#### ELECTRICITY SUPPLY INDUSTRY—SAFETY RULES

## **SM-EI NEWSLETTER**







ISSUE 29 | FEBRUARY 2019

#### **SUMMARY OF KEY TOPICS**

The following is a selection of key topics covered in this Newsletter and a brief description of the topic. Further detail is provided in the Newsletter.

#### **EEA COMMITTEES PROVIDING SAFETY LEADERSHIP**

Updates on the Safety Standards and Procedures Group (SSPG), National Committee on Live Work (NCLW) and Asset Management Group (AMG) are provided.

(SEE SECTION 2)

#### **CRITICAL RISK AREAS**

The critical risks identified are to be presented in a form which can be posted on the EEA website.

(SEE SECTION 3.2)

#### **DRAFT GUIDES**

The EEA has prepared drafts of revised and new Guides

- Switching Instructions
- Guide for the Selection of Work Methods to Undertake Low Voltage Work on Electricity Supply Assets
- Stand Procedures for Live Work
- Maritime New Zealand (MNZ)/EEA Guide to Safety
  Management for Power Line Crossings of Navigable
  Waterways and Slipways

(SEE SECTION 4.2)

#### **NEW AND REVISED GUIDES**

The EEA has published six new Guides.

- Arc Flash
- Mobile Plant (ESI)

- Mobile Plant (Non ESI)
- Portable Equipment
- Transport of High Loads
- Metering Safety

(SEE SECTION 4.3)

#### INTERPRETATIONS AND CLARIFICATIONS

A number of requests for interpretation or clarification of SM-EI requirements have been received. A summary of responses is contained in section 8.3.

(SEE SECTION 8.3)

#### SURGE ARRESTORS

Potential inclusion of explosive charge.

#### WORKSAFE ALERT ON REMOTE CONTROLS

The failure of two remote control units from WorkSafe alerts.

#### UNAUTHORISED PUBLICATION OF AS/NZS 3000

Alert on unauthorised availability of AS/NZS 3000:2018 on social media.

### 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
- ③ IMPLEMENT or apply safe work practices to live LV work
- ⑤ DETERMINE poles or pole structures are safe to climb
- ② ISOLATE, Prove De-Energised & Earth HV equipment prior to work
- ENSURE protection from Voltage Difference
- **(6)** ENSURE fall arrest or restraint

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#### 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 Memorandum of Understanding with the Electricity Networks Association (ENA)

The EEA and the Electricity Networks Association (ENA) have formed a <u>Memorandum of Understanding (MoU)</u> to support effective co-operation and understanding between ENA and EEA when dealing with issues of mutual interest. The intention is to facilitate an integrated relationship between the two associations by promoting co-operation and communication on relevant issues.

The purpose of the MoU is to set out the key areas of activity for each organisation thereby enabling collaboration, efficient engagement and avoiding duplication of effort and enabling each organisation to work effectively to support their member's interests.

#### 2.3 Safety Standards and Procedures Group (SSPG)

Key elements of the SSPG Terms of Reference and a list of members is on the EEA website.

Dave Hammond has recently resigned from the group. Dave's contribution to the SSPG has been extensive and is greatly appreciated.

Phil Marsh has been appointed as a replacement distribution representative. Phil moved to NZ in 2003 having worked in UK electricity and telecommunications for 30 years. His first 15 years were spent as a high voltage technician with his work centred on primary plant with voltages of up to 132 kV. This was followed by work on telecommunications, then project management. Account and network operating management followed. A return to his electricity roots beckoned on arrival in NZ where he signed on with Powerco. His engineering versatility has been tested across the company in protection, communication and asset management. During a brief secondment as control room manager, Phil realised real-time management of an electricity system was an attractive option and he became Powerco's Network Operations manager.

The SSPG is continuing to work to deliver the outputs identified in its current <u>Business Plan (2018-2019)</u> as set out in section 3.1, along with any revised priorities.

