations with a diverse asset base to maintain, such as electricity entities.

## **2.2 Who benefits from a safety management system?**

A safety management system will benefit all persons affected by the electrical safety of an entity's works. These include the entity, employees, contractors, families, businesses, and the community generally.

## **2.3 What is a safety management system?**

The purpose of the Act is to eliminate the human cost of death, injury and destruction caused by electricity. The purpose of a documented safety management system for electricity entity works is to support the Act by ensuring that electricity works are electrically safe.

In general terms, a safety management system is a system focused on improving safety performance by combining and integrating planning, implementation and review processes with the management of organisational and consultative arrangements.<sup>9</sup> These systems may apply to the activities of an enterprise as a whole, or they may target specific areas.

A safety management system is not simply the existence of forms, processes, policies or documents that describe various safety aspects of an organisation. It must give effect to, or exercise, the content of the safety documentation in an on-going and managed way across an organisation that improves safety outcomes.

A key to improving safety outcomes is the linking of identified risks to performance criteria which are used to guide and focus the effort and resources of an organisation. Performance criteria should quantify the risks and define the proactive and positive steps being taken by an organisation to reduce or eliminate them. This approach is in direct contrast to the traditional use of post-event statistical data such as 'lost time injury' (LTI) data which is a measurement of failure. The value of failure mode measurements is as feedback and using them for input into planning processes that identify and prioritise areas for corrective action.

This guide only applies to safety management systems targeted at improving the electrical safety performance of prescribed electricity entity works as mandated by the Act.

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<sup>8</sup> Refer to Appendix F - Electrical Safety Bill 2002 Explanatory Notes.

<sup>9</sup> Refer to Appendix F – Occupational Health and Safety Systems – Review of their Effectiveness and Occupational Health and Safety Management Systems – Information Paper.

Under the Act, a safety management system must be described in a written document that:

- comprehensively details the hazards and risks associated with the design, construction, operation and maintenance of an entity's works;
- details how the entity will manage these hazards and risks to ensure that it discharges its electrical safety obligation; and
- details what the entity will do to ensure that contractors for the entity will comply with the requirements of the system.

This document must be devised in consultation with persons broadly representative of industrial organisations of employees whose members are employees of the entity, and with principle or primary contractors for the entity.

A safety management system must comply with the requirements in the Regulation for safety management systems in how it is developed, updated, lodged, audited and validated.

## **2.4 Are safety management systems different to other safety systems?**

Across Australia, there are a number of names used interchangeably for safety systems. Some examples are: safety case, safety plan, safety management plan, and safety management scheme. These terms may or may not refer to the same meaning as a safety management system as outlined in this guide. In order to avoid confusion, it is suggested that the interchangeable use of these terms should be avoided when discussing safety management systems.

This guide deliberately adopts the term 'safety management system' to mean a system which is exercised by a systematic and continuous improvement approach which uses feedback to manage and improve electrical safety outcomes. This system sets, implements and modifies benchmarks and standards for electrical safety.

A system which relies only on documenting procedures and does not provide mechanisms for ensuring safety performance criteria are identified and achieved is not a safety management system as recommended by this guide. Nor is one that does not have processes for ensuring continuous monitoring of outputs and feedback, nor mechanisms to ensure continuous change to improve future performance.

Operating a safety management system closely aligns with an integrated 'systems management' approach based on systems theory as it incorporates the components of a system.<sup>10</sup> and links high level strategic elements with operational level elements.<sup>11</sup>

## **2.5 Further details on safety management systems.**

For further information on safety management systems within Australia see references 6, 7, and 9 in *Appendix F- References*.

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<sup>10</sup> Refer to Appendix F – 'Macquarie Dictionary', 'Information Systems: A Management Perspective' and 'Management Concepts and Applications'

<sup>11</sup> Refer to Appendix F – 'Occupational Health and Safety Management Systems – Information Paper'

### **3 Guiding Principles for Safety Management Systems**

In developing a safety management system, the following principles should be taken into account and documented to show how they are to be met.

#### **3.1 Principle 1: Compliance with electrical safety legislation**

A safety management system must ensure compliance with the Act and Regulations. This means the system must comply with:

- all requirements for safety management systems;
- all relevant electrical safety obligations;
- all relevant safety and technical requirements for works of electricity entities; and
- all relevant safety, technical and licensing requirements for performing electrical work.

When an entity is determining its level of regulatory compliance, it should keep in mind that relationships exist between many regulatory requirements.

For example, ss.131, 136, and 139 of the Regulation prescribe requirements for the performance of works under their service conditions and physical environments, and minimum clearances for conductors. Environmental and other physical conditions such as the use of machinery around a power line may require heights above minimum statutory clearance.

#### **3.2 Principle 2: Commitment to a preventative approach**

Safer environments are provided by adopting a preventative approach that::

- engages key safety stakeholders through communication and consultation; and
- measures progress of activities that contribute to the elimination or reduction of the effects of risks before an injury or incident occurs.

This may gain organisational commitment where it is supported by the overall management system used by the organisation. This means that the system:

- links strategic, management and operational components together to form an integrated systems management approach; and
- provides foundations for allocating accountabilities, responsibilities and resources from senior management through to all employees to enable decisions to be made on electrical safety matters.

#### **3.3 Principle 3: Commitment to a risk management approach**

A safety management system should apply an appropriate risk management process. Workplace Health and Safety Queensland promote the five basic steps in the risk management process found in s27A of the Workplace Health and Safety Act 1995:

- identify the hazards
- assess the risks
- decide on control measures
- implement the control measures
- monitor and review.

Further information on the risk management process can be found in the Electrical Safety Codes of Practice 2010 made under the Act, particularly the Electrical Safety Code of Practice 2010 – Risk Management.

In November 2009, Standards Australia released a new risk management standard Australian Standard *AS/NZS ISO 31000 'Risk Management – Principles and Guidelines'*. This Standard may also provide guidance.

In this Standard, all references to 'hazard and controlling risk' have been changed to 'risk' and 'treatment of risk'.

Therefore, throughout the document changes have been made to reflect the new Standard except where legislation is quoted directly. There is no conflict with the objective of the legislation.

### **3.4 Principle 4: Promoting workforce commitment**

Improved electrical safety performance will be achieved by a 'whole-of- organisation' approach. Senior executive management should effectively lead and foster an organisational commitment and culture towards safety which is supported by the safety management system.

An entity's workforce, including designers, call centre operators, supervisors, contractors and field staff should have a clear safety direction which can be, and is practically implemented. This can be achieved through exercising organisational practices and processes which are documented in the safety management system.

The system and the organisation should promote and reflect a conscious management decision to comply or exceed legislated standards by devising, documenting, implementing, auditing and reviewing these processes for effectiveness

### **3.5 Principle 5: Accountability for outcomes**

It is recommended that entities make safety performance results available to the public and stakeholders. For example, publishing results on an entity's website can be one way. For prescribed entities that are government owned corporations (GOC's), this is consistent with objectives of corporatisation that sets out to improve economic performance and social accountability. This provides the general public and the entity's workforce with information about how an entity is managing the risks they may be exposed to by working, living or being near the entity's works.

### 3.6 Principle 6: Use of other legislation and standards

As well as legislation and guidance material specific to electrical safety, other legislation, industry standards and Australian Standards may inform the development and content of a safety management system.

Examples are:

- the Workplace Health and Safety Codes of Practice made under the WHS Act;
- the *Workplace Health and Safety Risk Management Code of Practice 2007* made under the *Workplace Health and Safety Act 1995* provides information about how to identify a variety of general workplace risks and how to manage exposure to these risks;
- Energy Networks Association of Australia (ENA)<sup>12</sup> guidelines and standards such as '*NENS 01-2001 National Electricity Safety Code*', '*NENS 02-2006 National Electricity Network Operator and Service Provider Safety Assurance Guidelines*';
- *AS/NZS 4804 ('Occupational Health and Safety Management Systems – general guidelines on principles, systems and supporting techniques')*, which provides organisations with a general guide on how to implement, develop, and/or improve a safety management system. *AS/NZS 4801* complements this guide by providing guidance on establishing auditable criteria that may be used by an auditor for the purpose of auditing a safety management system.

