



## 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)

### NEW AND REVISED GUIDES

The EEA has published two Guides

- Guide to Overlapping Duties Under the HSW Act (Published as an interim Guide)
- Guide for Supervision for Health and Safety (Previously published as an interim Guide)

(SEE SECTION 4.3)

### DRAFT GUIDES

The EEA has prepared drafts of revised and new Guides, some of which are yet to go to industry consultation.

- Arc Flash
- Mobile Plant (ESI)
- Mobile Plant (Non ESI)
- Transport of High Loads
- Switching Instructions
- Portable Equipment

(SEE SECTION 4.2)

### WORK SHOPS

Regional workshops are being planned for August to cover a range of SM-EI related topics.

(SEE SECTION 5.2)

### 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 8.2.

(SEE SECTION 8.2)

### LINK BETWEEN TRICHLOROETHYLENE AND PARKINSON'S DISEASE

An article on the link between trichloroethylene and Parkinson's disease is included.

(SEE SECTION 10)

**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

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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](mailto:admin@eea.co.nz). A keyword index for this and previous Newsletters is available on the EEA website.

## 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)

Key elements of the [SSPG Terms of Reference and a list of members](#) is on the EEA website.

Stephen Hull has resigned from the group. Stephen's contribution to the SSPG has been extensive and is greatly appreciated.

Gerry Versteeg has been appointed as a replacement generation representative. Gerry has 35 years in the thermal power generation industry completing a mechanical trade apprenticeship in power station maintenance and construction with the last 30 years involved in all aspect of thermal power plant operation. His current role is as the Control Centre Manager at Huntly where he leads two of the four Operations shift teams. He is also responsible for the management of Operations operating procedures and Job Safety Analysis (JSA) documentation.

The SSPG is continuing to work to deliver the outputs identified in its current Business Plan (2018-2019) as set out in section 3.1 below.

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

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

The role of the National Committee on Live Work (NCLW) is to be the authoritative industry body for discussion and resolution of national issues affecting live line work and live work on networks in the electricity supply industry.

The NCLW Terms of Reference have been reviewed and the committee has been reconstituted. The NCLW [Terms of Reference and a list of members](#) are on the EEA website. The NCLW welcomes feedback from industry and other stakeholders. All enquiries should be made to the EEA ([admin@eea.co.nz](mailto:admin@eea.co.nz)).

The workplan for 2018 will involve extensive consultation with industry stakeholders on the following areas:

1. High Voltage (HV)
  - Supporting implementation of recent key documents
    - Guide for the *Assessment of Work Methods to Undertake High Voltage Overhead Line Work*
    - EEA Practice Note on *New Zealand Electrical Code of Practice 46 for High Voltage Live Line Work* (ECP 46)
  - Develop a live work “exclusion list” identifying high risk assets/procedures
  - Develop standard national HV Live Line procedures – set up a working group to progress this work
  - Monitor and liaise with international Live Line Forums to ensure NZ is aligned with industry best practice for live work
2. Low Voltage (LV)
  - Developing a Guide for LV Work Method Selection
  - Developing LV Work Control Methods (with SSPG)
  - Reviewing and updating the Live LV ‘Practice’ Guide
3. Quality Management
  - Standards for training/maintenance of Live Line (LL) competency
4. Testing standards and requirements – LV, HV equipment
5. Audit – Guidance on audit frameworks for live LV, HV and test
6. Arrange annual workshop to update developments, share learnings and promote best practice

## 2.4 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:

- *Arc Flash Guide* – it is expected that the final revision of the guide will be published in August, pending final approval
- *Metering Safety: Good Practice Guide* – it is expected that the final revision of the guide will be published in August, pending final approval
- *Power System Earthing Guide* – expected release for industry consultation in June, pending approval of the AMG
- *Electric Vehicle (EV) charging group* – a working was formed and drafted the EEA submission to WorkSafe on the EV public charging guidelines (February 2018).
- Work on 'Asset Criticality' guidance is planned for 2018
- Work on 'Asset Management for Resilience' guidance is planned for later in 2018
- Rollout of *Overhead Line Designers' Forums*. Pilot was held in Christchurch earlier this year, with a follow up forum scheduled for October. Forums are proposed for the North Island later in 2018.

The AMG [Terms of Reference and a list of members](#) are on the EEA website. For further information contact [admin@eea.co.nz](mailto:admin@eea.co.nz).

