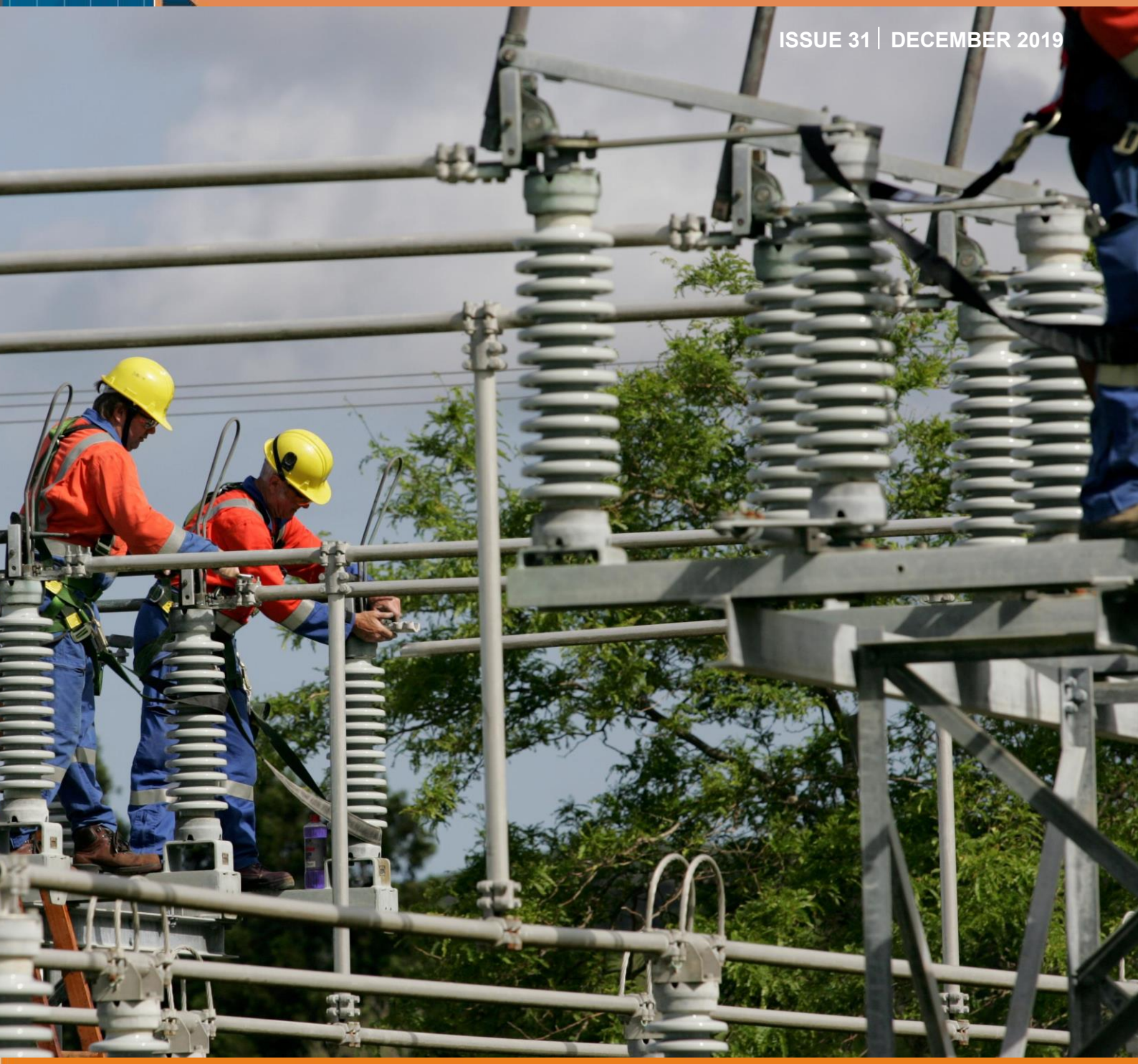
ELECTRICITY SUPPLY INDUSTRY—SAFETY RULES

SM-EI NEWSLETTER

ISSUE 31 | DECEMBER 2019



BACK TO BASICS ⇒ NON-NEGOTIABLE SAFETY REQUIREMENTS

ALWAYS CARRY OUT THE FOLLOWING WHEN THEY APPLY TO THE WORK TO BE PREFORMED:

① TEST for Safety

② ISOLATE, Prove De-Energised & Earth HV equipment prior to work

③ IMPLEMENT or apply safe work practices to live LV work

④ ENSURE protection from Voltage Difference

⑤ DETERMINE poles or pole structures are safe to climb

⑥ ENSURE fall arrest or restraint

1. INTRODUCTION

This Safety Rules Newsletter provides an update on;

- safety topics
- safety rules requirements, issues and interpretations
- live work topics

The Newsletter is a communication channel between the EEA and the industry practitioners who use the safety rules (SM-EI) as well as those who carry out live work. All users of SM-EI should be provided with access to or a copy of this Newsletter. The Newsletter additionally provides a brief update on the Asset Management Group activities.

This and previous Newsletters are available on the EEA website: Safety Rules Newsletter.

Any questions, suggestions and points for consideration are always welcome and should be sent to admin@eea.co.nz.

2. EEA COMMITTEES PROVIDING SAFETY LEADERSHIP

2.1 Industry Safety Leadership

The EEA President and the Executive Director are continuing their on-going programme to meet with industry senior executives to discuss safety leadership.

