EEA SAFETY RULES NEWSLETTER

JUNE 2002

CONTENTS:

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1. Introduction

This Safety Rules Newsletter is the first for 2002. It provides an update on safety rules requirements, issues and interpretations, as well as an update on publications referred to in SR-EI and GSG-EI.

The newsletter is a communication channel between the EEA and the industry practitioners. Any questions, suggestions and points for consideration are always welcome. Thank you for the comments received after the last newsletter.

2. Ian Crabtree – Obituary

Ian Maxwell Crabtree, electrical engineer; b Auckland December 11 1928; ed Auckland Grammar, Canty Uni [BE Elect] 1952; joined State Hydro Dept 1951, principal supply engineer, NZ Electricity; 2001 Electricity Engineers' Association of NZ meritorious service award; d Wgtn May 28, 2002.

A few words can never do justice to Ian's fifty years of work within the NZ Electricity Supply Industry. Ian's contribution is significant for its focus on safety. He also made a major contribution to many of NZ's significant electricity infrastructure projects in the transmission area.

He was passionate about worker safety and training and was largely responsible for big improvements in the industry's safety record in the last three decades. He put in place processes and standards which have saved many lives. He was a strong advocate of documenting technical policies, standards and procedures, and of making them readily accessible in the pre-computer era. He consulted widely, had a strong belief in doing what was right and took pains to ensure everyone was heard.

In October last year Ian was awarded the Electricity Engineers' Association Meritorious Service Award for his outstanding contribution to safety within the industry. In 1988 Ian began the task of bringing together the industry's diverse safety rules requirements into two documents, which are now regarded by both the industry and the legal profession as the industry's safety benchmarks. Those documents are SR-EI and GSG-EI. The industry is now seamless in safety and Ian's work in bringing together the safety rules of ECNZ, Transpower, individual network companies, contracting companies, government departments and others into SR-EI and GSG-EI is a truly outstanding legacy for the industry. He had more recently been moving the NZ industry towards Trans Tasman documentation and the EEA, through Ian, has developed close links and strategies with its Australian counterparts.

Thanks also to his efforts, an environmental group was set up within NZ Electricity in the late 1960s, in what was, until then, a design and construction dominated organisation. A model he set up for transmission maintenance 40 years ago is still used by Transpower.

Ian's death marks the end of an era, but his legacy of safety practices will be around for a long time to come.

3. Safety Strategy & Policy Group Happenings

A review has been carried out of the membership of the Safety Strategy & Policy Group. The intention is to expand the membership, and retain the existing members. New members are:

- Bernard Healy Transpower

- Bob Taylor Connetics
- Joe Spataro Siemens
- Denis Drinkrow Genesis Power
- Gary Robinson Contact Energy

(Existing members are:
- Kevin Mackey Transpower (Chairman)
- Graeme Messervy Orion
- Dave Sanders Alstom
- Peter Berry EEA

In addition administration is provided by Harvey O'Sullivan, Tri-Sheras Ltd)

Remember that all inquiries regarding safety should continue to be made to the EEA (admin@eea.co.nz)

The key issues which the committee is addressing at this time, in addition to inquiries and interpretations of the rules, include:
- Development of the next issue of the safety rules
- Managing the development of the Guide for Electrical Safety (equivalent to the 'Green Book')
- Recognition of live work standards
- Development of EEA Technical Guides;
- Co-ordination with Australia, particularly the ESAA

4. EEA Technical Guides

4.1 Supervision for Safety
This Guide was placed on the EEA website in February as a draft. Comments have now been processed and a final version has been posted on the EEA website.

4.2 Use, Inspection, and Testing of Low Voltage Electrical Appliances, Cords and Protective Devices
This Guide is now complete and is on the EEA website.

4.3 Questions and Answers on Temporary Earthing
A Q&A paper on temporary earthing issues for transmission and distribution lines has been placed on the EEA website.

4.4 Proposed Guides
The EEA has a schedule of Technical Guides which will be prepared. Most of these will be to cover the topics in the Appendices of SR-EI so that the Appendices do not have to be included in the next version of SR-EI.

In addition the following Guides will be prepared;
- Temporary earthing
- Polarity checking
- Climbing in Switchyard Gantry Structures
- Climbing of Wood Poles (includes checking prior to climbing)
- Marking in Switchyards
- Safety management systems
- Public Access to Electricity Network Equipment (See 6.)