## 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 Electricity Networks Association (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. Electricity Supply Industry (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:
  - SM-EI On-line assessment tool
  - Pictorial guides for front line workers
6. Support improvements in accident/incident reporting.
7. Identify emerging Health and Safety (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 in the ESI to discharge their due diligence duties under the Health & Safety at Work Act, the EEA is developing a database of the critical H&S risks faced by the ESI, including work-related health risks. The purpose is to demonstrate that the industry has identified and understands its common safety critical “raw” risks (i.e. before controls are in place). It will also help to ensure that those risks are being adequately addressed at an industry level in key industry documents such as the Safety Manual - Electricity Industry (SM-EI) and supporting EEA Guides; such that the risks (when individual company risk mitigations are applied) are significantly reduced. The information will also assist in ensuring that the EEA guidance issued to date and in the future provides a common understanding of these risks and what may be considered as appropriate levels of control.

The 10 critical risks identified are:

- |                        |  |
|------------------------|--|
| – Electricity          | – Traffic Management                       |
| – Work at Heights      | – Hazardous materials (including asbestos) |
| – Driving              | – Confined Spaces                          |
| – Asset Failure        | – Work-related ill-health                  |
| – Mobile Powered Plant | – Lone Working                             |

Work is currently progressing on tabulating the critical risks with existing industry control measures and improvement initiatives for publishing on the EEA website.

### 3.3 Back to Basics Campaign Update

The 'Non-Negotiable Safety Requirements' adopted by the EEA are listed on the inside cover of the SM-EI books, being;

- 1 Test for safety
- 2 Isolate, prove de-energised and 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

There are now [dedicated pages on the EEA website](#) 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

The EEA is currently involved in a number of initiatives that aim to assist the industry in monitoring its safety performance as well as reducing serious harm to both industry workers and the public.

#### Occupational safety reporting

The EEA Annual ESI [Safety Performance Indicators Report](#) gathers information on total recordable injuries to industry workers and contractors. In 2017, EEA launched a review of the existing occupational health and safety report, with the objective to broaden its scope and provide a more accurate picture of industry performance. The focus was placed in particular on developing industry-wide leading safety measures. Five different leading indicators focusing on Systems, Resources and People have been proposed for industry-wide reporting and with SSPG approval will be implemented from July 2018.

#### Public safety reporting

In 2017, the joint EEA/ENA Public Safety Working Group started gathering [high-level leading and lagging measures](#) relating to public safety. Historical data from Energy Safety provide trends for 1998-2015.

### Work-related ill health

As part of future developments, EEA aims to collate data on work-related health risks to ensure that they are being effectively managed. As stated in the industry's Health and Safety Strategy, by 2020 systems will be in place to collect data on lost time due to work-related ill health in the electricity supply industry to be able to measure performance and set targets for improvement.

## 3.5 Accident and Incident Notices

### Reported Events

Reports of [accidents and incidents](#) 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 [Safety Alert Reporting Template](#), which enables quick provision of information.

## 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

##### Arc Flash Guide

An industry consultation has been held on the revised draft of the *Arc Flash Guide*. The draft has been edited in response to the feedback received, and the final publication is scheduled for July/August pending final approvals.



### Guide for ESI Use of Mobile Plant

The SSPG has finished its initial review of the Guide and it was issued for industry consultation early in 2018. Industry feedback is currently being evaluated and incorporated.

### Guide for Non-ESI Use of Mobile Plant Near Power Lines and Electricity Cables

The SSPG has finished its initial review of the Guide and it was issued for industry consultation early in 2018. Industry feedback is currently being evaluated and incorporated.

### Guide for Transport of High Loads

The SSPG has reviewed the Guide in conjunction with the Heavy Haulage Association. It is expected to be issued for industry views in mid-2018.

### Switching Instructions and Communications Guide

A new Guide on switching instructions and communications is being prepared to document procedures to ensure effective communication between all relevant parties before and during switching operations and includes a description on how switching instructions are prepared and approved. The Guide is intended for control engineers, supervisors and those involved in switching operations.

The Working Party is well advanced with a draft, which was provided to the SSPG for review at its May meeting. The Guide will be published for industry consultation in mid-2018.

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

The SSPG has reviewed the Guide and published it for industry consultation, with comments due by late May. The Guide should be published in mid-2018.

### Guide for Selection of LV Work Method

The NCLW is preparing a guide for the selection of a work method for LV. The Guide will be based on the same principles as the HV Guide, i.e. determining when to work live. The NCLW expects to have a draft ready for industry consultation in the third quarter (Q3) of 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

### MNZ/EEA Guide to Safety Management for Power Line Crossings of Navigable Waterways and Slipways

Maritime New Zealand (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). They have asked the EEA to consult with members to see if there are any changes the industry want to suggest for the document. MNZ have completed their review of the Guide, which resulted in them updating contact details, dates and references relating to the Port and Harbour Marine Safety Code.