The meetings are in support of a decision by the EEA Executive to facilitate and support the recognition of industry Safety Leaders, which will enable a collective focus on significantly improving safety performance across the whole electricity supply industry (better than the WorkSafe targets) and provide a pan-industry framework to support the six Health and Safety at Work Act due diligence requirements of industry duty holders.

2.2 Safety Standards and Procedures Group (SSPG)

The SSPG role, Terms of Reference and membership information are on the EEA website.

The SSPG has worked to deliver the outputs identified in its current Business Plan (2019-2020) as set out in section, along with any revised priorities.

All enquiries regarding safety and safety rules issues should be made to the EEA at admin@eea.co.nz.

2.3 National Committee on Live Work (NCLW)

The NCLW role, scope and membership information are available on the EEA website. The NCLW welcomes feedback from stakeholders and can be contacted through the EEA at admin@eea.co.nz.

Since the last SM-EI newsletter the NCLW have been busy with the development of the *High Voltage Model Procedures for Glove and Barrier work*, *HV Live Work restart – Industry Practice note* and reviewing the *Guide to Field Auditing*.

2.4 Public Safety Working Group (PSWG)

The PSWG role, Terms of Reference and membership information are on the EEA website.

PSWG have been reviewing their Terms of Reference, in order to ensure that their efforts align with industry needs. This has already led to decisions to refocus activity into new areas, including:

- Developing a guide to support audits directly against the requirements of Electricity (Safety) Regulations 49 & 50 – as an alternative to compliance with AS/NZS 7901. This work would also include working with JAS-ANZ to get auditors onboard with tacking this on to audits against AS/NZS ISO 45000.
- New metrics for the Public Safety statistics

2.5 Asset Management Group (AMG)

The AMG role, Terms of Reference and membership information are on the EEA website.

The AMG and working group members have been working on three guides, *Asset Criticality, Power Earthing guide review, and Infrastructure Resilience Guide*. Along with those guide a review of the *Connecting of Generation Plant guide* is underway and the Annual Asset Management forum was held just before the EEA conference in June.

3. SPECIAL ITEM: SM-EI Revitalization Project

It's been a busy year for us as we prepare the next edition of the *Safety Manual for the Electricity Industry (SM-EI)*. We have had two rounds of engagements, to help us figure out more about what is needed. Our working group is now working hard to update content, including by creating new content to explain the reasons and stories sitting behind each recommendation within SM-EI.

The next step is to procure a digital platform to host it on (N.B. there will still be a print edition). The digital platform will allow the EEA to test industry's appetite for new forms of content delivery. It needs to be easy to use, and intuitive to navigate for those querying its content.

We aim for it to provide access to enhanced content, user stories and links to other relevant documents and resources to further enhance understanding and utility of the SM-EI. We want it to integrate with EEA's existing website so that a seamless experience is provided, including supporting a single sign-in. We want the digital platform to be the beginning of a new way of developing, delivering and maintaining our suite of documents.

We are excited about this next step, and we plan to involve members in testing it out. Keep an eye on our website and our EEA monthly newsletter for further updates.

4. EEA SAFETY INITIATIVES

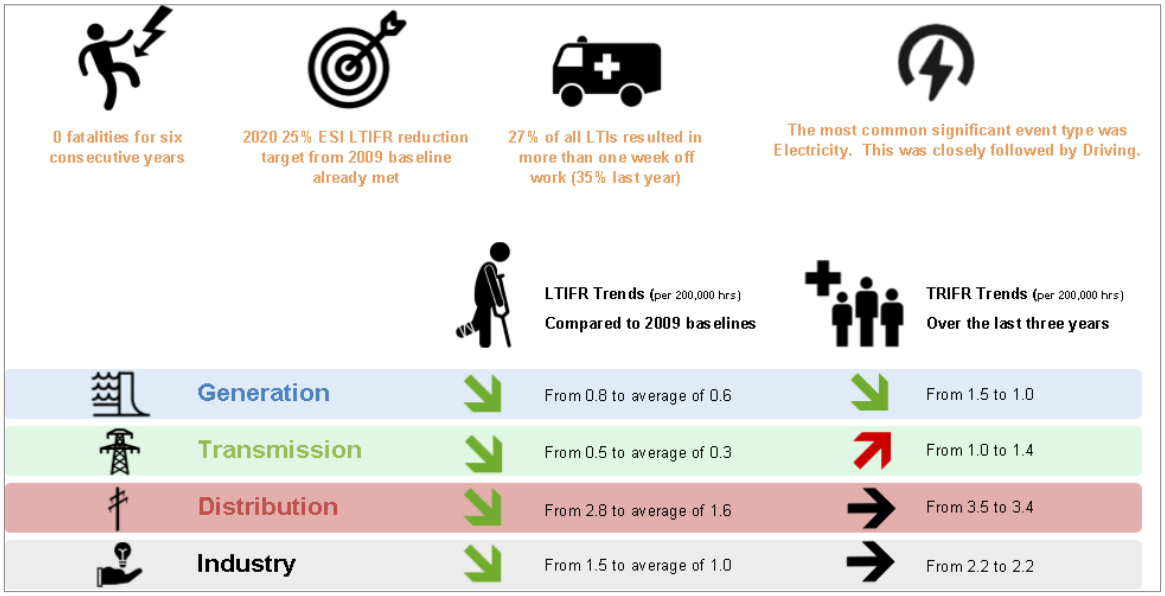
4.1 ESI Health and Safety Statistics

Many thanks to all the electricity supply industry participants who sent in safety statistics. It provides a vital cross-industry role, helping focus future coordinated work on the most important areas we need to improve.