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

#### 2.4 National Committee on Live Work (NCLW)

The NCLW is the key industry group for discussion, collaboration and resolution of national issues affecting live line work and live work on assets in the electricity supply industry. Their Terms of Reference and a list of members are on the <u>EEA website</u>.

The NCLW have a significant ongoing programme of work particularly focused on LV Live work within the electricity supply industry and supporting implementation of existing HV Live Line Guides.

The Guide for LV Work Method Selection has been consulted with industry and Worksafe and NCLW are working their way through amendments and additions. NCLW are also finalising fourteen standard national HV Live Line procedures using glove and barrier techniques. These guides/documents are well progressed and are expected out for final review/consultation by April 2019.

NCLW is also working jointly with the SSPG on a LV Work Control Methods project and this includes extensive consultation with industry stakeholders.

Other NCLW initiatives include:

- Supporting implementation of the Guide for the Assessment of Work Methods to
  Undertake HV Overhead Line Work and the EEA Practice Note on ECP 46
- Reviewing and updating the Live LV 'Practice' Guide
- Monitor and liaise with international Live Line Forums to ensure NZ is aligned with industry best practice for live work - including a joint Australia/NZ project on Testing Standards and requirements for HV LL equipment
- Standards for training/maintenance of HV and LV LL competency.
- Audit Guidance on audit frameworks for live LV, HV and testing.

 Organising the 2019 Live Work annual workshop to update developments, share learnings and promote best practice.

#### 2.5 Asset Management Group (AMG)

The role of the Asset Management Group (AMG) is to work with the electricity supply industry to facilitate, coordinate and lead the enhancement of asset management planning, practices, knowledge and performance through self-regulation, recognised systems and sound engineering practice principles. A key objective of the AMG is to provide a working level forum delivering practical advice and guidance to improve industry understanding, support decision making, planning and the management of issues around asset management.

The AMG current work priorities include:

- Work on 'Asset Criticality' guidance is well progressed and is expected to be available in
  June 2019 as part of the Asset Management Forum at the EEA Conference
- Power System Earthing Guide: this guide was consulted on in November and the working group is going through the industry feedback. The guide should be published mid-2019
- EV charging group: a working group was formed and drafted the EEA submission to
  WorkSafe on the EV public charging guidelines (February 2018)
- Work on 'Asset Management for Resilience' guidance is planned for 2019
- Arc Flash Guide: this guide was completed and published in September 2018
- Connection Small-Scale Inverter-based Distributed Generation: An interim guide was completed and published in July 2018
- Metering Safety: Good Practice Guide: this guide was completed and published in September 2018

The AMG <u>Terms of Reference and a list of members</u> are on the EEA website. For further information contact <u>admin@eea.co.nz</u>.

#### 3. EEA SAFETY INITIATIVES

#### 3.1 SSPG Business Plan

The key outputs for the SSPG, as per its Business Plan, for 2018 are:

- 1. In consultation with the ENA and StayLive, and working with the NCLW, develop robust industry guidance for effectively managing LV work. SSPG will take the lead for de-energised work.
- 2. Produce technical guidance for the preparation of instructions and ensuring effective communication between all relevant parties before and during switching operations.
- 3. Produce guidance on decision making for field staff working alone.
- 4. ESI Critical H&S Risks:
  - complete work to determine that the identified critical risks are adequately covered in the SM-EI and existing guides;
  - identify the critical work-related health issues in the ESI;
  - ensure guidance on high level controls exist to help effectively manage the risks
  - develop further guidance and advice where shortfalls are identified.
- 5. Develop further guidance in support of the SM-EI, including:
  - Revitalisation Project / SM-El review
- 6. Support improvements in accident/incident reporting.
- 7. Identify emerging H&S issues from new technologies and assess the need for coverage in the SM-EI.
- 8. Identify and prepare solutions for key issues to be included and/or reviewed in SM-EI 2020.

#### 3.2 Industry Critical Risk Areas

In line with the EEA's role in supporting Directors, CEOs and other senior officers, the EEA is developing guidance to help them discharge their due diligence obligation under the Health and Safety at Work Act 2015 in relation to ESI critical risks.