The EEA requests that members review the draft and advise any comments and suggested changes to [admin@eea.co.nz](mailto:admin@eea.co.nz) by Friday 28<sup>th</sup> June.

The draft is available on the EEA website: [Review of Joint Guide](#).

#### 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.

##### Guide on Overlapping Duties under the Health and Safety at Work Act

A *Guide on Overlapping Duties Under the Health and Safety at Work Act* has been published by the EEA as an interim Guide, to be reviewed in September 2018.

The 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 ESI on activities with respect to the duty to consult, co-operate with, and co-ordinate activities with all other businesses (Person Conducting a Business or Undertaking (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.

Suggestions on additional specific topic areas to be included are invited: [admin@eea.co.nz](mailto:admin@eea.co.nz).

### Guide for Supervision for Health and Safety

The *Guide for Supervision for Health and Safety* was published as an interim Guide in November 2017 with a review scheduled for May 2018. Following on from invitation to provide feedback on the interim Guide, the industry was asked for comment and submission on the Guide in April and the revised [Guide has now been approved for issue](#) in June.

## 5. WORKSHOPS & COURSES

### 5.1 EEA Health and Safety Workshop

The EEA Safety Workshop for 2018 is to be held in Wellington on 10<sup>th</sup> and 11<sup>th</sup> October. Details will be available on the EEA website.

### 5.2 Live Work Workshops

The EEA is holding a series of workshops on SM-EI and live work topics at multiple centres in August 2018 (week of August 13<sup>th</sup>). Details will be available on the EEA website.

## 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

The *Health and Safety at Work (Hazardous Substances) Regulations* came into force on 1<sup>st</sup> December 2017, with the exception of some regulations. These regulations replaced equivalent regulations published under the Hazardous Substances and New Organisms (HSNO) Act, and are made under the Health and Safety at Work Act because they relate to workplaces.

WorkSafe publishes substantive information on the new regulations and the changes on its website: [Worksafe-information-guidance](#).

Some regulations come into force on the 1<sup>st</sup> June 2018, including;

- Regulation 4.5 which requires PCBUs to provide information, training and instruction to every worker who uses, handles, manufactures, or stores a hazardous substance, including hazardous waste.

- The details of the information, training and instruction are set out in the regulation.
- A number of regulations which require a person to receive information, training, and instruction in accordance with regulation 4.5.
  - Where a compliance certificate is required, evidence of compliance with regulation 4.5 is required.
- Requirements for the storage of certain class 6.1 and 8.2 substances, e.g. concentrated acids, alkalis etc.

### 6.3 Health and Safety at Work (Asbestos) Regulations 2016

On the 4<sup>th</sup> April, the two-year window for industry, the regulator and training partners to implement changes created by the *Health and Safety at Work (Asbestos) Regulations 2016* expired. This means that the requirements in the Asbestos Regulations around managing the risks of asbestos are now in full force. This includes the requirement for asbestos management plans.

Regulation 13 of the Asbestos Regulations requires PCBU's with control of a workplace to ensure that a written asbestos management plan is prepared and kept up to date. The plan must be accessible to workers and others and include information on;

- The identification of asbestos or asbestos containing material (ACM)
- Decisions, and reasons, about the management of risk arising from the asbestos
- The workers who carry out work involving asbestos.

Regulation 14 of the Asbestos Regulations requires PCBU's with asbestos plans to review the plan, and, if necessary, revise the plan.

## 7. GUIDES ISSUED BY REGULATORS AND OTHER PARTIES

### 7.1 National Code of Practice for Utility Operators' Access to Transport Corridors Review and Seminar Series

The New Zealand Utilities Advisory Group (NZUAG) Inc will be undertaking a review of the *National Code of Practice for Utility Operators' Access to Transport Corridors* during 2018. A similar two-stage approach to the one used for the previous review in 2014 will be used, which will include an initial public submission round to identify areas where change to the Code may be required. This will be followed by a second round to obtain feedback on any proposed changes. The first submission round was launched at the *2018 Roving Infrastructure Management Support (RIMS) Forum* in Palmerston North on 21<sup>st</sup> and 22<sup>nd</sup> March, with submissions due by 20<sup>th</sup> April. Information relating to the review is on the [NZUAG website](#).