Thirty-eight companies participated in the 2018/19 survey return. This included two Distribution companies that did not participate in last year's return, and one new member who is participating for the first time.

As a taste of what we are likely to see in the report, here is the industry snapshot. The full report is supported by industry benchmarks and an inventory of critical risk events for the year. Together these materials will help companies to understand how they are performing relative to the rest of the industry, and where more focus is needed.

Here are some highlights from the report:



4.2 Safety Alert System

Reported Events

Reports of accidents and incidents are posted on the EEA website. Readers are reminded to check the EEA website periodically for new notices (*access through an EEA member is required*). Readers need to ensure they review the posted reports to identify any hazards that affect their assets or methods of working.

4.3 Important changes to the Safety Alert system

The EEA Safety Alert reporting system ("the system") was implemented in 1999 to enable the electricity supply industry to alert each other about incidents and near misses, so that where appropriate the whole industry is enabled to take precautions to avoid similar events.

Members of the SSPG have noted in their discussions with industry that the system is sometimes overlooked as a mechanism for sharing learnings across industry. Instead, incidents are often discussed informally between companies.

Representatives from SSPG engaged with the following stakeholders about the system in order to understand why the system is sometimes overlooked:

- National Committee for Live Work (NCLW)
- Electricity Distribution Industry (EDI) Health and Safety Forum
- StayLive (generators forum)

Following the above engagements, SSPG reviewed the system to identify opportunities to improve the system to better suit industry needs.

The system is focussed on capturing the details of incidents and accidents, irrespective of whether there are learnings for the wider industry. While this is generating a satisfactory volume of alerts, it does not appear to be optimised for the needs of industry. Through relatively simple changes, the emphasis could be shifted to sharing learnings to address industry needs, which may enhance submission rates.

We are preparing to shift the focus of the system to emphasise that following the identification of an issue, such as following an event, that learnings may be identified in two distinct stages:

- Precautionary measures (which should be implemented as a matter of priority)
- Confirmed solutions (following a robust process to fully explore the issue and candidate solutions)

4.4 National Awards for Workplace Safety, Public Safety and Young Engineer of the Year

These awards were presented at the EEA Conference 2019:

- EEA Young Engineer of the Year is Michael Dalzell, Team Leader - HVDC & Power Electronics Engineering at Transpower
- The EEA Public Safety Award was presented to Unison for their 'Be Aware Electricity Kills' Programme
- Winner of the Workplace Safety Award was Powernet for their 'Industry game changer- the pole grab' project

4.5 Conference 2020

The 2020 EEA Conference will be held in Wellington on 7th to 9th July and is New Zealand's largest technical power industry event. It brings together national and international thought leaders, innovators, engineering practitioners, regulators and leading technology companies.

Key dates to remember

- November 2019 — Abstract submissions open
- Friday 28th February 2020 — Abstract submissions close
- Friday 20th March 2020 — Notification of acceptance
- Friday 3rd April 2020 — Authors to confirm participation
- Friday 15th May 2020 — Full paper due

See our website for more information and to register.

4.6 Health and Safety Workshop 2019

Nearly 80 people attended the workshop this year, including presenters.

Survey results confirmed that most participants were happy with the workshop, including in relation to the theme (Hearts + Minds = Safety), relevance to their work, quality of presentations. They also really valued the event as a networking and information opportunity and were pleased by EEA's efforts to keep them informed about the event.

When ranked by preference, the sessions most preferred were:

- 1st: Psychological Wellbeing - Keeping our people safe and well (Electra)
- 2nd equal:
  - Keynote: Creating a Deliberate Caring Culture
  - Keynote: Microlearning, 'Safety in Design' at Orion
- Next runner up: The role of an HSR in creating better work (Delta)

For next year, participants would like to see us keep up the good work but would like to see more about what best practice is internationally.

More information about the 2019 Health and Safety Workshop is available on our website.

5. EEA TECHNICAL GUIDES AND ADVISORY BULLETINS

5.1 Published Guides and Advisory Bulletins

EEA Guides convey principles and minimum accepted practices as a means of conformance to regulatory and SM-EI requirements. Employers are responsible for providing a comprehensive work management system that identifies and controls hazards and risks, details safe work procedures, and that ensures employees are competent, equipped and adequately supervised to carry these out with safe outcomes. EEA Guides are suitable for information, as a training resource, and for the review or development of employer work procedures specific to the work management system.

Asset Criticality (Guide)

As asset management practices have evolved and matured since the publication of the *'Asset Health Indicator (AHI) Guide'* (published in January 2016 and revised in April 2019), there has been an increasing discussion and focus on criteria for criticality of assets to enable improvements in asset management practices and provide a more granular understanding of investment/quality linkages, resilience and where to target future investment.

The purpose of this new guide is to provide a methodology to categorise consequences of failure. When combined with a view of asset health, this will better inform renewal decisions. It will also provide a means of representing the risk profile of a population or fleet of assets.

This guide has been produced with the following objectives:

- Provide a relatively simple, low overhead approach for evaluating asset criticality and risk. This can be used by any user, but also paves the way for more sophisticated or novel approaches if there is a need for better accuracy and insight.
- Provide a common industry-wide approach to present the risk profile of asset fleets. This can be used by asset managers to justify or demonstrate the improvements in risk profile that could be brought about by intervention investments.