The 10 critical risks identified are:

ElectricityTraffic Management

Work at Heights
 Hazardous materials (including asbestos)

DrivingConfined Spaces

Asset Failure
 Work-related ill-health

Mobile Powered Plant
 Lone Working

This work continues and builds on the work last year to agree the ESI critical risks. Development of guidance to support officers to fulfil their due diligence obligations will conclude this year. A working group is engaging with industry with a focus on senior leaders to complete the development process.

#### 3.3 Back to Basics Campaign Update

Remains an underlying focus for the EEA. Incident information from industry reinforces the value of getting the basics right. The 'Non-Negotiable Safety Requirements' adopted by the EEA are listed on the inside cover of the SM-EI books, being;

Test for safety
 Isolate, prove de-energised and earth HV equipment prior to work
 Implement or apply safe work practices to live LV work
 Ensure protection from voltage difference
 Determine poles or pole structures are safe to climb

There are now <u>dedicated pages on the EEA website</u> and it is intended to provide links to EEA member company activities that support the initiative.

The resources including logo's and supporting material such as a flyer and poster are now available through the link above.

#### 3.4 Key Performance Indicators

6 Ensure fall arrest or restraint

The EEA Annual <u>ESI Safety Performance Indicators Report</u> gathers information on total recordable injuries to industry workers and contractors. The 2017/18 report is available for participating corporate members via the website. The latest report includes new lead indicators focusing on Systems, Resources and People.

The report also includes data on lost time due to work-related ill health, which meets one of our strategic objectives for health and enables businesses to set targets around this and benchmark against each other.

Key findings in the 2017/18 report are:

- i. Zero fatalities for five consecutive years
- ii. The 2020 target of reducing the Lost Time Injury (LTI) frequency rate by 25% has been achieved
- iii. 35% of all LTIs resulted in more than one week off work (last year it was 42%)
- iv. The most common injury for significant events was muscle strains while lifting or reaching

#### 3.5 Accident and Incident Notices

#### **Reported Events**

Reports of <u>accidents and incidents</u> are posted on the EEA website. Readers are reminded to check the EEA web site 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.

#### Reporting New Events

To be able to publish accident and incident notices the EEA needs to be notified of their occurrence. Businesses are encouraged to ensure that they are providing summary information to the EEA so that relevant information can be disseminated to industry. Business identification is not published unless by agreement, and the EEA website limits access to the reports to members only. The EEA has prepared a <u>Safety Alert Reporting Template</u>, which enables quick provision of information.

#### 3.6 Professional Development Award Report

The 2018 Professional Development Award <u>report by Graeme Johnson</u> (Electrix) is available on the EEA website. Graeme travelled in the United States to attend the National Electrical Contractors Association conference and the International Lineman Safety Conference and Rodeo.

#### 3.7 EEA Safety Awards 2019

Ahead of our conference each year, we encourage industry to tell us about it's successes in health and safety and they may receive an award. The following awards are available:

- The EEA Workplace Safety Award is open to all ESI safety stakeholders including the generation, networks, field contracting, consulting and equipment supplier sectors of the electricity supply industry. The Award is to recognise excellence in health & safety including achievement or contribution to workplace safety by an organisation or individual.
- The EEA Public Safety Award recognises excellence in fostering public awareness and education about electricity safety and safety around electricity supply assets. The award is jointly sponsored by the Ministry of Business, Innovation & Employment (MBIE) and the EEA.

For more information on the awards, including how to enter, please visit our website: EEA Awards.

#### 3.8 EEA Professional Development Award 2019

The EEA Professional Development Award supports the attendance of an EEA Member or staff member of a Corporate Member at an overseas course, conference or other professional development opportunity. The award is a contribution of up to \$NZD5,000 toward travel and accommodation expenses. Entries close at 5pm on Friday, 10<sup>th</sup> May 2019. For more information on the award including how to enter, please see our website: Professional Development Award.