5. ESAA Codes and Guides

A number of codes and guides are being prepared by the Electricity Supply Association of Australia (ESAA). The EEA maintains links with the ESAA and attends the meetings of the National Electricity Network Safety Steering Committee. Working with this committee is seen as a way of ensuring consistency, where practicable, between the NZ and Australian ESI safety requirements.

Codes and guides under development by the ESAA include;

- Fall protection guidelines
- National Guidelines for Safe Approach Distances to Electrical Apparatus
- Safe Access to Electrical and Mechanical Apparatus
- Safe Vegetation Management Work Near Live Overhead Lines
- Low Voltage Protection Guidelines
- Manual Reclosing Guidelines
- National Guidelines for Contract Health and Safety Management
- Guide to Personal Protective Clothing and Equipment

Proposed guides include;

- National Guidelines for Electrical Safety for Emergency Services Personnel
- Prevention of Unauthorised Access to Electricity Networks
- Guideline to Special Approach Distances for Plant and Equipment
- Guide to Work with Helicopters

6. Public Access to Electricity Network Equipment

Several accidents have occurred on electricity network equipment in the past year involving young boys. These include;

- An accident in January this year when a 10 year old boy opened the door of a ground mounted transformer box and touched the exposed live HV terminals.
- A 9 year old boy climbed a stay wire of a termination pole on a 33kV feeder and touched the live side of a 33kV lightning arrestor.
- Two boys (8 and 12) climbed the wall of a zone sub-station and gained access to the roof of the building. The 8 year old climbed down into the adjacent substation and contacted live 33kV. It was subsequently revealed that the substation area was a local playground, with climbing onto the roof a frequent activity.
- In May last year a 6 year old boy climbed a pole and contacted an 11kV conductor.

All asset owners are encouraged to check their equipment to ensure that it is closed/secured for the level of trespass likely to be encountered. Specific checks must be made to ensure that children cannot climb onto or gain access to areas where they should not be.

An EEA Guide on prevention of access to electricity network equipment is to be prepared to give guidance to asset owners on acceptable levels of protection.

7. Incidents on Electricity Network Equipment

7.1 An incident occurred on a distribution network where a line worker received an electric shock from LV lines during a repair operation. The poles in the rural area carried HV and LV. Re-livening was occurring progressively along the line following a vehicle accident. A transformer was obscured from view (on the opposite side of the road and fed by cables) and it was not realised that the next section of livening

would also liven the LV being worked on. The accident resulted in a prosecution of both the principal and the contractor.

The OSH prosecution notes stated that the contractor failed to;

- Identify and isolate the 400v supply
- Issue appropriate access permits
- Ensure at all times that its employees operated under the direction of a properly qualified controller who was in control of the site
- Conduct a tailgate meeting for all workers involved at the commencement of the job
- Conduct a further tailgate meeting when the variation in the work was proposed
- Refer to drawings on hand
- Earth the low voltage lines.

The OSH prosecution notes also stated that the principal needed to take a much more active part in fault situations, particularly around the issue of access permits for work on HV.

Aspects of the above notes which are significant include the references to supervision, preliminary tailgates, follow up tailgates and earthing of LV conductors. The reference to earthing of LV is being addressed by the Safety Strategy & Policy Group, who will advise if such earthing for overhead conductors will be required.

7.2 A contractor was prosecuted after one of its employees fell from the lower levels of a transmission tower while fitting anticlimb wire. The prosecution statement of facts and subsequent sentencing notes focused on failure of the employer to address the fall-risks involved in unattached movement across the faces of the tower, when employees were passing barbed wire by hand from corner to corner around the tower. It also focused on the actual fall event from a tower leg work position, which involved the employee improperly attaching his pole strap to achieve restrained fall arrest. Instead of securing his strap around the tower leg, the employee hooked his strap over a short length of steel jutting from the anti-climb bracket secured to the tower leg. When the employee momentarily relieved strain on the pole strap while moving at the work position, the pole strap slid off. The employee, unaware of this, fell when attempting to place his body-weight back on the pole strap.

It is noteworthy that there is consistency between the position taken by the prosecution and the current EEA Guide concerning attachment while aloft in towers. Both require full attachment for all movement about the tower and at the work position, as distinct from during ascent/descent. Options presented in the prosecution statement for what would have been acceptable procedures for doing the barrier installation work clearly included the concept of free climbing for the purpose of ascent/descent only. This is also consistent with the EEA Guide, which allows managed free climbing for ascent/descent only, by competent employees. The prosecution outcome indicates no need to change the agreed OSH/industry position expressed in the EEA Guide as it currently stands.