An entity may choose to implement and maintain a safety management system which either:

- complies entirely with the standards above, or
- complies with those parts of the standards that align with the Act and Regulation.

However, compliance with these standards only, for example *AS/NZS 4801 ('Occupational Health and Safety Management Systems – specification with guidelines for use')* and *AS/NZS 4804 ('Occupational Health and Safety Management Systems – general guidelines on principles, systems and supporting techniques')*, does **NOT** provide an entity with full compliance to the broader safety management system requirements under the Act and Regulation (refer to Principle 1).

These standards may however, provide a basis for components that can be built into a compliant safety management system. Refer to *Appendix B -Comparison - legislative requirements and Australian Standards for safety management systems for a cross-reference of requirements.*

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<sup>12</sup> Formerly known as the 'Electricity Supply Association of Australia' and also the 'Energy Supply Association of Australia.

## 4 Elements of Safety Management System documentation

This section will focus on the documentation that describes a safety management system, in contrast to the safety management system itself.

### 4.1 Objective of a safety management system

To develop an effective safety management system, the objective of the system should be understood. This is found in two provisions in the Act s66 (b) and (c).

A safety management system is one of the ways in which the Act achieves its purpose of:

- preventing persons from being killed or injured by electricity; and
- preventing property from being destroyed or damaged by electricity.

Further, an entity must give effect to a safety management system which details how the entity is to manage risks to ensure its obligation is discharged. An entity can only do this if the outcome of the system is that its works are electrically safe and operated in a way that is electrically safe.

As such, ensuring electrical safety should be the primary objective and reference point for measuring the success of a safety management system.<sup>13</sup>

### 4.2 Mandatory elements

Section 66 of the Act and section 166 of the Regulation prescribe the mandatory requirements for what a safety management system is and what must be documented. These include:

- details of the systems safety objectives
- details the risks
- systems and procedures for meeting these objectives
- performance criteria
- ways of maintaining adherence to the performance criteria
- annual auditing by an accredited auditor at the expense of the entity
- submission of an annual audit plan to the chief executive
- a certificate of the annual audit from an accredited auditor.

### 4.3 Non-mandatory elements

It is recommended that the documentation should include clear links and cross references between:

- the Act, Regulation and Codes of Practice, and competencies and procedures; and
- risks and performance criteria.

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<sup>13</sup> Refer to Appendix F 'Information Systems: A Management Perspective'

A matrix or indexing system may be used to navigate a reader through the system and link related legislation, policies, work practices, and performance criteria.

For example, the system may trace the requirements of section 166 of the Regulation on vegetation management to the documented risks and the performance criteria that the entity has identified.

The navigation should be bi-directional, and be able to trace legislative requirements through to safety performance criteria and visa versa.

For example, both an asset manager who is planning for vegetation clearing works, and a worker who is being assessed for competency as a vegetation management worker, should be able to clearly see how their outcomes and procedures link back to risks, safety performance criteria and legislative requirements.

An option to demonstrate commitment to the principles in this guide is to describe in the documentation how the principles are to be met.

#### **4.3.1 Declaration of Commitment**

It is also recommended that a statutory declaration from the chief executive officer of the entity should be lodged at the same time as the certificate from the accredited auditor. This would state that the appropriate resources would be committed to achieving the objectives and performance criteria of the safety management system over the ensuing 12 months

#### **4.4 What is the scope of the system?**

The scope of a safety management system is described by the requirements of the Act and Regulation about what a safety management system is and what it must contain. Documentation should clearly describe the scope in terms of what is in, and what is out of scope. These include:

- the risks associated with the design, construction, operation and maintenance of an entities works;
- how the entity will manage these risks to ensure that it discharges its electrical safety obligation to ensure that:
  - all people, including the entity's workforce and general public, that may contact or be in proximity to, the entities assets are electrically safe, and
  - all property in the vicinity of an asset, including the asset itself being electrically safe; and
- what the entity will do to ensure that contractors for the entity comply with the requirements of the system.

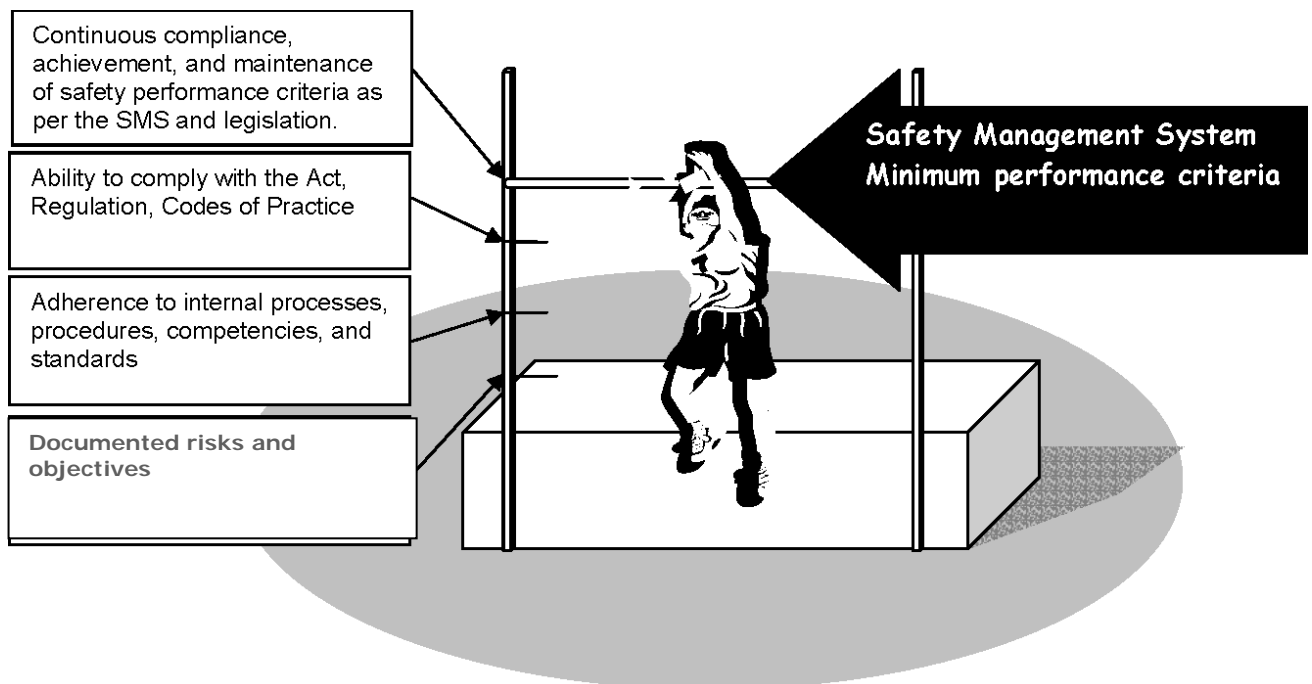
Note that where an entity owns and operates electrical equipment that is not deemed to be works, or is subject to exemptions under the Act, the documentation should clearly identify those components as being out of scope of the system.

#### 4.5 What is the nature of the system?

The Act and its requirements for safety management systems are focused on improving electrical safety performance outcomes by setting, implementing and modifying benchmarks and standards for electrical safety.

In line with this, one of the key features of a safety management system should be a focus on the outcome and not the processes or procedures. (Refer to Figure 1 'The outcome focus of safety management systems')

Figure 1 'The outcome focus of safety management systems'



One of the ways of achieving this focus is through implementing effective processes and systems driven by defined performance criteria which are documented, linked, effectively implemented, reviewed, refined, and improved by feedback processes. This approach involves describing the system in terms of components of inputs, business processes, output and feedback, and providing traceable, verifiable, and auditable links that describe interactions between the entity's systems.