#### 3.9 Conference

The 2019 EEA Conference will be held in Auckland on 25-27 June 2019 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.

See our website for more information and to register: EEA2019.

#### 4. EEA TECHNICAL GUIDES AND ADVISORY BULLETINS

#### 4.1 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.

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.

#### 4.2 Draft and Proposed Guides (Including Revisions)

#### **Draft Guides**

#### Switching Instructions and Communications Guide

A new Guide on switching instructions and communications has been drafted and is near completion. The Guide is intended for control engineers, supervisors and those involved in switching operations. The Working Party has completed its drafting, including requesting and reviewing industry consultation comments. The current draft was provided to the SSPG for review at its Nov meeting. Publication is expected in early 2019.

The Guide sets out the essential safety principles for switching instructions and associated communications and has been prepared to provide competent workers in the Electricity Supply Industry (ESI) with guidance on how to consider and control risks inherent with switching operations. 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.

Industry consultation closed in mid-October 2018.

#### Guide for Selection of LV Work Method

The NCLW has prepared a draft guide for the selection of a work method for LV. The Guide is based on the same principles as the HV Guide, i.e. determining when to work live.

The Guide has been prepared to assist PCBUs within the electricity supply industry to apply a transparent structured risk assessment approach to determine the appropriate work method to undertake Low Voltage work. Specifically, to help determine, based on a balance of risk, the selection between a de-energised work method or a live work method to undertake work on LV lines, cables or associated equipment. In both cases, the work method must be selected in accordance with the requirements of the HSW Act. Industry consultation closed in late November 2018.

#### Standard Procedures for Live Work

The NCLW is preparing a draft set of national procedures for Glove and Barrier procedures relating to common live work activities. The draft procedures under consideration will be consulted with stakeholders and include:

- Replace (remove & install) an OPEN air break switch (ABS) using one mobile elevating work platform (MEWP)
- OPEN ABS Maintenance
- Replace CLOSED ABS
- Maintain a 3-Phase ABS up to 33kV
- Energise a Single or 3 Phase Overhead Line up to 33kV at a Pole (more than/less than 1.6 km)
- Install Temporary inline isolator
- Install Fused (Drop Out Fuse (DOF's)) In-Line Temporary Break
- Replace Pin or Post Insulator on an Intermediate Pole up to 33kv
- Connect DOF or Isolator Up to 33kv
- Replace DOF/Isolator CLOSED
- Tighten Line Hardware
- Loss of Conductor during Live Line Glove Barrier Work
- Replace a Non-Tension Connection or Jumper

Maritime New Zealand (MNZ)/EEA Guide to Safety Management for Power Line Crossings of Navigable Waterways and Slipways

MNZ has contacted EEA regarding a review of the joint Maritime NZ / EEA Guide to Safety Management for Overhead and Underground Power Line Crossings of Navigable Waterways and Slipways (2006).

The review is nearly complete, and the Guide will be re-published in early 2019.

#### **Proposed Guides**

The EEA, SSPG, NCLW and AMG identify in their Strategic Plan and current work-plan the Guides and publications which are a priority for review or preparation (See 3.1 above).

#### 4.3 Recently Released or Updated Guides or Advisory Bulletins

The EEA has published two revised Guides since the previous Newsletter.

#### Arc Flash Guide

A revised Arc Flash Guide has been published. The guide is provided to improve the understanding of, and the ability to manage, arc flash hazards for the wider electrical industry.

The Guide covers:

- A description of arc flash and factors that contribute to arc flash hazards
- Options for analysing arc flash hazards
- Application of risk assessment to arc flash hazards
- Arc flash specific mitigation options and how these apply to a robust hierarchy of control measures
- Legislation, standards and guidelines that apply to arc flash hazards.

The review of the guide led to some of the following changes:

- Additional detail regarding the nature of arc flash hazards
- Updated references due to changes in legislation, standards and other relevant codes
- Reference to the Health and Safety at Work Act 2015 and alignment with the EEA Safety in
  Design Guide
- Addition of methodologies for calculating arc flash incident energy
- Inclusion of case studies.