The NZUAG is specifically requesting feedback on;

- What within the Code works well
- What within the Code is not working
- How could compliance be improved

## 8. SM-EI

### 8.1 SM-EI General

An electronic version of SM-EI is available. Details can be found on the EEA website: [SM-EI Electronic version](#).

### 8.2 Interpretations and Clarifications

One formal interpretation relating to SM-EI matters has been issued since the previous Newsletter (*Formal interpretations are posted on the EEA website at: [SM-EI Interpretations](#)*).

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

#### Interpretations

##### Minimum Approach Distances

**Background** – In December 2017 a presentation was given to the Electricity Distribution Industry (EDI) H&S Forum on the topic of Minimum Approach Distance (MAD) tables applicable to the ESI. The essential question in the presentation was *‘Does the industry have three levels of MAD Competence?’*

An additional request was included in the presentation for a clarification regarding whether the consent of the line owner is required for SM-EI Rule 2.1201 MADs.

**SSPG Response** – The background to the difference between ECP 34 Table 9 and SM-EI rule 2.1201 MADs is that when SM-EI was being reviewed in 2004 the ESI wanted to provide increased MADs for those employees working to Part 2, but not as great as those in Table 9. ECP 34 uses the term ‘competent person’ and inherently it allows that there can be levels of competence, which is the concept that has been used for SM-EI. A person who is ‘non-competent’ can work to Table 9 provided they have been informed of the voltage of the conductor (which is what the ‘consent’ is for). In considering SM-EI rule 2.1201 the SSPG did not consider that employees working to SM-EI Part 2 were competent for rule 3.703 MAD’s. To facilitate the introduction of rule 2.1201 MAD’s a customised set of MAD’s was developed which were greater than rule 3.703 MADs, and had an accompanying requirement for ‘competence to Part 2’, rather than the ‘non-competent’ criteria of ECP 34. The table in the interpretation sets out the relevant MAD’s as set out in SM-EI and ECP 34.

In terms of SM-EI the industry has two levels of 'MAD Competence', as set out in rules 2.1201 and 3.703. However, industry participants can also use ECP 34 Table 9 MAD's should they wish to apply those to 'non-competent' persons working within the industry. The SSPG does not expect Table 9 MAD's to be applied to persons working on ESI assets as it expects those persons to have a higher level of training and competence.

With respect to the clarification sought on whether persons working to rule 2.1201 require the consent of the line owner, they do not require that consent because they are deemed 'competent' in accordance with ECP 34, but to a level that requires greater MAD distances than Table 10.

## Clarifications

### Term Definition

An inquiry was received from a Network Company suggesting that the term 'suspend' be introduced into the list of terms used with respect to permits to address the circumstance where a permit is returned but not cancelled. The SSPG confirmed that the term 'returned' already covers this concept and returning of a permit does not require it to be cancelled, i.e. the permit does not have to be cancelled as a result of it being returned.

### Cables Guide and Paper Insulated Lead Covered Steel Wire Armoured (PILCSWA) Cables

A network company requested clarification of a requirement of the *Guide to Safe Work With Cables* with respect to PILCSWA cables. They advised that one of their clients recognises the risk of opening PILCSWA cables while live and has adopted a procedure to de-energise them for this process. However, in order to limit the disruption to the supply to their customers, the procedure allows for re-livening of the cable for the balance of the jointing process. They then pointed out that Section 3.1 of the Guide now states, "*Live paper insulated lead covered (PILC) cables, both HV and LV, and pressurised cables must not be handled under any circumstance*".

The network company's recommendation in their comments on the Guide was that PILCSWA cables should not be moved while live and pointed out the risks of opening a wrongly identified cable. The SSPG considered the request for clarification of the meaning of 'handled' in section 3.1 of the Guide, and confirmed that the references to 'handled' in section 3.1 mean circumstances where the cable is moved or otherwise manipulated, e.g. to relocate, bend, straighten, etc and where the cable may suffer mechanical damage. The term 'handled' is not intended to apply to circumstances where the cable is fixed in place but the core or equivalent is being worked on; in these circumstances the term 'working on' applies.

The SSPG also drew attention to section 18 of the *Line Mechanics' and Cable Jointers' Handbook*, which covers jointing and terminating of cables.

### **MAD for Mobile Plant**

A request was received to re-consider the MAD applied to mobile plant when removing or installing pole mounted transformers, i.e. on 11 kV. The request was raised in a response on consultation on the Mobile Plant Guide. Other responders expanded the request to a consideration of all MADs.

SM-EI provides a minimum MAD for mobile plant of 1 m and the submission suggested a review to permit lesser distances.