OSH is currently being requested to ensure that its field staff are made aware of the requirements in the EEA Guide on tower climbing and also to ensure that future editions of OSH guidance on fall prevention include reference to the EEA Guide as an industry document. The EEA has already communicated to industry the OSH expectations that tower-climbing activity must comply with the EEA Guide by 1 July 2002. During the year to 30 June 2003, the EEA welcomes feedback on trials of the

Guide provisions. Meantime, preparation is underway towards review of pole climbing and work aloft in sub stations.

8. Dominion Dropout Fuses (DDO's)

An issue has been raised with the Safety Strategy & Policy group regarding safety aspects of currently available DDO's. DDO's being sold are now smaller than earlier versions, such that the distance between the contacts has been reduced to approximately 300mm. These DDO's also have an earthing lug fitted.

The issue arrises when temporary earths are to be applied or removed from the load side of DDO's after the fuses or links have been removed to isolate the load circuit. During this operation a hazard has been identified due to the flashover risk between the temporary earthing device and line side terminal of the DDO. This occurs because the head of the temporary earth will encroach within the MAD to the line side terminal of the DDO when being applied or removed from the DDO earthing point.

The Safety Strategy & Policy Group agrees that the design of the DDO in its standard format means that safe distances cannot be achieved. The Safety Strategy & Policy Group also confirms that the 300mm distance (for 11kV) is required, and cannot be reduced.

Engineering solutions have been developed by the suppliers. Owners and purchasers of DDO's need to implement the engineering solution if they intend to apply or remove an earth from the DDO when the line side terminal is live.

9. Assurances

The previous newsletter (October 2001) described the principles and procedures for assurances. After the newsletter was published some comment was received on the operating requirements when dealing with two controllers across an operational boundary.

At the point at which a permit is returned there are no longer any employee safety issues associated with the equipment, and the re-instatement of the equipment becomes an operational matter. Notification to the assurance issuer that the assurance is no longer needed is a necessary first step in the re-instatement of the equipment. However, notification that an assurance is no longer required means that safety measures can be removed but does not mean that the equipment is ready for re-instatement, or, for example, earth free.

Once the safety measures have been removed the re-instatement of the equipment must be co-ordinated between the controllers at each end, to ensure that removal of earths takes place before livening of the circuit. This is primarily an equipment integrity issue, but can be a safety issue when circuits are being livened against applied earths. Proper use of operating orders will help to manage this issue.

10. Temporary Earthing

10.1 Temporary Earthing Working Group

The Temporary Earthing Working Group have prepared a set of 'Questions and Answers' related to common issues with temporary earthing. (See 4.3)

The Group will be preparing a Guide on Temporary Earthing.

10.2 Testing Before the Application of Portable Earths

Rule 602 e. states that 'equipment shall be proved de-energised on all phases prior to the application of the first portable earth to any set of conductors not already earthed'.

The rule is to be applied such that testing prior to the application of the first temporary earth is required in all circumstances where earths cannot be observed to be in place from the work position.

For exposed or overhead conductors, where an installed earth is visible from the work position, and the recipient is certain that it is applied to the conductors to be worked on, then testing is not required. Even in the circumstance where there are already temporary earths on the conductors being worked on, but they are not visible from the current working position, testing should be carried out before the application of the first temporary earth at that position.

Cables require a careful process of identification, spiking where necessary, and then further testing to confirm the identity to ensure the correct cable is to be worked on and is earthed.

10.3 Use of LV Neutrals as Temporary Earthing Points

The previous newsletter (October 2001) contained an article on the use of LV neutrals as temporary earthing points. Comment on this article was received from the regulator, with particular emphasis on how the employee in the field would know whether the neutral is adequately sized.

The Safety Strategy & Policy Group considered the issue and advised as follows;

- The persons carrying out the earthing are primarily responsible for determining the earthing to be applied, including what it is applied to. They must, therefore, make judgement on the adequacy of the neutral for earthing. To be able to make this judgement they must be deemed competent to do so by their employer.
- In most instances the LV neutral will be adequate for temporary earthing.
- The asset owner should identify those areas of their network where the LV neutral is not adequate and instruct the contractor accordingly. The contractor cannot then use the LV neutral in those areas.
- The workparty will carry out a tailgate safety session prior to carrying out the work, and will assess how they are going to provide earthing. They must determine whether the LV neutral is adequate, whether they are permitted to use it, and how they will identify it.