Asset Health Indicator (Guide)

Asset Health Indicators provide an objective means of weighing the timing implications of renewal activities on long life capital intensive infrastructure assets. They enable well informed strategic discussions around the adequacy and sustainability of forecast capital expenditure scenarios. The guide provides a framework for classifying and presenting field collected condition information in combination with other office-based evaluation processes to create indices for strategic purposes. It represents a collective view of the causes of asset replacement from different sectors of the electricity supply industry.

The guide provides a common way for the industry to approach the preparation of asset health indicators, which are intended as a strategic tool for asset management governance discussions. As such the guide steers away from providing detailed asset inspection guidance; rather its focus is to enable informed strategic discussions around asset replacement such as:

- What is the life-cycle distribution of our current assets?
- What is the health of the assets under our organisation's stewardship as of today?

- How will a specific investment profile affect the assets' health?

The guide is an important part of supporting the development of consistent, maturing asset management capability across the industry. For the past three years the AMG has regarded asset health indicators as a priority topic. For some time, the AMG has been working towards the publication of this guide with a particular focus being applied the first half of 2014.

The Guide was developed using professional expertise and with extensive feedback from the members. Recognising the significance of the guide and the strong industry interest in its application, the AMG welcomes feedback on this guide, email to admin@eea.co.nz subject line "AHI Guide Feedback".

Overlapping Duties under the Health and Safety at Work Act (Guide)

This Guide provides guidance on means of compliance with duties set out in sections 33 and 34 of the Health and Safety at Work Act 2015, commonly referred to as overlapping duties. The Guide provides information to the electricity supply industry (ESI) on activities with respect to the duty to consult, co-operate with, and co-ordinate activities with all other businesses (PCBUs) which have a duty in relation to the same matter. The duties may arise from activities which the ESI business has initiated or they may be in response to activities initiated by another business working in the vicinity of ESI assets or a worksite. The activities covered include those arising from a supply chain to those arising from one-off contracted supply.

Power System Earthing Practice Guide

Following a comprehensive review of the guide there have been improvements in industry good practice that have been incorporated where these add improved knowledge on managing the risks associated with owning and operating power system earthing systems.

The key areas of improvement are;

- The Guide now recommends that only the IEC current limits for assessing what touch and step voltage levels constitute a hazardous voltage level be used.
- The IEEE Guide 80 approach to assessing hazardous voltage levels has been dropped although the rest of the very useful Guide 80 advice regarding mitigation of step and touch voltage hazards and the methodology of the calculations is retained.

  Users should continue to refer to Appendix A of this EEA document for guidance in applying the methodology of step and touch voltage calculations.
- The relative risks associated with different sizes of Multiple Earthed Neutral (MEN) systems – in terms of customer numbers supplied – has been given special attention as requested by industry Members. Additional modelling analysis was sought to better assess how the various sizes of MEN systems perform bearing in mind the relative risks for connected customers.
- The Guide now contains more detailed advice on the factors which influence the decision to provide separate HV and LV earthing for weak MEN systems.
- Recommended good practice earthing arrangements depicted in a series of standard practice drawings have been updated and clarified.

- The alternative (to a MEN) earthing method labelled by the IEC as a 'TT system' has been given more attention especially as electric vehicle chargers internationally appear to be designed to operate more safely from a TT earth supply system

Selection of Work Methods to Undertake Low Voltage Work on Electricity Supply Assets (Guide for the)

The EEA is committed to promoting safe work practice and industry experience with industry companies and the Regulators to successfully manage health and safety risks within our Industry. Where industry agrees to follow a similar approach to manage a common risk the intention is to formalise this in an industry guide.

This Guide provides a transparent framework to assist the Electricity Supply Industry to apply a structured risk assessment approach to determine the appropriate method to undertake Low Voltage work. Specifically, to help determine, based on a balance of risk, the selection between a de-energised or live work method to undertake work on overhead or underground assets. In both cases the work must be controlled in accordance with the requirements of the Health and Safety at Work Act 2015.

The Guide has been prepared by the EEA, their NCLW, reviewed by the SSPG and representatives of the electricity supply industry as a guidance document for the New Zealand Electricity Supply Industry. This Guide also aims to promote discussion on areas for further improvement in management of Low Voltage Live Work in the industry and will be regularly reviewed and updated. Feedback from all interested parties is encouraged and should be sent to admin@eea.co.nz.

Switching instructions and communications: Technical Guide

This Guide sets out the essential safety principles for switching instructions and associated communications. It is designed to assist the ESI to develop their own specific procedures and processes for switching. It also recognises there may be variations between generation, transmission and distribution companies (e.g. terminologies etc).

This Guide is an 'industry procedure' as defined in SM-EI and provides guidance for achieving SM-EI requirements for switching. Other specific and general requirements of SM-EI must also be followed when performing switching and are not repeated in this Guide.

The Guide has been prepared to provide competent workers in the ESI with guidance on how to consider and control risks inherent with switching operations. It is intended to be read in conjunction with SM-EI.

The Guide applies to:

- the compiling, checking and actioning of switching instructions for Switching of HV equipment, Earthing of HV equipment, Application of issuer applied safety measures for permits and assurances.
- protocols for communicating the steps when the instructions are being actioned.