#### Guide for ESI Use of Mobile Plant

The Guide for Electricity Supply Industry Use of Mobile Plant was issued to provide guidance to Electricity Supply Industry (ESI) employees on the use of mobile plant near live conductors, with some additional general requirements. The Guide was first published in January 2014.

The revision of November 2018 principally contains amendments resulting from;

- Enactment of the Health and Safety at Work Act 2015 and its regulations
- SM-El July 2015 published
- General review of language and requirements resulting from new legislation and SM-EI amendments, and to improve clarity.
- Consistency of terms used in the Guide with those in legislation and SM-EI
- Additional risk advice on striking a cable.
- Minimum number of outriggers on a Mobile Elevated Work Platform (MEWP) deleted to be consistent with SM-El amendment.
- Additional earthing requirements, particularly the use of dedicated earthing lugs.
- Reference to mobile plant use in vegetation control work being covered in the separate Guide for Non-Electricity Supply Industry Employees Using Mobile Plant Near Power-lines and Electricity Cables has been removed.

The Guide provides information about:

- Acceptable practice for field-users for avoiding electrical hazards while using mobile plant/vehicles near live conductors for both overhead lines and in switchyards, and near cables.
- Acceptable management standards and practice in support of field users.
- Guidance on maintenance of mobile plant.

#### Guide for Non-ESI Use of Mobile Plant

The Guide for Non-Electricity Supply Industry Use of Mobile Plant Near Power Lines and Electricity Cables was first published in February 2013. The November 2018 review of the Guide principally contains amendments resulting from;

- Enactment of the Health and Safety at Work Act 2015 and its regulations
- SM-EI July 2015 published
- General review of language and requirements resulting from new legislation and SM-EI amendments, and to improve clarity.
- Consistency of terms used in the Guide with those in legislation and SM-EI
- The Guide now applies to the use of mobile plant where there may be indirect contact with overhead power lines or underground electricity cables, such as when trimming vegetation or felling trees.
- Expanded guidance on step and touch potentials.
- Warning on implication of height of agricultural equipment in operational mode in conjunction with lesser mandatory line height across paddocks.

- Need to avoid contact with guy wires to avoid inadvertent structure loading
- Additional guidance on mobile plant at >4m from power line but where contact could occur.
  Includes specific emphasis on vegetation work.
- Guidance added for when temporary earthing is impracticable.
- New section on induced voltage minimisation included. (Section 12)

The EEA, representing the Electricity Supply Industry (ESI), has compiled the Guide to help PCBUs, employers, principals, workers, and others:

- to better understand the electrical hazards of overhead power lines and underground electricity cables,
- how to better identify and avoid or control these electrical hazards and risks,
- to understand acceptable practices if the work activity does compel the use of plant or vehicles in the vicinity of electrical hazards.

The over-arching requirement in this Guide is that all non-electricity supply industry businesses and/or their workers who plan to do work close to any overhead power line or underground electricity cable must always seek advice and gain approval as appropriate from the power line or cable owner before starting any work close to a power line or cable.

#### Guide for Portable Equipment for Work On or Near Conductors

The EEA has completed a review and update of the *Guide to Portable Equipment for Work On or Near Conductors*. The 2018 version replaces the previous 2012 publication.

The Guide offers guidance and clarifies issues and requirements relating to;

- terminology;
- purchase specifications;
- the inspection and testing requirements of portable equipment used on;
  - o high voltage conductors for the purpose of isolation, testing, and earthing; and
  - o low voltage conductors for temporary insulation.

#### Key amendments are:

- Updated legislation wording
- Updated SM-EI wording
- Updated references to Standards
- New requirement in s3.4 re before use inspection of gloves
- New requirements in s5.2(e) re cable length of portable earths
- New requirement in s5.5 re inspection of spring loaded clamps
- Specific leakage current criteria for operating sticks added.