An example of this approach is provided below in Figure 2 'Example - A basic safety management system with feedback'.



Figure 2 'Example - A basic safety management system with feedback'

Note. other approaches may be used to provide the required safety outcomes.

## 4.6 Existing documentation

Typically, most organisations have developed large amounts of safety related documentation including but not limited to these formats:

- policies
- procedures
- design standards and drawings • operating standards and drawings
- work practices
- forms for identifying risks
- forms for reporting defects and near misses
- forms for injuries and accidents
- standing instructions.

Much of this may be considered components of a safety management system, and indeed may already be known as a safety management system within an organisation. However, one of the key features of the legislation is the way that the objectives are to be achieved, and the performance criteria are to be met and maintained. This can only be done by understanding and exercising the relationships between the documentation and the actual physical business processes that are meant to implement the documentation.

For example, if the safety related documentation mentioned above is not documented in a way that describes how it works together as a system, then it would be considered that although the entity may have separate components of a safety management system, it does not have a complete safety management system.

## 4.7 Required documentation

An understanding of the relationships between the safety related documentation and the day to day business processes is necessary, and the safety management system documentation should describe how the documentation listed above relates to the business processes it serves.

In other words, the safety management system documentation should provide an overall 'top down' view of how the entity manages its electrical safety obligations by referencing the appropriate policies, procedures, standards, work practices, etc. This can be thought of as a framework that describes the relationships discussed above.

Note that it is not expected that an entity re-write and re-format all of its existing documentation into a single document. Rather, the safety management system documentation should provide a reference to those documents

The safety management system documentation will be required to provide an entry point for accredited auditors to commence the process of auditing. Legislation compliance audits will be required that test the compliance of the safety management system documentation against the legislative requirements of Part 5 of the Act, and Part 9 of the Regulation. Performance audits that test the physical business processes against the requirements of the safety documentation of an entity will also be required. Refer to section 6, Auditing, for more details.

It is recommended that safety management system documentation describe the relationships between the systems components of inputs, processes, outputs, and the feedback to keep it improving and maintained.

#### **4.7.1 Inputs**

Some examples of inputs as shown in Figure 2 'Example - A basic safety management system with feedback', include but are not limited to:

- electrical safety legislation
- serious electrical incidents
- dangerous electrical events • other network incidents such as
  - network related shocks
  - manual re-close events after a lockout that, soon after re-closing, trip again
  - number of LV and HV switching sheets that have not been completed without incident
  - LV wires that have been found under statutory heights
  - events that have resulted in undue electrical risk as a consequence of exceeding the thermal capacity of electrical equipment.
- industry benchmarks and standards
- industry wide, or national lost time injury frequency rates and fatality rates
- enforcement history taken against the entity
- public feedback on safety concerns
- coronial inquiry recommendations
- any other sources relevant to the needs of the organisation.

#### **4.7.2 Outputs and performance**

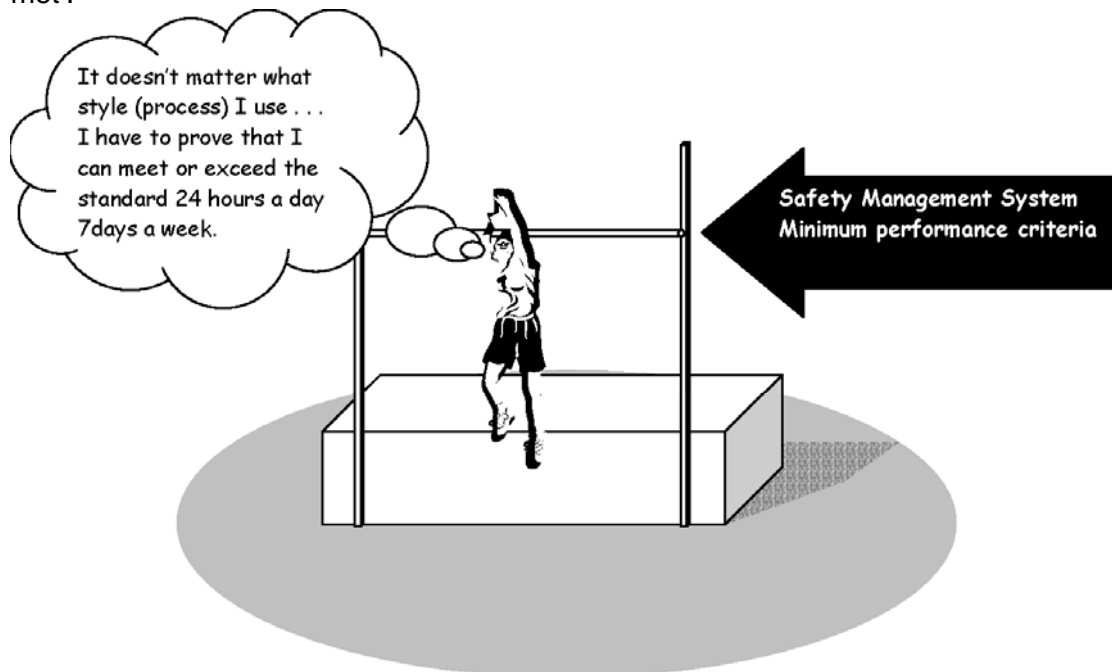
Specific measures of performance provide a way of measuring and controlling a system's outputs. A safety management system should provide performance criteria for meeting its purpose.

Safety management system documentation should detail how an entity will discharge their electrical safety obligation. The standard imposed by these obligations is that all works are to be electrically safe and are operated in a way that is electrically safe throughout their lifetime. Refer to Figure 3 'Life cycle safety outcomes' which illustrates this relationship between the lifecycle of assets, and the parties affected by the risks.

Electrical Safety Standard Required			
Life cycle of the network	Parties affected		
	The network in relation to property damage	Work on and around the network (including contractors and third parties)	Access to the network by the public
Design			
Construct			
Operate	<b>Free from Electrical Risk</b>		
Maintain			
Retire			

Figure 3 'Life cycle safety outcomes'

As the system's purpose is electrical safety, not compliance with a process, this standard should be met at all times. Refer to Figure 4 'The performance criteria to be met'.



#### **4.7.3 Selection of performance criteria**

An entity should select its own performance criteria for its safety management system. This could be based upon those areas of risk that the entity identifies and prioritises according to the level of risk that it is willing to manage.

An entity must draw from the Act and Regulation for minimum legislative requirements that must be complied with. Performance criteria should be designed to align and support these requirements.

For example, criteria may be based on the requirements of section 131 of the Regulation which states performance and other requirements that apply to the works of an entity.

Where an entity changes its performance criteria from one audit period to another, it should describe the changes and any relationships between the performance criteria so that shifts in the performance data can be reconciled.

#### **4.7.4 Risk reduction criteria**

A preventative approach to safety is fundamental to safer environments. Criteria may also target risk reduction activities. Risk reduction performance criteria are measures of the progress of activities that contribute to eliminating or reducing the effects of risks before they occur. These may reflect areas that represent risk and expose the entity to non compliance with their obligations under the Act and Regulations. Risk reduction criteria can be contrasted to reactive measures.

For example, performance measures of incidents and lost time injuries reflect failures within an organisation, not the activities to reduce them before they occur. They are not risk reduction targets, but instead, are measures of failures.

#### **4.7.5 Tools for performance criteria**

Performance scorecards or similar methods may provide a tool for describing, linking, and reporting on safety performance criteria that has been targeted and achieved. As well, the general performance of the entity towards eliminating electrical risk can be measured.