EEA would appreciate any feedback on the guide with which should be sent to admin@eea.co.nz.

Transport of High Loads through Electricity Network Areas in New Zealand (Guide)

This Guide was originally published in September 2008, was revised in 2015 and now updated in 2018 to reflect changes in legislation. The *New Zealand Electrical Code of Practice No. 34 Electrical Safety Distances (ECP 34)* remains unchanged. However, the *Health and Safety in Employment Act* has been replaced by *the Health and Safety at Work Act*; the *Electricity Regulations 1997* have been superseded by the *Electricity (Safety) Regulations 2010*; and the *Traffic Regulations 1976* have been superseded by various *Land Transport Rules*. The Rule applicable to the transport of high loads being *Land Transport Rule - Vehicle Dimensions and Mass 2016.*

The Guide includes, with a view to national standardisation, recommendations as to the content and form of the high load transport requests that are lodged by haulage contractors prior to the travel period and the Permissions that are issued in response by network operators. They suggest, wherever practicable, the establishment of high load corridors that may be used by haulage contractors without necessitating action by the relevant network operator and discuss the requirement to agree the travel period through the area.

The Guide makes no recommendation as to the fees that should be charged in cases when an operator incurs chargeable costs, other than to say that the operator should charge on a basis that is fair, reasonable, and justifiable.

Suggestions for clarifying, revising or supplementing the content should be sent to admin@eea.co.nz.

HV Live Work Restart – Industry Practice notes

This *Industry Practice Note* sets out the essential organisation principles for *restarting High Voltage (HV) Live Line* work where an organisation has existing policies, procedures and systems. This *Industry Practice Note* applies to organisations who have stopped Live Line Work for a period of greater than 12 months which is consistent with competency requirements, it is intended to provide a health check on organisation systems and processes

High Voltage Live Work Model Procedures for Glove and Barrier Work

These procedures are designed for organisations undertaking *HV live line work* and can be used as they are or taken and formatted into your organisation's format.

The *Model Procedures* have been produced to support standardisation of work practices and procedures for Network owners, asset managers, contractors, training providers and qualified and authorised high voltage (HV) live workers undertaking HV live work in New Zealand.

The purpose of this document is to provide model procedure frameworks and information to enhance or supplement safety standards relating to practices *in New Zealand Electrical Code of Practice for High Voltage Live Line Work (NZECP 46:2003)*, used by live line workers. The document also provides consistent minimum *model procedures for Glove and Barrier work* in order to support improved safety, technical and quality outcomes relating to Glove and Barrier work.

Each model procedure uses a generic framework for Live line work 33kV and below and will need to be completed or modified, then validated against specific requirements of the users including asset owners, service providers and live line workers. Modifications may include but are not limited to business risk profiles; outcomes of risk assessments including asset design; operational requirements; asset management requirements; worker safety and competencies; and types of equipment.

EEA Guides are not intended as specific work procedures in their own right, although in certain circumstances they may state that they may be used as a procedure. Published Guides are on the EEA website at: Publications.

5.2 Draft and Proposed Guides (Including Revisions)

There a no guides currently being consulted on.

Infrastructure Resilience Guide

AMG have been developing the guide which is currently in the last stages of drafting before being released for consultation, which is expected to be in February 2020. The guide will incorporate:

- reduction and assessment of risks
- readiness plans
- response plans
- recovery stage
- lifeline groups
- measurement of organisations resilience

To assist in the development of this very exciting and important guide we are also obtaining specialist advise and peer reviews, to ensure we set the standard for our communities.

Guide to Field Auditing

This guide has been under review by the NCLW with the aim to release the reviewed guide in February 2020. The ongoing safety of any Live Line Work team or team member is heavily reliant on strict adherence to set safety and work procedures and techniques.

During Live Line Work training, very high safety standards are instilled, key purposes of field audits, both announced and unannounced, are designed to raise safety awareness and provide an independent review of in-field practices, thus playing a crucial role in ensuring the safety of Live Line Work.

Updates to the guide include taking into consideration legislation change, feedback provided by users and the addition of an auditing and feedback template.

LV Works Management for Distribution (Network) Infrastructure Assets

This guide from SSPG was commissioned to review current control of work processes and procedures to ensure we have safe systems for work on Low Voltage networks that better align to the standards we apply to work on High Voltage networks. A consultation on the draft ended recently, and the working group is reviewing all feedback and making changes to the document.

It is possible that there may be a further consultation because some of the changes made are substantial, so keep an eye out on the consultation section of our website.

Other guides under review

The following guides are also being reviewed:

- Guide for Livening of Service Connections to Premises (2012)
- Management of electrical safety for utility arborists near overhead electric lines (Draft)
- Guide to electrical safety for forest and woodlot felling and logging operations
- Guide for Manual reclosing and Automatic reclose following a fault
- Blue Indicating Silica Gel

6. GUIDES ETC ISSUED BY REGULATORS AND OTHER PARTIES

6.1 New guide on protective clothing

WorkSafe has released new guidance on protective clothing. This new guide offers advice on what to consider when selecting protective clothing, and outlines requirements for providing and maintaining protective clothing for workers.

The guide is available for viewing on the WorkSafe website.