#### Guide for Transport of High Loads

The SSPG has reviewed the Guide in conjunction with the Heavy Haulage Association. The Guide is being approved by the EEA Executive prior to its publication, which will be in January.

The Guide, originally published in September 2008, was revised in 2015 (unpublished) and in 2017/2018 to update its references due to changes in legislation since 2008. 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.

#### **Metering Safety**

The Metering Safety: Good Practice Guide was commissioned in 2010. The original guide was developed at a time when there was a significant amount of installation and upgrade work progressing, with a widespread rollout of advanced metering technology.

The purpose of the guide is to document safety related good practice in installing, upgrading and maintaining customer metering installations.

The review of the guide led to the following changes:

- updated references due to changes in legislation, standards and other relevant codes
- reference to the Health and Safety at Work Act 2015
- alignment with the requirements of AS/NZS 3000 with respect to overload protection of consumers mains
- updated explanation of industry roles and relationships as a result of restructured government departments
- acknowledgement of advances in technology, such as smart meter wireless technology for meter reading
- emphasis on the safety benefits of eliminating split neutrals in favour of shunt neutral configurations

- detailing the installation of an isolator on the line side of the meter to allow for the meter to be worked on or changed safely
- removal of material now considered to be redundant as the industry has developed (i.e. detailed auditing information).

#### 5. WORKSHOPS & COURSES

#### 5.1 EEA Health and Safety Workshop

The EEA Safety Workshop for 2018 was held in Wellington on 10<sup>th</sup> and 11<sup>th</sup> October. The presentations made are available on the EEA website: Safety Forums.

#### 5.2 EEA Live Work Workshops

The EEA Live Work Workshop for 2018 was held in Christchurch in September. The presentations made are available on the EEA website: Live Work Forum.

#### 6. LEGISLATION AND REGULATORY UPDATE

#### 6.1 Health & Safety at Work Act 2015

Since the commencement of the Health and Safety at Work Act there have not been any amendments. WorkSafe has periodically introduced guidance material, which is available on the WorkSafe website.

#### 6.2 Health and Safety at Work (Hazardous Substances) Regulations

WorkSafe publishes substantive information on the Hazardous Substances regulations and the changes on its website: Information-Guidance.

WorkSafe recently advised that a specific and deliberate change in the regulatory requirement under the Hazardous Substances Regulations effective from December 2017 is the capacity of secondary containment systems for intermediate bulk containers (IBCs), as defined in chapter 6.5 of the United Nations Recommendations on the Transport of Dangerous Goods (UNRTDG). Secondary containment provisions are prescribed in regulations 10.33 (classes 3 and 4), 12.16 (class 5.1.1), 12.41 (class 5.2) and 13.33 (classes 6 and 8) and require the capacity of the secondary containment to be based on the pooling potential. Anyone using IBCs needs to review the secondary containment requirements.

#### 6.3 Development of Regulations to Support HSW Act

The Ministry of Business, Innovation and Employment (MBIE) has posted new information on the development of regulations to support the HSW Act. The specific information is accessible at: <u>Health</u> and Safety Reform.

The information is a statement of intent rather than detail, and indicates the areas which MBIE will focus on. It also indicates that the reform is still a multi-year programme. The information advises that MBIE has worked with WorkSafe and key stakeholders to identify the initial priority areas, which are;

- Plant and structures, including:
  - o working at heights and excavations
  - o work machinery, equipment and tools
  - o mobile plant such as tractors, quad bikes and elevated work platforms
  - o existing regimes for boilers, cranes, fairground rides etc
- Risks for young people doing hazardous work
- Mining and quarrying (post-implementation review)

MBIE expects to publish a discussion paper on the Plant & Structures regulations early in 2019.

#### 7. GUIDES ISSUED BY REGULATORS AND OTHER PARTIES

# 7.1 Safe Work Instrument (SWI) — Validity Periods of Compliance Certificates for Stationary Container Systems

WorkSafe has published a new Safe Work Instrument (SWI) titled *Health and Safety at Work (Hazardous Substances – Validity Periods of Compliance Certificates for Stationary Container Systems) Safe Work Instrument 2018*, which came into force on 1<sup>st</sup> August.