The SSPG considered the request and confirms that it considers that the 1 m MAD should not be reduced. The SSPG also notes that MADs are specified in NZECP 34 and this is the base document that the SSPG uses for its adoption of MAD's for inclusion in SM-EI. The SSPG also refers to the ENA (Australia) document ENA NENS 04-2006. The SSPG advises that a review of MAD's is not advisable unless NZECP 34 is being reviewed and it is not aware of a time for this.

### **Inquiry Regarding MAD when Using LV Probes**

An inquiry was received related to the use of standard multi-meter probes potentially being in breach of the rules as a user would encroach the MAD for LV.

The SSPG advises that SM-EI rule 3.703b.ii. identifies that rules in SM-EI for LV work apply in preference to the MAD table. Therefore rule 3.717 takes precedence.

### **Interpretation of Rule 3.414(c)**

The SSPG was asked to consider the wording in Rule 3.414(c) concerning persons who may specifically enter permit areas. The current wording can be read to enable defined persons such as auditors to enter a permit area, including a roped permit area, without formally acknowledging that they understand and accept the recipient's requirements. The SSPG considers that the current wording enables the recipient to require formal understanding and acknowledgment. The wording will be reviewed in the next SM-EI review.

## **8.3 SM-EI On-Line Assessment Tool**

The SSPG is currently preparing an on-line assessment tool for SM-EI, with the tool to be hosted on the EEA website. Initially an assessment on knowledge of the *Blue book* is being undertaken.

The purpose of the assessment tool is to;

- Assist companies with assessing staff knowledge of Safety Rules
- Demonstrate consistent understanding throughout the country
- Be able to collate results to find gaps in knowledge
- Provide easy access for participants
- Provide quick results

Several different question types and interactions are to be used, including;

- Multi Choice
- Multi Answer
- True or False
- Sequence
- Matching
- Word pick
- Click map

The tool will additionally provide;

- Instant marking and results and feedback, including the issue of a certificate
- Results can be emailed to individual or company
- Results will be saved on EEA Learning Management System
- Results can be analysed to determine gaps in understanding

#### 8.4 SM-EI References Update

The following documents referred to in SM-EI have been updated, re-issued or revoked since the previous Newsletter was published.

Publisher	Publication Code	Document Number	Title	SM-EI Rule Reference
WorkSafe			<i>Workplace Exposure Standards and Biological Exposure Indices</i>	2.709, 2.711, 2.801, 2.806, 2.812, Sect 7 Bckgd

#### 9. International Conference on Live Maintenance (ICOLIM) Report

The report on the 2017 International Conference on Live Maintenance (ICOLIM) is available on the EEA website at: [ICOLIM-Report-2017](#).

#### 10. Link Between Trichloroethylene and Parkinson's Disease

Veterans Affairs' New Zealand has recognised that Parkinson's disease is linked to a toxic solvent used within the Navy, both on ships and on shore, and will now be paying disability compensation.

The Royal NZ Navy used a number of chemical solvents on ships from the 1950s onwards. Among the chemical solvents was trichloroethylene (TCE), which is thought to be among the most damaging to human health, with links to a number of adverse health effects including Parkinson's.

The link between exposure to the chemical solvent TCE and Parkinson's has also been recognised by the [U.S. Department of Veterans Affairs](#).

As a hazardous substance in New Zealand trichloroethylene has a hazardous substance classification of 6.7A for carcinogenicity (amongst other classifications).

SM-EI Rule 2.709 refers to non-flammable solvents, including chlorinated hydrocarbons such as trichloroethylene. While SM-EI recognises the use of trichloroethylene, its use will not be recognised

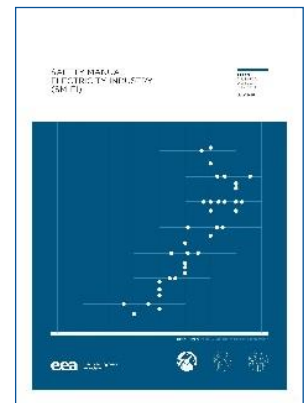


in the next edition of SM-EI, which will mean both carbon tetrachloride and trichloroethylene will not be recognised.

The November 2017 WorkSafe publication of the *Workplace Exposure Standards and Biological Exposure Indices* has reduced exposure limits for trichloroethylene, from 50 to 10 ppm for TWA, and from 200 to 25 ppm for STEL.

The EEA recommends that the industry phase out any use of trichloroethylene, and dispose of any remaining stocks.

## EEA SAFETY STANDARDS AND PROCEDURES GROUP (SSPG) | JUNE 2018



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