6.2 Updated guidance on protection from dust

WorkSafe has a range of information about managing the risk of exposure to dust. If you are a business that is concerned about accelerated silicosis and you want advice, you should read the guidance, silica dust in the workplace. WorkSafe also has guidance for workers about the 8 key things they need to know to protect themselves from silica dust. Both pieces of guidance are in English, Te Reo Māori, Chinese (simplified and traditional), and Hindi, with Samoan and Tongan translations coming soon.

6.3 Revised guide to gas cylinders

WorkSafe has revised its guide to gas cylinders to ensure all people who deal with containers or gases under pressure understand the risks, and the mechanisms and procedures to prevent accidental damage or injury. The revised Guide is available on the WorkSafe website.

6.4 Fact Sheet: common mistakes when handling solvents

WorkSafe has created a quick reference fact sheet of common do's and don'ts when working with organic solvents. The Fact Sheet is available on the WorkSafe website.

6.5 New guidance on building health and safety into contract management

WorkSafe has created new guidance on building health and safety into contract management, which deals with overlapping health and safety obligations in a contracting chain when contractors and subcontractors provide services to a lead contractor or client.

The guide covers:

- your duties under HSWA
- managing overlapping duties
- scoping work
- pre-qualifying the contractor
- contractor selection and negotiation of terms
- awarding the contract
- monitoring the contract
- post-contract review

6.6 New fact sheet on hydrogen sulphide

WorkSafe has published a new fact sheet describing the risk posed by high concentrations of hydrogen sulphide, especially in businesses operating or located near geothermal bores. Hydrogen sulphide (H2S) is a toxic gas which occurs in a variety of natural and industrial settings. The Fact Sheet is available on the WorkSafe website.

6.7 New guide on working near low voltage overhead electric lines

WorkSafe has published a new guide on working near low voltage overhead electric lines.

Touching a live low voltage overhead electric line with any part of the body, a tool or equipment can cause death or serious injury. If work needs to be done near a live low voltage overhead electric line, the safest option is to eliminate the risk of electric shock by having the electricity supply to the property isolated before work starts.

The key points in the new guide are:

- If isolating the electricity supply is not possible, workers must maintain a minimum approach distance (MAD) so that they keep their body, tools and equipment a safe distance from the overhead line
- With written consent from the property owner, workers must maintain a MAD of at least 0.5 m from the overhead line
- Without written consent from the property owner, workers must maintain a MAD of at least 4 m from the overhead line.

The property owner owns the electrical assets inside the property boundary, including the overhead line. There are also specific MADs for temporary structures (such as scaffolding) and mobile plant in use near an overhead line.

As well as maintaining a MAD, WorkSafe expects additional control measures to be used to minimise the risk of electric shock. MADs are specified by law and are described in detail in the *New Zealand Electrical Code of Practice for Electrical Safe Distances: NZECP 34*

6.8 New guide on gases under pressure

All gases under pressure (even non-hazardous gases such as nitrogen) must comply with the relevant sections of the *Health and Safety at Work (Hazardous Substances) Regulations 2017*. These regulations cover a range of matters relating to gases under pressure, including controls on gas cylinders. WorkSafe has published a new guide to gas cylinders intended to assist and guide any person, group or organisation that is involved in, or intends being involved in, the importation, manufacture, supply, filling, storage, handling or periodic testing of gas cylinders and fittings.

6.9 New guide on building health and safety into contract management

Health and safety obligations can overlap in a contracting chain when contractors and subcontractors provide services to a lead contractor or client. WorkSafe has created a new guide that covers:

- your duties under HSWA
- managing overlapping duties
- scoping work
- pre-qualifying the contractor
- contractor selection and negotiation of terms
- awarding the contract
- monitoring the contract
- post-contract review

6.10 New guide on importing or exporting hazardous waste

A guide was released by the Environmental Protection Authority (EPA), with application forms, regarding the movement of hazardous waste into, out of, or through New Zealand, which requires a permit from the EPA.

6.11 New fact sheet on asbestos and a body corporate

WorkSafe released a fact sheet which covers a body corporate's duty to identify and manage asbestos. The fact sheet covers asbestos management plans, and when these may be needed, responsibilities when more than one PCBU is involved, the types of work that might create a risk, and how to identify asbestos.

7. WORKSHOPS & COURSES

The following workshops and courses have been held since the last SM-EI Update Newsletter:

7.1 EEA Health and Safety Workshop

The EEA Health and Safety Workshop for 2019 was held in Wellington on 30th and 31st October. The theme was Hearts + Minds = Safety. See section 4.6 for more information.

7.2 Live Work Forum

The EEA NCLW held their annual forum in Christchurch on Tuesday 27th August 2019. The presentations made are available on the EEA website: Live Work Forum.

The forum was attended by over 60 attendees from around New Zealand and guest from Australia. The forum was a fantastic opportunity to network with peers and learn about the work on the *High Voltage Model procedures*, application of the *Work Selection Method*, what activities are occurring internationally and activities occurring in Australia along with the issue they are having. The attendees also shared the issues and learnings that have occurred over the last twelve months.

7.3 Asset Management Forum

This year's forum was focused around Assets, Opportunities and Innovation in the asset management aspect of the electricity business.

7.4 Incident Cause Analysis Method (ICAM) - Lead Incident Investigator

In October, we ran our Lead Incident Investigator course over two days. ICAM is an industrial HSE initiative that draws on the work of the eminent organisational psychologist and human error expert Professor James Reason. ICAM provides a highly practical and structured method in which to conduct systemic HSE investigations. We also have other ICAM courses available, which you can find out about in the Professional Development section of our website.