The SWI specifies the validity periods of compliance certificates for the stationary container systems described in the Schedule of the SWI for the purposes of regulation 17.92(1)(ca). The Schedule addresses, amongst other tanks, below ground tanks up to 120,000 litres (not supplying a burner or stationary engine), single skin above ground stationary tanks up to 250,000 litres with 110% secondary containment, (not supplying a burner or stationary engine), movable stationary tanks, stationary double skin tanks (not supplying a burner or stationary engine), and stationary tanks supplying a burner or stationary engine with or without a service tank. The Schedule also covers stationary container systems including process containers.

#### 7.2 Safe Work Instrument - Hazardous Substances That Do Not Require Tracking

WorkSafe has published a new SWI titled the *Health and Safety at Work (Hazardous Substances That Do Not Require Tracking) Safe Work Instrument* 2018. The SWI came into effect on the 1<sup>st</sup> December 2018. The SWI provides that premixed 2-stroke fuel (HSNO approval number HSR101281) does not require tracking.

#### 7.3 Guide for Businesses - Hazardous Substances That Activate Key Safety Controls

WorkSafe has published a guide for businesses to cover <u>hazardous substances that activate key safety</u> controls.

#### 7.4 Asbestos Quick Guides for Tradespeople

WorkSafe has launched four new guides designed to help tradespeople quickly understand their responsibilities and manage the risks when working with or near asbestos. Each guide is a one-stop information resource that covers:

- the risk of working with or near asbestos
- the difference between friable and non-friable asbestos
- where asbestos is likely to be found in New Zealand homes and other buildings
- the key ways to ensure protection when working with asbestos
- how to dispose of asbestos waste
- workers' rights and responsibilities.

#### 7.5 Good Practice Guidelines: Health and Safety by Design

WorkSafe has published Good Practice Guidelines titled a *Guide to Health and Safety by Design*. These are for PCBUs with a role in designing structures, plant or substances to help them to consider health and safety when designing plant, structures or substances. The key points addressed by the Guidelines are:

- Designers have an important role in managing health and safety risks.
- There are key principles of Health and Safety by Design that designers should follow.
- There are specific things to consider when designing structures, plant or substances.

#### The Guidelines:

- begin with general concepts that cover the Health and Safety at Work Act 2015 (HSWA)
- look at the key principles of Health and Safety by Design
- describe Health and Safety by Design what's good practice when considering the design of structures, plant and substances.

The Guidelines are based on guidance produced by Safe Work Australia and are available at: H&S by design.

#### 7.6 WorkSafe Noise Toolkit

WorkSafe has launched a set of tools for both employers and workers to use to <u>manage noise in the</u> workplace.

WorkSafe advises that under health and safety legislation, employers and their businesses or organisations are responsible for managing work risks. This includes the risk of hearing impairment and other health harms from exposure to excessive noise.

The new WorkSafe tools include guidance material and educational videos. WorkSafe advises that it has also increased its inspectorate's capacity and capability to look at noise in the workplace through training and development of a new tool to help them assess noise risks when they go into a workplace.

#### 8. Safety Manual – Electricity Industry (SM-EI)

#### 8.1 SM-El General

An electronic version of SM-EI is available. Details can be found on the EEA website: <u>SM-EI Electronic</u> version.

#### 8.2 Revitalisation Project / SM-El 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.

#### 8.3 Interpretations and Clarifications

No formal interpretations relating to SM-EI matters have been issued since the previous Newsletter (Formal interpretations are posted on the EEA website at: <u>SM-EI Interpretations</u>).

In addition, 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;

#### Interpretations

Nil

#### Clarifications

#### Access and Test Permits, separate pieces of equipment on the same pole

Q1. In the instance where a new cable has been installed and terminated part way up an existing pole with live HV overhead but the cable termination is not physically connected to the line i.e. missing jumpers, can a test permit be held on the cable and an access permit held on the overhead line above?