An option is a type of scorecard that links risks and risk reduction activities as illustrated in Table 1. Example of performance scorecard. This table is an example only, and is not exhaustive. It could be used as a tool in assisting entities to develop and aim for performance measures which are fit for purpose.

Other performance tools may also provide a useful basis for linking risks and performance. This may include standard industry practices for risk and consequence identification, prioritisation and management.

Table 1. Example of performance scorecard

**RISK REDUCTION ACTIVITIES**  
**Performance Criteria and Results**

<b>RISKS IDENTIFIED</b>	<b>Risk Assessment</b>	<b>Activity to manage risk</b>	<b>Performance Indicator</b>	<b>Current Performance</b>	<b>Target for Year</b>
<p><i>Vegetation</i> Electric shock or property damage:</p> <p>Wires brought down to dangerous heights by vegetation interference.</p>	0.001% (probability of occurrence 1:1100,000)	<ul style="list-style-type: none"> <li>• Clear / trim vegetation to standard profile.</li> <li>• Replace Overhead Wires with Covered Conductor.</li> <li>• Replace Overhead Wires with Underground cable.</li> <li>• Overhead Wire Friendly tree Planting Programme.</li> </ul>	<p>Km of cleared vegetation.</p> <p>Km of OH replaced.</p> <p>Km of OH replaced.</p> <p>No. of local Councils planting 'Overhead wire friendly' trees.</p> <p>No. of Local Councils now replacing hazardous trees with 'Overhead wire friendly trees'.</p>	<p>4,500 km</p> <p>190 km</p> <p>50 km</p> <p>5 km</p> <p>5 km</p>	<p>4,500 km</p> <p>200 km</p> <p>55 km</p> <p>5 km</p> <p>5 km</p>

See comment under section 3.3 regarding 'hazards' and 'risks'

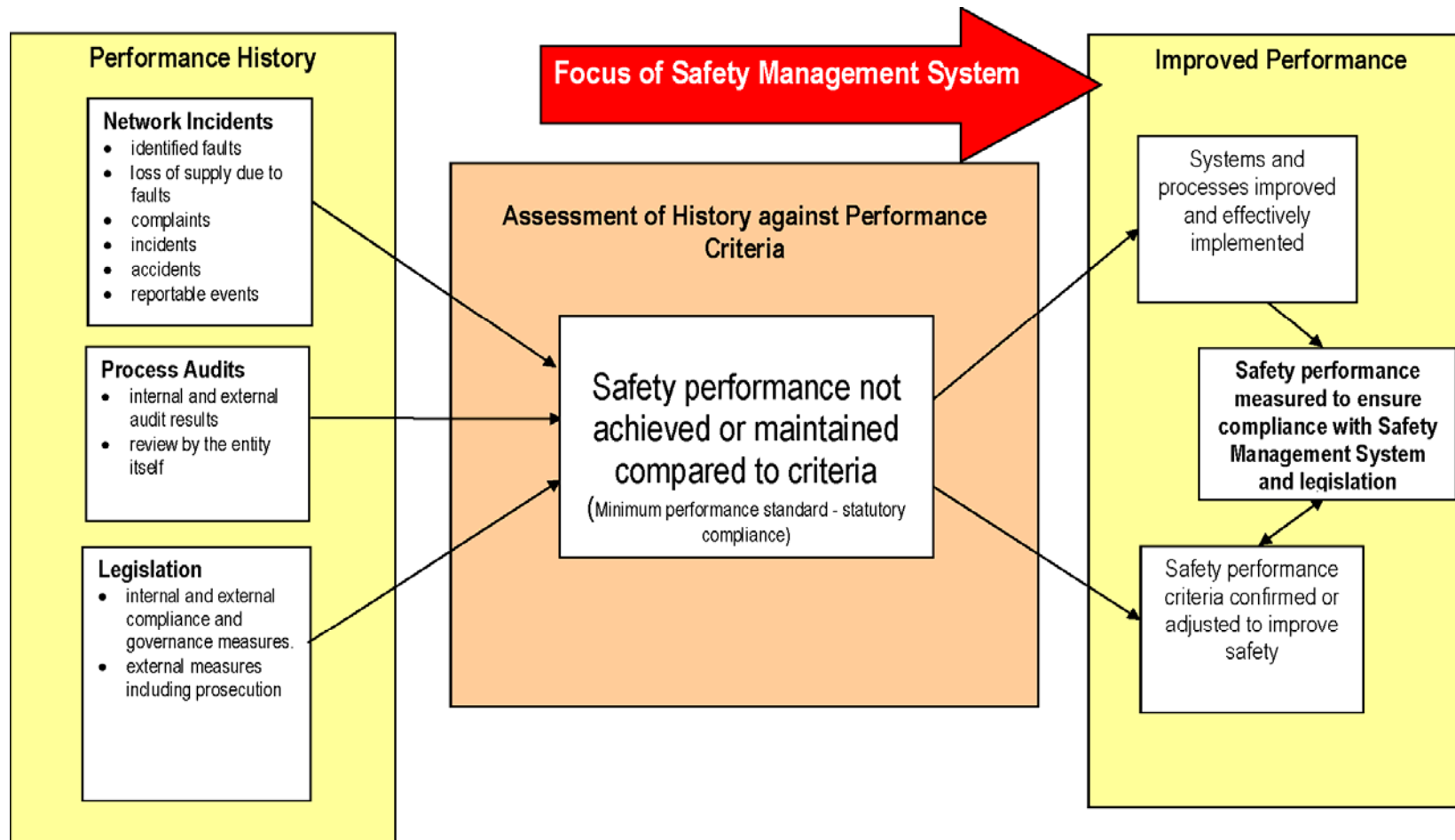
#### **4.7.6 Feedback**

To achieve and continually meet safety criteria, feedback from outputs to inputs provides a way of evaluating electrical safety performance and enabling effective modification of the system. Feedback can inform the process by linking:

- inputs that influence management processes
- business management processes
- outputs such as the results of safety performance.

Figure 6 'Practical example of how incidents and actions (performance history) should trigger the process to improve safety outcomes' provides an example of how different outputs fed through the feedback process can lead to improved safety performance.

Mechanisms for feedback, review and improvement of safety outcomes should be clearly identified and documented. Further, all resulting initiatives to improve the safety outcome should be documented, reviewed and traceable.



## 5 Lodgement

Prescribed electricity entities are required to lodge a certificate from an accredited auditor to the Department.

Other entities and obligation holders such as electrical contractors and generation entities wishing to use this guide to develop a safety management system are not required under the *Electrical Safety Act 2002* to submit their safety management documentation to the Department.

For legislative requirements refer to:

*Appendix C - The Electrical Safety Act 2002 - Extracts and Appendix D - The Electrical Safety Regulation 2002- Extracts*

## 6 Auditing

### 6.1 Purpose of audits

The Regulation requires each prescribed electricity entity to implement a safety management system and provide a certificate from an accredited auditor to the Chief Executive of the Department. The certificate indicates that the prescribed entity's safety management system has been assessed and validated to ensure that the system and the outcomes of the system complies with relevant sections of the *Electrical Safety Act 2002*, and the *Electrical Safety Regulation 2002*.

The role of the accredited auditor is to provide an independent (third party) audit that verifies or otherwise that the safety management system complies with Part 5 of the Act and Part 9 of the Regulation.

Only persons appointed by the Department as a safety management system 'accredited auditor' are authorised to certify a prescribed entity's safety management system. Persons who make application to become an accredited auditor must demonstrate the necessary expertise/experience or the person has satisfactorily finished training approved by the chief executive.

Note: A reference to a person as an accredited auditor generally includes a reference to a corporation as well as an individual.

### 6.2 Type of audits

An accredited auditor is required to conduct the following types of audits.

#### 6.2.1 Initial legislation compliance audit

The purpose of this audit is to ensure that when the safety management system is first put into effect, the safety management system has been assessed and validated against the electrical safety legislation.