7.5 Writing Technical Standards for an Electricity Supply Business

Writing Technical Standards is such a big part of delivering high-quality safety, asset management and engineering/technical outcomes to our people and businesses. So, we ran a course on the subject in late November. It's a new course, so there were things we would do differently next time, but the feedback was good. We have already received substantial interest in running another, so keep your eyes on our website to register for the next one.

8. LEGISLATION AND REGULATORY UPDATE

8.1 New Zealand Transport Agency (NZTA)

Early in 2019, we successfully lobbied NZTA to change an interim decision on traffic management that negatively impacted on maintenance work in our industry. Since then we have been working with NZTA to ensure that there are no repeats. Subsequently we arranged for NZTA to speak at a recent *EDI Health and Safety forum*, and at our *Health and Safety Workshop 2019*. We have also held a workshop to canvas and prioritise members views on challenges with temporary traffic management in New Zealand's road corridor. These were then prioritized and communicated to NZTA for consideration, and to act as a foundation for further discussion.

The challenges raised by members largely fell within one of the following issue areas:

- Clarity of the *Code of Practice for Temporary Traffic Management* (CoPTTM)
- Inconsistency between *Road Control Authorities* in their risk-management approach and interpretations of CoPTTM
- Perceived regulatory tension/conflict between requirements of NZTA, RCA's, WorkSafe New Zealand, and the Commerce Commission

Further to the above, EEA has joined the *NZTA's Road Work Site Health and Safety Programme Stakeholder/Delivery group*, and we are also supporting WorkSafe to develop guidance aimed to assist people to keep safe when working in the road corridor.

We will continue our efforts to build a constructive relationship with the regulators to advance our members interests on this very tricky subject.

8.2 Building Amendment Act 2019

This Act amends the *Building Act 2004* and received Royal Assent on 17th June 2019. It creates two new sets of powers to improve the system for managing buildings after an emergency and to provide for investigating building failures.

8.3 Overhaul for building legislation

On 11th October the Minister for Building and Construction announced the Government's first set of decisions on the proposed building reforms. The reforms will speed up consenting, help people to choose the right products and install them correctly, and make it cheaper and faster to use innovative building methods such as prefabrication.

Ministry of Business, Innovation and Employment (MBIE) is now working on the details for each proposal so a draft Bill can be introduced to Parliament in the first half of 2020.

The proposed changes will be phased to come into effect over time. This will allow MBIE to keep up the momentum with the reforms while continuing to work on those proposals that need further development and testing.

8.4 Development of Regulations to Support HSW Act

MBIE has consulted on the development of regulations to support the HSW Act. Consultation closed on 4th October 2019. The consultation covered the following:

- Plant
- Mobile plant
- Design, manufacture, supply, import and installation of plant or structures
- High-risk plant
- Working at heights and scaffolding
- Excavation work

This is part of the regulatory reform programme to continue implementing *the Health and Safety at Work Act 2015*. More background information about the reform programme and additional documents are on the Health and Safety Reform page of their website. The Cabinet Paper and Minute for the discussion paper are available on the MBIE website.

8.5 WorkSafe Consultations

WorkSafe consulted on:

- Proposed changes to *Workplace Exposure Standards and Biological Exposure Indices*

WorkSafe is proposing changes to the WES of 34 substances and the BEI of one substance.

Consultation has closed, and the outcome is pending.

Proposed Safe Work Instruments

Worksafe has consulted on three proposed safe work instruments (SWIs) to support the *Health and Safety at Work (Hazardous Substances) Regulations 2017.*

The proposed SWIs are required to specify additional design standards for cylinders, a new standard for low-pressure fire extinguishers, and a standard for the design and construction of above ground stationary tanks. Consultation has closed, and the outcome is pending.

First aid at work, shift work and cytotoxic drugs

WorkSafe has developing the following guidance for businesses:

- Safe and healthy shift work
- Keeping safe when handling cytotoxic drugs and related waste
- First aid at work

Consultation has not yet commenced but was proposed for release in December 2019.

8.6 EPA Consultations

EPA is currently consulting on:

Proposal to change the classification system for hazardous substances in New Zealand

The EPA is proposing to update the current classification framework for hazardous substances to the *Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Revision 7 (2017).*

The GHS is an internationally agreed system developed by the United Nations to classify chemicals and communicate their hazards through labels and safety data sheets. If adopted, it will ensure an internationally aligned classification system for hazardous substances that facilitates trade, increases efficiency in chemicals management, and enhances the effectiveness of the *Hazardous Substances and New Organisms Act 1996*. Further information on the consultation is on the EPA website.

Note that submissions closed at 5pm on 9th January 2020.

EPA proposed consultations for 2020:

Adding two substances to the list of persistent organic pollutants in the HSNO Act

The EPA is proposing to amend the *HSNO Act (Schedule 2A)* to add two substances to the list of persistent organic pollutants (POPs). This amendment is required to enable New Zealand to continue to fulfil its obligations under the Stockholm Convention, to eliminate and restrict the production and use of POPs. This consultation is expected to start in February 2020

Amending the EPA Hazardous Substances (Storage and Disposal of Persistent Organic Pollutants) Notice 2004

The EPA is proposing to amend the *Hazardous Substances (Storage and Disposal of Persistent Organic Pollutants) Notice 2004*. This Gazette Notice prohibits the storage or disposal of any persistent organic pollutant (POP) in New Zealand, unless it is stored or disposed of in accordance with the requirements included in the notice.