#### **SSPG Response**

The SSPG considered that a test permit can be held on the cable and an access permit on the line as they can be treated as two separate pieces of equipment, providing the intent of the work is not to connect the pieces of equipment together. It should be noted that rule 3.511b also applies and states that access permits must be withdrawn if the work on the line could be affected by the work carried out under the test permit. The SSPG also noted that it would be prudent to plan and use the test and access permits at different times (issue one after cancellation of the other).

Q2. Can a new piece of equipment be connected to the network under a test permit assuming all the isolations and earths are suitable?

#### **SSPG Response**

The SSPG considered that an access permit should be required to make the connection.

Q3. Can the recipient determine the best physical location of the issuer earths and inform the issuer of their location to ensure this is a suitable isolation for the permit or do the issuer earths always have to be predetermined?

#### SSPG Response

The SSPG noted that rule 3.405b applies. Also the recipient cannot relocate issuer applied earths after permit issue unless they hold a relevant test permit, but they can add additional earths.

Q4. Is a person able to hold more than one permit?

#### SSPG Response

There is nothing in the SM-EI's which prevent this but this was not considered good practice. The SSPG noted that in a switchyard, the SM-EI requires the recipient to be a member of the workparty. There is also a requirement that an access permit for a switchyard must be for a single switchyard only. The SSPG agreed that there are circumstances where a recipient would need to return permits or not uplift them if they are working under a test permit or under an access permit in a switchyard.

#### SM-EI 3.703

**Inquiry.** In 3.703 a. it states, "These distances apply to any part of the employee's body or clothing and to anything in contact with the employee, e. g. tools, ladders, mobile scaffold and scaffold poles (except live line tool, measuring poles and voltage detectors)".

We have had a particular instance where a person was removing vegetation from inside a transformer box, the vegetation was both within and outside the Minimum Approach Distance (MAD), which means that as the person takes hold of the vegetation to pull it he is breaking the MAD. The problem is the examples given are all tools, this leads us to believe that the intent was not that 3.703 should apply to anything but to anything being introduced to the MAD rather than a naturally occurring item being removed.

#### SSPG Response

The SSPG determined that the requirements are not clear and this will be considered in the next review of the SM-EI.

#### SM-EI 2.905 Mobile Plant in the vicinity of live conductors

The SSPG considered if temporary earthing was required for mobile plant in the field encroaching the MAD of overhead conductors.

The **SSPG response** was that earthing is required if the potential exists for encroachment of the MAD using an earth driven spike.

#### 9. Surge Arrestors

Anecdotal information is being collated that suggests that some surge arrestors may contain an explosive charge which is activated by the lightning strike. If so, the explosive will be subject to the HSW (Hazardous Substances) Regulations and controls will apply, including to the disposal of any undischarged cartridges.

Further information will be provided as it becomes available.

#### 10. WorkSafe Alert on Use of Remote Control Units

WorkSafe has published an alert on the failure of two remote control units which resulted in unplanned movement of large machinery. While the failures occurred on mining and quarrying plant, the learnings may be applicable to other mobile plant. The alert is available at: <u>Unintended-track-movement-due-to-remote-control-unit-failure</u>.

The alert describes the two incidents, neither of which resulted in injury but with a high potential to do so. One incident resulted from water ingress into the remote due to small tears in the overlay even though it was IP66 rated. The other incident resulted from two remotes in the same vicinity operating on the same frequency.

#### 11. Unauthorised Version of AS/NZS3000:2018 Wiring Rules

There are reports of a document circulating on social media purporting to be the new edition of the AS/NZS 3000:2018 *Electrical installations* (known as the Australian/New Zealand Wiring Rules). This document is not authorised by Standards New Zealand.

#### EEA SAFETY STANDARDS AND PROCEDURES GROUP (SSPG) | FEBRUARY 2019





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