The accredited auditor will be required to verify and certify in the approved form:

- whether the safety management system document complies with the electrical safety legislation
- whether the entity is giving effect to the safety management system. For example, evidence of the entity's internal audit plan to initiate implementation of the safety management system.

#### 6.2.2 Modification compliance audit

The purpose of a modifications compliance audit is to verify that modifications to the safety management system align with the electrical safety legislation.

The accredited auditor will be required to verify and certify, in the approved form, that modifications have been assessed and validated against the Electrical Safety Legislation.

A modification is any addition and/or alteration to the document which changes the characteristics described in Part 5 s66 of the *Electrical Safety Act 2002* and/or Part 9

s166 of the *Electrical Safety Regulation 2002*. For example, document format changes or spelling corrections are not expected to be audited.

### **6.2.3 Safety management system performance audit**

The purpose of an annual safety management system performance audit is to verify:

- continued legislation compliance of the safety management system documentation;
- that the safety management system is achieving its objectives;
- that the safety management system is adhering to and maintaining the performance criteria;
- that the auditing system of the prescribed entity's safety management system is effective;
- that any modification compliance audits have been done when necessary;
- that the prescribed entity is giving effect to the safety management system.

An annual safety management system performance audit must be completed within 12 months of the issue of the certificate for the initial legislation compliance audit and for each subsequent year.

The accredited auditor must state in a certificate the current level of compliance of the prescribed electricity entity with its safety management system.

## **6.3 Engagement of an accredited auditor**

A prescribed electricity entity is responsible to arrange engagement of an accredited auditor to audit their safety management system. A register of accredited auditors will be available from the Department.

## **6.4 Accreditation process**

### **6.4.1 Appointment as an accredited auditor**

Applicants for accreditation are required to meet specific requirements before they are appointed as an accredited auditor under the Act and Regulation. These requirements are stated in accreditation requirements below.

### **6.4.2 Assessment of accreditation application**

An assessment panel will be arranged for the purpose of determining suitability of an application. The assessment panel may request an interview with the applicant for the purpose of clarifying issues. For example, the applicant's understanding of safety management systems as they apply to prescribed electricity entities may be assessed.

The assessment panel may also request additional information.

### **6.4.3 Registration of accredited auditor**

The Department is responsible for maintaining a register of appointed accredited auditors which will be made accessible from the Department's website. Prescribed electricity entities must choose persons from the register to carry out the required audits in accordance with published criteria and conditions.

## 6.5 Process for appointment

### 6.5.1 Application

Application for appointment as an accredited auditor requires the following:

- acquire application form from the Department's website
- lodgement of completed application form with the applicable fee
- application assessment by the department
- registration of accredited auditor by the department.

For the term of the appointment, please refer to the Regulation, Part 10.

Note that a minimum allowance of 8 weeks is required for the processing of an application.

### 6.5.2 Fees

Under Schedule 7 of the Regulation, the application fee for appointment as an accredited auditor is a fixed fee of \$300.30.

Note: In event that an application is not approved or is withdrawn, the appointment administration part of the fixed fee, currently \$180.20, is refunded.

Renewal fees are applicable, currently \$180.20. All fees are subject to change.

## 6.6 Accreditation requirements

### 6.6.1 Conditions of accreditation

Conditions for application and appointment of accredited auditors are provided in Part 10 ss122– 136 of the *Electrical Safety Act 2002* and Part 10 ss167 -169 of the *Electrical Safety Regulation 2002* as well as in this document.

1. The Department reserves the right to add or alter conditions of office.
2. Individuals who are accredited auditors must maintain their capabilities, skills, knowledge and abilities in relation to their work as an accredited auditor for the duration of their appointment.
3. A corporation which seeks appointment as an accredited auditor must nominate a director of the corporation as the nominee. The nominee of a corporation appointed as an accredited auditor will be responsible for the assessment and validation of the prescribed entity's safety management system.
4. Corporations who are accredited auditors must maintain their capabilities, skills, knowledge and ensure the nominee representatives, associated with the assessment and validation of the safety management systems, have skills, knowledge and abilities maintained. This includes ensuring the nominee representatives work jointly according to the instrument of appointment in each of their areas of expertise.
5. Nominees are to ensure only nominee representatives identified in the instrument of appointment are to assess and validate a safety management system.

6. In circumstances where the accredited auditor is a corporation then the certificate submitted must be signed by the nominee.
7. An accredited auditor must advise the chief executive of any changes that may affect their ability to act in the capacity of an accredited auditor including changes to insurance and nominee representatives.
8. In the event of a nominee representative no longer participates (utilises their expertise) in the assessment and validation of a safety management system audit then the nominee is to suspend work as an accredited auditor. Work is suspended until such time the nominee submits an application to the chief executive outlining the change along with skills, knowledge and ability of an alternative nominee representative and the chief executive approves such changes.
9. Appropriate types and levels of insurance for the work to be performed must be maintained for the duration of their appointment. All work conducted by the accredited auditor must be within the scope and level of the insurance held.
10. When an accredited auditor is required to state the level of compliance following a safety management system performance audit, the certificate must state the level of compliance of the following areas:
  - continued legislation compliance of the safety management system documentation;
  - that the safety management system is achieving its objectives;
  - that the safety management system is adhering to and maintaining the performance criteria; and
  - that the auditing system of the prescribed entity's safety management system is effective; and
  - that the prescribed entity is giving effect to the safety management system.
11. An accredited auditor must advise the chief executive of changes in work-related contact details, including address, telephone or email contact details, within 14 days of the change.
12. In accordance with section 132 of the *Electrical Safety Act 2002*, an accredited auditor must produce their identity card on request when exercising a power or performing a function of an accredited auditor.
13. The chief executive may suspend or revoke an accredited auditor's appointment at any time. A person whose interests are affected by this decision may apply for a review of the decision or appeal the decision in accordance with Part 12 of the *Electrical Safety Act 2002*.
14. In accordance with section 136 of the *Electrical Safety Act 2002*, a person who ceases to be an accredited auditor must return the person's identity card to the chief executive within 21 days of ceasing to be an accredited auditor.

15. When carrying out audit related functions accredited auditors are at all times subject to the reasonable direction of the Chief Executive Officer (or delegate) of the Department.
16. Accredited auditors must audit to the requirements of a safety management system provided in Part 5 ss66 -67 of the Electrical Safety Act 2002 and Part 9 ss165 –166 of the Electrical Safety Regulation 2002.
17. Accredited auditors, the nominee, and all personnel associated with the assessment and validation of the safety management system are to treat all findings and reports made during audit activities as confidential between the Department, the prescribed electricity entity and the auditor.
18. Fees payable for audit services are a commercial transaction between the accredited auditor and the prescribed entity and not a matter for the Department.
19. Obtaining work as an accredited auditor is subject to market forces associated with the competitive market place. Accredited auditors are responsible for their own marketing decisions
20. Accredited auditors, the nominee, and nominee representatives associated with the assessment and validation of the safety management system must not be directly involved with the development, implementation or management of the system under review. This condition does not limit the accredited auditor's ability provide information on relevant legislation, standards or codes of practice.
21. Accredited auditors, the nominee, and nominee representatives associated with the assessment and validation of the safety management system must not be an employee of a prescribed electricity entity responsible for the implementation of a safety management system.
22. The auditor or the employer of an accredited auditor must make and keep a copy of the report of inspection for at least 5 years.
23. An accredited auditor may be subject to monitoring and review by the chief executive during the performance and/or following an audit to ensure compliance with accreditation terms and conditions.
24. The accredited auditor must give the Chief Executive Officer (or delegate) of the Department any information which the Chief Executive (or delegate) reasonably requires regarding a safety management system audit performed by that auditor.