The proposed amendments include:

- updating the requirements relating to the disposal of POPs
- updating the notice to take account of the legislative reform which occurred in December 2017
- adding new provisions for manufactured articles that contain POPs.

This consultation is expected to start in February or March 2020.

9. SAFETY MANUAL – ELECTRICITY INDUSTRY (SM-EI)

9.1 SM-EI: Revitalisation Project / SM-EI Review

SM-EI is the most extensively used of all our documents. The EEA has initiated a project aiming to understand how SM-EI is used by industry, whether directly or indirectly, so that we can improve the usability and the accessibility of its information to users. This will lead to new ways of delivering or supporting the delivery of its information to users. This is a major project for the EEA, and you can expect big changes in both its content and how we deliver and provide support for it. Our aim is to publish the next version of SM-EI in March 2020. We will make further announcements and provide updates on this via our website and the EEA newsletters. See section 3 for more information.

9.2 Interpretations and Clarifications

N.B. Formal interpretations are posted on the EEA website at: SM-EI Interpretations

A number of requests for comment or guidance have been received and responded to. A summary of the interpretations and clarifications, and the advice provided, is as follows;

Q1 - Issuer Earths Under Access Permits

> *Regarding issuer earths being removed under an access permit. I have had this come up a number of times and cannot get an agreement, Rule 3.505 (d) & (e) in part 3 of SM-EI rules allows for testing under an access permit. Now in order to remove issuer safety measures ie earths Rule 3.407 allows them to be changed by agreement, but the problem I have encountered is around the word " change " in the rule. I would have thought it safe by agreement with the issuer to remove earths for testing purposes. Can I please get an opinion from you with a view to remove the word " change " and insert the word " Remove " in rule 3.407 thanks. (EWRB Reg E4095)*

SSPG Response

3.407 – allows the issuer to change safety measures – we interpret this to mean:

- The issuer may change of the original and documented position of the issuer applied safety measure to a different location
    - By way of example – work crew needs to strain a OH line up but the issuer applied earths are in the span they need to strain – the recipient contacts the issuer and discusses moving these to an alternate span – the issuer then instructs the re positioning of the issuer controlled earths – all parties are advised of this move (permits are return and reissued as required – reference second paragraph)
- For a test permit – (reference paragraph 3) Under a test permit the recipient is allowed to remove and reapply safety measures as required whilst undertaking the testing – what this paragraph allows is the change in location of the original location of the issuer applied safety measure – by agreement

3.407 – doesn't allow the removal of any issuer applied safety measures and it shouldn't as these should only be removed for test permits or at the cancellation / return of a access permit

3.505 – allows limited testing under an access permit but does not allow the removal of issuer applied safety measures – it does allow recipient applied safety measure to be removed

In summary, they did not feel that a change is needed, although they have agreed to ensure that the next version is clearer on this point.

Q2 - Tests on in-situ equipment

> *There is a discrepancy between the note in Rule 3.505: (The following tests on in-situ equipment should be performed under a Test Permit:*
>
> - *Power Factor (Doble) testing.) and a statement in 3.744 (a): During testing for which a test permit is not required, e.g. equipment being tested but not yet in-service or removed from its service position to a workshop or a store, or testing in accordance with rule 3.505, the supervisor shall take all precautions necessary to ensure that any risk of harm to employees is minimised. This includes the use of suitable signs, barriers and perimeter markings. Where do I stand when power factor testing a new transformer, that has been put into position. So, it is "in-situ" but also "not yet in-service"*

But if there is an access permit out for a section of a switchyard, and then a new transformer is placed in the yard on its base, is a test permit required for the HV testing of the transformer if it has not been physically connected to the network? If the droppers are then connected to the transformer, is this the point at which it is considered "connected" to the network, and a test permit is now needed?

SSPG Response

With regards to a Power Factor test:

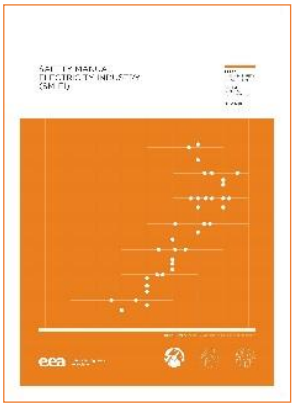
- If a transformer has been moved to site and positioned in place but not connected to the network then the testing should be managed under a minor works management system (rule 3.402 Note 2), a test permit is not required (rule 3.744 a)
- If a transformer has been moved to site and positioned in place and connected to the network (where the closing of fuses would liven) then the testing should be managed under a test permit (rule 3.402 ii)
- If a transformer is in position at site, has been isolated and testing is required then a test permit is required (rule 3.402 i)

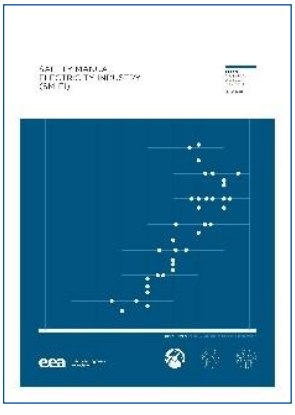
Q3 - Work Permit recipient relationship to the work party

What is the background to this Rule and does the recipient have to be a member of a work party in a switchyard?

SSPG Response

Yes, there is such a requirement and there is scope for the recipient to transfer the Work Permit if they leave the site.





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