Note that the above advice requires the asset owner to identify the adequacy of the neutrals on their network and notify the contractor if they are not adequate for temporary earthing.

Tony Mitton also makes the following additional comment;
I agree that the neutral conductor must be adequately sized. It would have to be the asset owner's responsibility to advise their contractors of this (it may vary throughout the network).

I would note that a simple driven earth could be just as hazardous, particularly where the driven earth resistance is high (eg > 5 ohms). A compromise might be to use both a driven earth and the neutral where the neutral is known not to be fully rated. The rating of the neutral needs to be defined in terms of a specified short time fault

rating. In addition, the realistic (ie not theoretical) earth fault current at the work location should be determined. For 11 kV and 33 kV systems, the feeder circuit (cable or line) impedance plus the temporary earth impedance will significantly reduce the prospective fault current. Consequently the neutral conductor is more likely to withstand the actual fault current.

The most important safety feature (after proper isolation & proving dead) is to ensure that the three phases are properly bonded together & then earthed at one point. Proving dead will ensure a live conductor is not earthed. The main risk remaining arises from an inadvertent livening which then results in the failure of one of the temporary earth connections. If this occurred then an earth fault will result with associated hazards.

11. Use of Voltage Detection Devices (VDD's)

SR-EI rule 602e requires that equipment in proved de-energised before the application of the first portable earth (see 10.2 above). VDD's are the normal means by which de-energisation is proved.

Voltage detection devices are an extremely valuable part of the tool kit of any person charged with applying portable earths to high voltage equipment.

Accidents involving portable earths are unacceptable and totally avoidable. This article will explain the simplicity in using the devices and provide some tangible (and hopefully obvious) benefits to the welfare of the individual and to the performance of the organisation.

Use of Voltage Detection Devices

There are many different types of devices currently available but generally comprise of a detector unit and an application stick. The correct use of the device follows a sensible, strict application regime;

- Ensure that the voltage detector is suited to the voltage of the equipment being earthed.
    - Most devices are manufactured for a specific operating voltage, or voltage range.
    - The use of a device that is not rated for the voltage of the equipment being earthed can result in a serious accident.
- Ensure that the voltage detector is fit for purpose.
    - Simple visual checks must be made to ensure that damage has not been sustained through neglect, lack of maintenance, transportation, misuse or normal wear and tear.
    - Check for scratches on insulated application sticks, these can seriously degrade the insulating capability of the stick.
    - If there are signs of any damage – it should not be used.
- Check that the detector unit and stick has been inspected within the guidelines specified by the manufacturer and/or industry/asset owner guidelines.
- Position the portable earths directly below the intended earthing point.
- Correctly position yourself at the intended earthing point.
    - There have been instances where disorientation has occurred resulting in the application of earths at an incorrect and unintended point.
- Correctly assemble the detection unit.
    - Failure to correctly assemble the unit can cause injury due to collapse of the device
    - Some devices have a "rain shield" for use during wet conditions. The shield prevents moisture tracking down the side of the application stick
- Test the voltage detector

    - Testing is required to ensure that the device is functioning correctly before applying to HV equipment.
    - This is generally achieved by applying the device to an external source of reference voltage and should be part of the manufacturers kit.
    - Sometimes the testing device is contained within the head of the detector itself.
    - Check visual and audible signals – if the detector does not indicate the presence of an applied voltage seek a replacement.
- Apply the detector to the intended testing point and to all phases
    - Test the detector again using the external voltage source in the kit.
    - This ensures the reliability of the test and will confirm the detector was functioning correctly at the time of the test.

Employers Obligations

It should be noted that owners of portable devices (or employers of persons using portable devices) also have obligations.

In short Employers are required to:

(a) Approve their use,

(b) Ensure that they are thoroughly inspected within 7 months by a competent person,

(c) Ensure that the equipment is inspected by the employee immediately before use and found to be in a good condition, and

(d) Ensure the equipment is subject to periodic HV test (calibration).

Benefits

The benefits of using the voltage detection device are simple.

Firstly, and most importantly, these devices will prevent injury to any person applying portable earths. Operating actions can be complex at times, so providing a final and reliable check that the equipment to be worked on has been isolated from all sources of electrical supply ensures that any possibility of applying temporary earths to live equipment is eliminated.