## **6.7 Department expectations of the auditor**

Accredited auditors are responsible for being ethical, open minded, diplomatic, observant, perceptive, versatile, tenacious, decisive and self reliant. These personal attributes that accredited auditors should possess enable them to act in accordance with the following principles:

- ethical conduct
- fair representation
- due professional care
- independence
- evidence-based approach

Accredited auditors are responsible for their understanding and application of the following areas:

- Audit principles, procedures and techniques: to enable the auditor to apply those appropriate to different audits and ensure that audits are conducted in a consistent and systematic manner.
- Management system and reference documents: to enable the auditor to comprehend the scope of the audit and apply audit criteria.
- Organisational situations: to enable the auditor to comprehend the organisation's operational context.
- Applicable laws, regulations and other requirements relevant to the discipline: to enable the auditor to work within, and be aware of, the requirements that apply to the organization being audited.

## 6.8 Technical correctness

Accredited auditors are responsible to ensure that findings are evaluated against appropriate legislation, standards, codes and guidance material and the technical correctness of their findings.

## 6.9 Code of conduct

Accredited auditors should become familiar with the Department of Justice and Attorney-General Code of Conduct.

The complete code is published on the Internet at [justice.qld.gov.au/\\_data/assets/pdf\\_file/0003/24897/codeofconduct.pdf](http://justice.qld.gov.au/_data/assets/pdf_file/0003/24897/codeofconduct.pdf)

The Department reserves the right to amend or augment the conditions in this Code of Conduct on an ongoing basis.

The Code of Conduct has been developed in accordance with the principles of ethical and responsible decision making, and embodies the following values:

### **Principle 1: Respect for the Law and the System of Government**

Uphold the laws of Queensland and Australia and carry out decisions and policies faithfully and impartially. Not be a party to their breach, evasion or subversion.

An accredited auditor will be required to make independent assessments based on objective evidence

### **Principle 2: Respect for persons**

Treat contractors, members of the public and persons they work with or have dealings with in an honest and fair manner with courtesy and sensitivity. Respect the rights, entitlements, duties and obligations of all stakeholders in the Department. The

Code covers areas such as confidentiality of personal information, concern for safety and welfare, dealing with aggressive, threatening or abusive behaviour, procedural fairness and dress standards.

**Principle 3: Integrity**

Not to improperly use powers or position, or allow them to be improperly used. Ensure that any conflicts that may arise between personal interests and official duties are resolved in favour of the public interest. Disclose fraud, corruption and maladministration of which they become aware. This requirement includes handling conflicts of interest, acceptance of benefits, disclosure of official information, commenting publicly on government policy or administration, communicating with Ministers and other Members of Parliament, using political or other influences to secure advantage or cause disadvantage, party-political, professional and trade union activity, intellectual property and use of communication and information devices.

**Principle 4: Diligence**

Exercise a duty of care, be attentive and always strive for the highest standard of performance. Keep up to date with legislative and policy changes affecting their work, document their decisions and keep accurate records. The areas covered by this principle include diligence, care and attention, attendance, use of alcohol and other drugs, self development and provision of advice

**Principle 5: Economy and efficiency**

Ensure that public resources are not wasted, abused, or used improperly or extravagantly.

**6.10 Applicant capabilities (Section 2 of the Application Form)**

An applicant must demonstrate their capability to perform the role as accredited auditor by submitting a capability statement. The statement must detail systems capability, personnel, attributes criteria and standards as outlined below.

Note, supporting documentation is to include copies of educational qualifications, training course certificates, curriculum vitae, audit logs, audit reports and any other information specified in this document. Copies of supporting documentation are to be signed by a Commissioner of Declaration or a Justice of the Peace or equivalent.

**6.11 Systems capability (Section 2A of the Application Form)**

The applicant must detail the systems they have in place which can assess and validate a safety management system associated with the design, construction, operation and maintenance of the entity's works.

**6.12 Attributes criteria (Section 2B of the Application Form)**

The applicant must detail attributes of the individual, nominee or a combination of the nominee and personnel who will be associated with the assessment and validation of

the safety management system. Attributes must be demonstrated using all of the following criteria:

- 1 A sound understanding and knowledge of outcome based legislation. Specifically, the application and implementation of the Act and the Regulation, Codes of Practice issued under the Act, and this guide.
- 2 A sound understanding and knowledge of safety management systems.
- 3 High level understanding of, and experience in using the proposed auditing methods and techniques used to evaluate the effectiveness of a safety management system.
- 4 Ability to carry out an objective review of an entity's safety management system based on the legislative requirements of the electrical safety legislation.
- 5 The ability to interpret and assess information as part of a gap analysis with an entity's safety management system electrical safety outcomes, and requirements of electrical safety legislation.
- 6 An ability to report the audit findings in a manner that indicates whether the safety management system complies with the electrical safety legislation.
- 7 The demonstration of interpersonal skills for the audit process including written and verbal communication skills suitable for interacting with all levels of an entity.
- 8 Sound knowledge and understanding or ability to gain sound knowledge and understanding of the business of the entity being audited.

### **6.13 Standards (Section 2C of the Application Form)**

#### **6.13.1 Education/professional registration (Section 2C of the Application Form)**

The individual, nominee or a combination of the nominee and personnel who will be associated with the assessment and validation of the safety management system must meet all of the following criteria:

- 1 Demonstrate registration as an occupational health and safety auditor with a certification body recognised by JAS-ANZ, or demonstrate the equivalent.
- 2 Possess qualifications relevant to safety management systems. For example—Occupational Health & Safety, Risk management, or equivalent.
- 3 Demonstrate maintenance of registration of the relevant professional body of personnel engaged as part of the audit team.

#### **6.13.2 Work experience (Section 2C of the Application Form)**

The individual, nominee or a combination of the nominee and personnel who will be associated with the assessment and validation of the safety management system must have completed the equivalent of five (5) years full-time experience involving:

1. A role that has provided strategic advice on safety focussed management systems or risk management systems, or
2. A role that has implemented strategic safety focussed management systems or risk management systems;

and at least one of the following which has been associated with electricity networks;

3. A technical, professional or management role that was responsible for the design, construction, operation and maintenance of entities works, or
4. A technical, professional or management role that directly affected electrical safety

#### 6.14 Privacy statement (Section 7 of the Application Form)

The Department of Justice and Attorney-General respects your privacy and is committed to protecting your personal information. The information provided by the applicant is for the purpose of applying for appointment as an accredited auditor and monitoring compliance under the *Electrical Safety Act 2002*, and will be managed within the Information Privacy Principles contained in the *Information Privacy Act 2009*. The Department may be required to disclose your personal information to other government agencies, entities or persons as may be required by law or that are outsourced functions. This information may also be used for statistical research, information provision and evaluation of our services.

Further information on the Information Privacy Act 2009 is available at [www.privacy.qld.gov.au](http://www.privacy.qld.gov.au).

#### 6.15 Contact and lodgement information (Section 6 of the Application Form)

All enquires should be directed to:

Equipment Safety and Licensing  
Electrical Safety Office  
Department of Justice and Attorney-General  
LMB 2234 Brisbane Qld 4001

Telephone: 1300 650 662  
Facsimile: 07 3406 3808  
Web: [www.jag.qld.gov.au](http://www.jag.qld.gov.au)

#### 6.16 Checklist for applicants

	Application requirement	Included? Y/N
1	Completion of Application form: <i>Application for Appointment as an Accredited Auditor</i>	
2	Completion of capability statement including:	
	a Systems Capability	
	b Attributes Criteria	
	c Standards • Education/Professional registration • Work experience	
3	2 Passport sized photographs for individual as applicant or applicant's nominee/s	
4	Evidence of proof of identity and document declaration form completed.	
5	Specimen signatures of the individual or the nominee	
6	Cheque for prescribed fee.	

## 7 Appendix A – Meaning of terms

The following terms used within this guide are generally based upon meanings as provided within the Act and Regulation, and/or the Macquarie Dictionary.

