

# Working together on health and safety

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**WORKSAFE**

Mahi Haumarū Aotearoa

***Energy Safety***

# Who we are

WorkSafe – Energy Safety is an operating unit of High Hazards, Energy and Public Safety group of WorkSafe New Zealand. Energy Safety is the regulatory authority for the safe supply and use of gas and electricity in New Zealand through the administration of the Gas Act 1992 and the Electricity Act 1992





# What we do

Energy Safety carries out such enquiries, tests, audits or investigations as may be necessary to determine compliance with legislation.



# Overview of Energy Safety functions



- **Audits**
  - Product audits
  - Network audits
  - Certification audits
  - Installation audits
- **Investigations**
  - Accidents
  - Unsafe events
  - Non-compliance
  - Technical Inquiries
  - Approvals/Exemptions
  - Gazette Notices and Prohibitions
  - Safety Alerts/Articles
  - Stakeholder Engagements
  - Standards Work
  - Interpretation and clarification of regulations
  - Compliance action – Infringements and Prosecutions
  - International work



# Audits

## Product audits



Transformer fire



Distribution Pillar fire

# Audits



## Network audits



Network lines and scaffolding

# Audits



## SMS Requirements

## Electricity (Safety) Regulations 2010

## Regulation 47 Overview

### Statutory declaration

Health and Safety at Work (Mining Operations and Quarrying Operations) 2016: Evidence of Work or Employment Experience Prior to 1 January 2014

FORM

<b>I:</b> (full name)	<b>Signature of declarant:</b>
<b>Of:</b> (home address)	<b>Declared at:</b> (place)
<b>Occupation:</b>	<b>On the</b> <b>day of</b> <b>20</b>
<b>Before me:</b> (full name)	
<b>Authority to witness:</b> (eg Justice of the Peace or solicitor of the High Court)	

solemnly and sincerely declare that:

1. the document attached to this statutory declaration is a record of my employment or work experience; and
2. I have been unable to obtain certification of this record by the relevant supervisor or employer; and
3. the information contained in the record of my employment or work experience is true and correct to the best of my knowledge.

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths and Declarations Act 1957.

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New Zealand Government

worksafe.govt.nz 0800 030 040 1/1



# Audits

Works audits



External distribution board



Two earth wires disconnected from central neutral terminals



# Investigations

## Accidents



Distribution pillar fire



# Investigations



Unsafe events

E.g., Neutral Failure





# Investigations



## Non-compliance



# What does good look like

## Overview

Electricity Act 1992

*61A Electricity generators and electricity distributors must have safety management systems (SMS)*

*(1)*

*Every electricity generator and every electricity distributor that owns or operates an electricity supply system must implement and maintain, in accordance with regulations made under section 169, a safety management system.*



# Good looks like...

- **Records & Plans:** That the company is maintaining records and plans to locate fittings of works in accordance with regulation 46.
- **Earthing:** That requirements of regulation 42 are being complied with records of earth testing for the last five (5) years and the quality manual relating to the periodic checks on earthing.
- **Strength of works:** That a system is in place for the periodic checking of the strengths of works and the records of such checks. The quality manual relating to this including tagging of poles that are not capable of supporting design loads or poles that are at risk of failure in accordance with regulation 41.
- **Ongoing safety of works:** Documentation relating to the ongoing safety of the network in compliance with regulation 40.

# Continuation

- **Isolation fittings for works:** Ensure works are capable of being isolated from its supply of electricity (reference regulation 43).
- **Substation installations & protective fittings for works:** A number of zone sub stations will be looked at for security to prevent unauthorized access to the public and other compliance issues which may include resuscitation notices, earthing, bonding, and seismic restraints on transformers along with associated equipment at those sub stations or elsewhere. (Reference regulations 34 & 36)
- **Distribution Network:** Inspection of those areas of what would be deemed high risk areas such as around schools, public playing fields and lower socio-economic areas, where the risk to persons especially children is greater than that normally inherent in electricity distribution in general.
- **NZEC 34 Issues:** Any audit of systems and documentation the company has in place for minimum close approach distances (Reference regulation 17).
- **Tree management:** A check on the company for compliance with Electricity (Hazards from Trees) Regulations 2003 including the company's public notices.



# Network companies look good if they manage...

- Ground mounted distribution pillars
- Insecure fences around substations and fences not bonded
- Inadequate earth testing documentation
- Faulty locking mechanisms on transformers
- Leaking transformers
- Inadequate vegetation control
- Documentation lacking or low detail and follow up actions
- Inadequate pole testing regime
- The use of RCDs on socket outlets in outdoor locations for personnel protection
- Inadequate testing regimes for associated equipment
- Inadequate control measures for close approach permits

# Ngā mihi nui

Getting you home healthy and safe.  
That's what we're working for.

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