The second obvious benefit relates to the power system. Reliability of supply plays an important part in measuring the performance of the electrical reticulation system of any asset owner. Interruptions to customer supply due to earthing accidents are minimised by religiously using these devices as part of your normal isolation and earthing procedures.

There are several examples where the use of a voltage detection device has contributed to the avoidance of significant and costly power system interruptions to customers.

Consider the cost implications involved in supply interruptions and injury - the investment in the VDD is small.

12. Interpretations Issued

The Safety Strategy & Policy (SS&P) Group has recently issued the following interpretations. These interpretations are issued to provide guidance in response to questions on a specific circumstance, and the interpretation is given for that circumstance. Application of the interpretation to a different circumstance may not be valid. (Note that interpretations may also be covered under separate specific topics)

12.1 Rule 602

A clarification was requested on whether rule 602 means there is no requirement for a visible break in a circuit such as is achieved by the use of a disconnector. The SS&P Group confirmed that rule 602, specifically the note after part c. means that a

device such as a circuit breaker with no visible contacts may be used for isolation. The asset owner must evaluate the safety of this method as applied to their equipment and issue instructions that this method may be used on their assets. (See also 12.2)

12.2 Rule 602(f)

Background

A clarification was requested of the meaning of SR-EI rule 602 f. particularly with respect to the interpretation of the term 'at, or adjacent to'. The network company requesting the interpretation intend to use pole mounted SF6 switches which do not have a visible break in the contacts.

Rule 602f. requires that 'Where isolation is provided by a disconnector or by switchgear not having a visible break and where earthing is applied at, or adjacent to, the disconnector or switchgear, the earthing shall be either by;

i. an integral earth of that disconnector or the switchgear; or
ii. an earth connected to the same earthing system used by the switchgear.

Interpretation

Section 6 of SR-EI requires (amongst other requirements);

- HV circuits must be isolated, proved de-energised, earthed and a permit issued before work is done (except live work)
- Isolation points must be locked and tagged
- Where an earth switch is provided it must be the first earth applied
- The circuit shall be proved de-energised on all phases prior to the application of the first portable earth.
- Where isolation is provided by switchgear not having visible breaks any earth applied at the device must be either an integral earth, or be a temporary earth applied to the same earthing system as the switchgear. The wording 'at, or adjacent to' is to ensure that when earthing is applied near the switch it must use the same earthing system as the switch, to prevent potential differences.
- Earths shall be applied so as to eliminate hazard from any cause that could liven equipment, and be effective in all circumstances for the work taking place.
- Rule 603 provides additional requirements for earthing overhead conductors. This includes applying earths on each side of the working position, placing one set of earths as close as practicable to the working position, and having one set visible from the working position.

SR-EI section 6 also allows that;

- Isolation points do not have to have visible breaks
- A circuit does not have to be earthed anywhere other than at the working position, (but for overhead conductors does have to be earthed on both sides of it).

Comment

In theory earths at the workplace should be adequate to achieve safety. However, field earths are not always as effective as desired, because conditions are not always conducive to good earthing.

The SS&P Group believe that it would be good practice, though not strictly necessary, to earth at the switch where a visible break cannot be achieved. This will provide some certainty that the switch is open, although locking and tagging should be adequate. (Note that some utilities follow the practice of always earthing at switches with no visible breaks.)

The document '*Transmission and Distribution Lines – Topics Relating to Safety Earthing'* covers questions and answers relating to temporary earthing (See 4.3).

Conclusion

a) Earthing at the switch for work remote from the switch is optional.

b) The administration systems for locking and tagging should be sufficiently robust to ensure the switch has been opened and remains open. (A voltage detector is required to be used before the application of the first portable earth)

c) SR-EI sets minimum requirements to achieve safety and does not always contain redundancy, ie the measures described must be taken adequately. They do not prevent additional measures from being taken.

d) The asset owner needs to evaluate the safety issues associated with the use of switches with no visible breaks and determine their own overall safety requirements, using SR-EI to set the minimum requirements.

13. Publications Referenced in SR-EI and GSG-EI

GSG-EI makes reference to over 70 external publications, and SR-EI makes reference to 25, most of which are the same as those in GSG-EI. From time to time these references are amended. Listed below are the references which have been identified as having changed. Also listed are some references not stated in the rule books, but which may have relevance.

The following publications have changed since October 2001:

(a) OSH Publications. (Available at www.osh.dol.govt.nz)

(i) The Approved Code of Practice for Load Lifting Rigging (2001)
This ACOP applies to all work where an employee has to use lifting and rigging practices. The ACOP is referred to in rule G 701.