**‘Consult’** has the same meaning as defined within the enterprise bargaining ESI Agreements T&D, and means the timely exchange of relevant information and ideas in such a manner that the parties have the actual and genuine opportunity to influence the outcome.

**‘Devise’** means to order or arrange; think out; plan; contrive; invent

**‘Electric line’**<sup>14</sup> means a wire or conductor or associated equipment used for transmitting, transforming, or supplying electricity at a voltage greater than extra low voltage.

However, an ‘electric line’ does not include –

- a wire or conductor directly used in converting electricity into another form of energy; or
- a wire or conductor within the internal structure of a building.

Examples of things that are not electric lines:

- o a cord for connecting an air conditioning unit, computer, lamp, television or toaster to a supply of electricity.
- a power or lighting circuit within a building

**‘Electrical risk’**<sup>15</sup> means in relation to a person, the risk to the person of death, shock or injury caused directly by electricity or originating from electricity; or

In relation to property, the risk to the property of:

- damage caused by a cathodic protection system; or
- loss or damage caused directly by electricity or originating from electricity.

**‘Electrical safety’**<sup>16</sup> means for a person or property that they are electrically safe. For more information, see definitions for electrically safe, electrical risk, and free from electrical risk.

**‘Electrically safe’**<sup>17</sup> means:

- for a person or property, that the person or property is free from electrical risk; and
- for electrical equipment or an electrical installation, that all persons and property are free from electrical risk from the equipment or installation; and
- for the way electrical equipment, an electrical installation or the works of an electricity entity are operated or used, that all persons and property are free from electrical risk from the operation or use of the equipment, installation or works; and
- for the way electrical work is performed, that all persons are free from electrical

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<sup>14</sup> Refer to section 16 of the Act

<sup>15</sup> Refer to section 10(1) of the Act

<sup>16</sup> <sup>16</sup> Refer to section 10(3) of the Act

<sup>17</sup> Refer to section 10(2) of the Act

- risk from the performance of the work; and
- for the way a business or undertaking is conducted, that all persons are free from electrical risk from the conduct of the business or undertaking; and
- for the way electrical equipment or an electrical installation is installed or repaired, that all persons are free from electrical risk from the installing or repairing of the equipment or installation.

**‘Free from electrical risk’**,<sup>18</sup> for a person or property, means that the electrical risk to the person or property is as low as reasonably achievable, in having regard to:

- likelihood of harm; and
- likely severity of harm.

**‘Must’** means that a mandatory requirement exists in the Act or Regulation.

**‘Person’** includes a reference to a corporation as well as to an individual. (Acts Interpretation Act 1954 s32D)

**‘Risk’**<sup>19</sup> is the likelihood and consequence of injury or harm occurring.

**‘Service Provider’** means a person or business who undertakes work on an electricity network (NENS ESAA Safety Assurance Guidelines)

**‘Should’** means that a requirement is not mandatory and is recommended only.

**‘Worker’** – as defined in section 22 of the Act

**‘Workforce’** means workers and service providers/contractors.

**‘Works’**<sup>20</sup> of an electricity entity, means the electrical equipment, and electric line associated equipment, controlled or operated by the entity to generate, transform, transmit or supply electricity.

- Examples of works of an entity – an overhead distribution system of a distribution entity, including wires, transformers and switches, for QR - the traction and signalling systems, and locomotive electrical equipment primarily used for converting electrical energy into kinetic energy.
- Example of what is not works of an electricity entity – appliances or fixed wiring in an electricity entity’s workshop or offices.

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<sup>18</sup> Refer to section 10(4) of the Act

<sup>19</sup> Refer to the Codes of Practice made under the *Electrical Safety Act 2002*

<sup>20</sup> Refer to section 25 of the Act.

## 8 Appendix B - Comparison - legislative requirements and Australian Standards for safety management systems

Table 2 can be used as a cross reference to determine where a requirement is listed in detail.

It lists the key requirements as documented in the Act and Regulation, and provides a key reference to Australian Standards documents to obtain an understanding of how the requirement may be met. In many cases, there may be more than one location in those documents that a requirement is described in more detail.

<b>Table 2. Legislative Requirements and Reference to AS/NZS 4801 and 4804</b>				<b>Cross reference</b>	
	<b>Electrical Safety Act</b>	<b>Electrical Safety Regulation</b>	<b>Brief description of requirements</b>	<b>AS/NZS 4801</b>	<b>AS/NZ 4804</b>
1.	66 (a)	No Reference	Consult with employer representatives and principal contractors	4.4.3	4.3.2.4
2.	66 (b)	166 (3)	Details the risks	4.4.6	4.3.4
3.	66 (c)	166 (3)	How to manage the risks	4.4.6	4.3.4
4.	66 (d)	No Reference	How to ensure contractor compliance	4.4.1	4.3.2
5.	66 (e)	166(1)	Compliance with ESR	4.2	4.1.4
6.	66 (e)	166 (6)	How to develop and update	4.1 4.6	4.1.3 4.5.2
7.	66 (e)	166 (3)	Lodge with JAG	No Reference	No Reference
8.	66 (e)	166 (3), (4), (5), (6)	Assessment by accredited auditors	4.5.4	4.4.3
9.	No reference	166 (2)	Details of objectives	4.3.3	4.2.4
10.	No reference	166 (2)	Systems, procedures to achieve objectives	4.3.4	4.3.2
11.	No reference	166 (2)	Performance criteria to be met	4.2 4.3.3	4.1.4 4.2.5
12.	No reference	166 (2)	Ways to adhere to performance criteria	4.3.4	4.2.6
13.	66 (e)	166 (3)	Lodge a copy of the SMS with a certificate from an accredited auditor.	No Reference	No Reference

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<b>Table 2. Legislative Requirements and Reference to AS/NZS 4801 and 4804</b>				<b>Cross reference</b>	
	<b>Electrical Safety Act</b>	<b>Electrical Safety Regulation</b>	<b>Brief description of requirements</b>	<b>AS/NZS 4801</b>	<b>AS/NZS 4804</b>
14.	No Reference	166 (4)	Lodge a copy of any information required by JAG to ensure compliance with the Act	No Reference	No Reference
15.	No Reference	166 (5)	Auditing by an accredited auditor once per year	4.5.4	4.4.3
16.	No Reference	166 (5)	Lodge an annual audit plan with JAG	No Reference	No Reference
17.	No Reference	166 (5)	Lodge a compliance certificate after each annual audit with JAG	No Reference	No Reference
18.	No Reference	166 (5)	Lodge any further information required by JAG after annual audit	No Reference	No Reference
19.	66(e)	166 (6)	Provide for modification of the SMS	4.6	4.4.3
20.	No Reference	166 (6)	Provide for additional auditing as required by JAG	No Reference	No Reference
21.	129(1)	167	Auditor Accreditation	No Reference	No Reference
<b>The items below are recommendations only under this guide.</b>					
22.	No Reference	No Reference	Described in terms of a control system incorporating feedback	No Reference	No Reference
23.	No Reference	No Reference	Statutory Declaration signed by CEO with auditor's certificate	No Reference	No Reference
24.	No Reference	No Reference	Safety Performance Scorecard	No Reference	No Reference
25.	No Reference	No Reference	Publication of safety performance into public domain	No Reference	No Reference
26.	No Reference	No Reference	Legislative Cross Reference Register	No Reference	No Reference
27.	No Reference	No Reference	Maximum of 2 consecutive years by same auditor	No Reference	No Reference
28.	No Reference	No Reference	Ways to implement principles in this guide	No Reference	No Reference

## 9 Appendix C - The *Electrical Safety Act 2002* - Extracts

### 9.1 Part 5—Safety management systems for electricity entities

#### Section 66 Definitions for pt 5

*In this part—*

**'prescribed electricity entity'** means an electricity entity, other than a generation entity, declared under a regulation to be a prescribed electricity entity for this part.

**'safety management system'**, for a prescribed electricity entity, means a written document having the following characteristics—

(a) the document is devised by the entity in consultation with—

- (i) persons who are broadly representative of industrial organisations of employees whose members are employees of the entity; and
- (ii) principal or primary contractors with the entity for the performance of electrical and other work for the entity;

(b) the document details the hazards<sup>21</sup> and risks associated with the design, construction, operation and maintenance of the entity's works;

(c) the document details how the electricity entity is to manage the hazards and risks to ensure that its electrical safety obligation is properly discharged;

(d) the document details what the entity will do to ensure that contractors for the performance of electrical and other work for the entity comply with the requirements of the safety management system;

(e) the document otherwise complies with requirements prescribed under a regulation for safety management systems, including requirements for the following—

- (i) how the document is to be developed and periodically updated;
- (ii) lodging the document with the chief executive;
- (iii) initial and subsequent periodic assessments and validations of the document by accredited auditors to ensure that the document comprehensively identifies and addresses the hazards and risks associated with the design, construction, operation and maintenance of the entity's works.

#### Section 67 Obligation of prescribed electricity entity

A prescribed electricity entity **must** have, and **must** give effect to, a safety management system for the entity.

Maximum penalty—400 penalty units.

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<sup>21</sup> See section 3.3 for comment on 'hazards and risks'

## 10 Appendix D - The *Electrical Safety Regulation 2002*- Extracts

### 9.2 Part 9—Safety management systems

#### Division 1—Prescribed electricity entities

##### **Section 165 Prescribed electricity entities**

*For part 5 of the Act, an electricity entity is a prescribed electricity entity if—*

*(a) it is named in schedule 6, part 1; or*

*(b) both of the following apply—*

*(i) it is named in schedule 6, part 2;*

*(ii) 3 months have elapsed after the entity's name was included in schedule 6, part 2; or*

*(c) both of the following apply—*

*(i) it is not named in schedule 6, part 1 or 2 but is an electricity entity under the Act, schedule 2, definition electricity entity, paragraph (c);*

*(ii) 3 months have elapsed since the later of the following—*

*(A) the entity first becoming an electricity entity;*

*(B) the commencement of this paragraph*

#### Division 2—Requirements for safety management systems

##### **Section 166 Safety management system requirements**

*(1) This section prescribes requirements for safety management systems*

*(2) A safety management system **must** contain details of the following—*

*(a) the system's safety objectives;*

*(b) the systems and procedures by which the objectives are to be achieved;*

*(d) the way in which adherence to the performance criteria is to be maintained.*

*(3) When a prescribed electricity entity's safety management system is first put into effect or is modified, the entity **must** give the chief executive—*

*(a) a copy of the safety management system in its current form; and*

*(b) a certificate in the approved form from an accredited auditor that verifies that the safety management system has been assessed and validated to ensure that the system comprehensively identifies and addresses the hazards<sup>22</sup> and risks associated with the design, construction, operation and maintenance of the entity's works.*

*(4) A prescribed electricity entity's safety management system **must** provide that, when the entity gives the chief executive a copy of its safety management system under subsection (3)(a) and a certificate under subsection (3)(b), the entity **must** give*

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<sup>22</sup> See section 3.3 for comment on 'hazards and risks'

*the chief executive any information the chief executive reasonably requires to ensure that the design, construction, operation and maintenance of the entity's works is in accordance with the requirements of the Act.*

*(5) A prescribed electricity entity's safety management system **must** provide for—*

*(a) the auditing by an accredited auditor, at least once every year and at the expense of the prescribed electricity entity, of how the entity is giving effect to the safety management system; and*

*(b) submission to the chief executive of an annual audit plan for the auditing mentioned in paragraph (a); and*

*(c) submission to the chief executive, after each annual audit, of a certificate of the accredited auditor who conducts the auditing mentioned in paragraph (a), stating the current level of compliance of the prescribed electricity entity with its safety management system; and*

*(d) the giving to the chief executive, after the chief executive's consideration of an annual audit plan under paragraph (b) or of a certificate of an accredited auditor under paragraph (c), of the further information the chief executive reasonably requires about the entity's safety management system and how the entity is giving effect to the system.*








*(6) A prescribed electricity entity's safety management system **must** also provide for—*

*(a) the making of modifications to the safety management system in accordance with the reasonable requirements of the chief executive; and*




*(b) if reasonably required by the chief executive, the auditing by an accredited auditor, in addition to the auditing provided for under subsection (5) and at the expense of the prescribed electricity entity, of how the entity is giving effect to the safety management system.*

## 11 Appendix E – Safety management system documentation checklist





An entity may develop a checklist, such as the example below. Items that may be covered, include:

-  Safety management system document in written form
-  Content
-  Details the risks associated with the design, construction, operation and maintenance of the entity's works.
-  Details of how the electricity entity is to manage the risks to ensure its electrical safety obligation is properly discharged.
-  Details what the entity will do to ensure contractors comply with the requirements for the safety management system.
-  Complies with any regulatory requirements for safety management systems including:
  - systems safety objectives
  - systems and procedures by which the objectives are to be achieved
  - performance criteria to be met,
  - the way in which adherence to the performance criteria is to be maintained,
-  Evidence that the document was developed in consultation  
With – industrial organisations of employees principle or primary contractors

### Non-mandatory

-  Declaration of commitment;
-  Evidence of performance results published in public domain;
-  Other items outlined in this guide.

### Lodgement

-  A copy of the safety management system in its current form;
-  A certificate in the approved form from an accredited auditor and statutory declaration,
-  Information the chief executive reasonably requires to ensure that the entity's works is in accordance with the requirements of the Act; and
-  Annual audit plan.

## 12 Appendix F - References

No	Name	Details	Version
1	<i>Electrical Safety Act 2002</i>	Available at: <a href="http://www.justice.qld.gov.au/fair-and-safe-work/electrical-safety/law-and-penalties/electrical-safety-legislation">http://www.justice.qld.gov.au/fair-and-safe-work/electrical-safety/law-and-penalties/electrical-safety-legislation</a> Note that updates may be issued at any time.	2 November 2009 Reprint No. 4
2	<i>Electrical Safety Regulation 2002</i>	Available at: <a href="http://www.justice.qld.gov.au/fair-and-safe-work/electrical-safety/law-and-penalties/electrical-safety-legislation">http://www.justice.qld.gov.au/fair-and-safe-work/electrical-safety/law-and-penalties/electrical-safety-legislation</a> Note that updates may be issued at any time.	27 November 2009 Reprint No. 4
3	Macquarie Dictionary	Internet On-line at <a href="http://www.macquariedictionary.com.au/">www.macquariedictionary.com.au/</a> Macquarie University, NSW	
4	Information Systems: A Management Perspective	S. Alter, University of San Francisco, The Benjamin/Cummings Publishing Co.	1992 Reprinted Sept. 1992
5	Management Concepts and Applications	L. Megginson, D. Mosley, P. Pietri Jr, Harper and Row,	1989 3 <sup>rd</sup> Edition
6	Occupational Health and Safety Management Systems—A Review of their Effectiveness in Securing Healthy and Safe Workplaces.	A report prepared for the National Occupational Health and Safety Commission. Gallagher, Underhill, and Rimmer	April 2001
7	Occupational Health and Safety Management System—Information Paper	A report prepared for the National Occupational Health and Safety Commission. Bottomley	November 1999
8	Electrical Safety Bill 2002—Explanatory Notes	Available at: <a href="http://www.legislation.qld.gov.au/Bills/50PDF/2002/ElectricalSB02Exp.pdf">http://www.legislation.qld.gov.au/Bills/50PDF/2002/ElectricalSB02Exp.pdf</a>	
9	Lessons from Longford: the Esso gas plant explosion	Dr Andrew Hopkins, ANU. published 2000, CCH Australia Ltd.	April 2000.