(ii) Workplace Exposure Standards Effective from 2002 (2002)
Section 4 Background, and rules G409, G501, 910 refer to the 1994 version of the WES standard.

(b) Standards

(iii) AS/NZS 2865 : 2001 *Safe working in a confined space*
Rules 1003 and G902 refer to the 1995 version

(iv) AS/NZS 4801 : 2001 *Occupational health and safety management systems – Specification with guidance for use*
Rules 109 and G109 refer to the 1999 interim version. The Standard establishes an audit framework principally for use by third party bodies to conduct an independent audit of the organisations QHSMS. It can also be used for internal auditing procedures.

(c) Miscellaneous

(v) Safe Working Practices for Electricians and Electrical Workers – MoC - 1990
A draft of an equivalent document is being prepared by the EEA.

(vi) National Radiation Laboratory Codes of Practice
For current codes refer to the NRL website www.nrl.moh.govt.nz/publish

(vii) OSH Publication *A Guide to Safety with Underground Services* has been updated by the EEA and other parties and is awaiting publication. Rule G 904 refers to this Guide.

Other Relevant New Publications Which are Not Referenced in SR-EI or GSG-EI:

(viii) IEC 60743 : 2001 *Live working terminology*. Applies to terminology for tools and equipment used in live working. The Standard gives only the necessary

details, without indications of their components and their methods of use, to permit identification of the tools and equipment and to standardize their names.

(ix) IEC 61478 : 2001 *Live working – Ladders of insulating material* This Standard is applicable to fully insulating spliced or hook ladders with extension or having a combination of insulating and conductive sections, and used on HV.

(x) BS IEC TS 61813 : 2000 *Live working – Care, maintenance and in-service testing of aerial devices with insulating booms.*

(xi) AS/NZS 4804 : 2001 *Occupational health and safety management systems – General guidelines on principles, systems, and supporting techniques* provides general guidance on how to implement an OHSMS.

(xii) AS/NZS 1270 : 2002 *Acoustics – Hearing protectors* Specifies requirements for the design, material and performance of conventional hearing protectors. Also provides guidance on the general requirements for specialist hearing protectors and procedures for the physical and acoustic testing of such devices.

(xiii) AS/NZS 2430.3 *Classification of hazardous materials* Provides guidance on the classification of several commonly occurring situations in which flammable liquids or gases are generated, processed, handled or stored and which are therefore potentially dangerous.

(xiv) AS 2670.1 : 2001 *Evaluation of human exposure to whole-body vibration – General requirements* This Standard defines methods for the measurement of periodic, random and transient whole-body vibration and indicates the principal factors that combine to determine the degree to which vibration exposure will be acceptable. Informative annexes provide guidance based on current opinion on the possible effects of vibration on health, comfort and perception and motion sickness.

(xv) AS 4748 : 2001 *Acoustic emission testing of fibreglass-insulated booms on elevating work platforms.* Describes a procedure for the acoustic emission testing of elevating work platforms incorporating fibreglass-insulated reinforced plastic booms, to establish the structural integrity of the boom. It also specifies rejection criteria. Requirements are given for the test equipment, instrument performance tests and instrument calibration.

(xvi) BS EN ISO 5349-1 : 2001 *Mechanical vibration – Measurement and assessment of human exposure to hand-transmitted vibration – General guidelines* .

(xvii) BS EN 12479 : 2002 *Wood poles for overhead lines – Sizes – Methods of measurement and permissible deviations*

(xviii) BS EN 12510 : 2002 *Wood poles for overhead lines _ Strength grading criteria*

(xix) BS EN 12511 : 2002 *Wood poles for overhead lines – Determination of characteristic values*

14. Boundary Marking

The previous newsletter gave an update on the boundary marking system developed by Alstom for Transpower. It has now been decided that a Technical Guide will be developed on this subject.

15. Hazardous Substances and New Organisms (Stockholm) Amendment Bill

The HSNO (Stockholm Convention) and Imports & Exports (Restrictions) Bills were introduced to parliament in late May. These Bills bring NZ into line with international conventions that control and reinforce the bans on persistent organic pollutants. Asset owners who still have PCB's (or may yet discover PCB's) need to be aware of these Bills, as they may impact on the disclosure requirements for PCB's, and their export for destruction. The Ministry for the Environment have indicated that these concerns will be addressed.

EEA Safety Strategy and Policy Group
June 2002