



Proposed Amendments to OSH and Electricity (Licensing) Regulations and Draft Code of Practice

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About CME

The Chamber of Minerals and Energy of Western Australia (CME) is the peak resources sector representative body in Western Australia. CME is funded by its member companies who are responsible for most of the State's mineral and energy production and are major employers of the resources sector workforce in the State.

The Western Australian resources sector is diverse and complex, covering exploration, processing, downstream value adding and refining of over 50 different types of mineral and energy resources.

In 2014-15, the value of Western Australia's mineral and petroleum production was \$99.5 billion. Iron ore is currently the State's most valuable commodity, accounting for more than half the State's production value at \$54 billion. Petroleum products (including LNG, crude oil and condensate) follow at \$24 billion, with gold third at \$9 billion.

The sector is a major contributor to the state and the Australian economy. The estimated value of royalties the state received from the resources sector composed almost 15 per cent of estimated total state revenue in 2015-16, or around \$3.8 billion.

Recommendations

CME appreciates the opportunity to comment on the draft amendments to the Occupational Safety and Health Regulations 1996 (OSHR) and the Electricity (Licensing) Regulations 1991 (ELR) as well as the draft *Code of Practice – Work on or near energised electrical installations and in roof spaces of certain buildings*.

As outlined in CME's previous submission, the resources industry has consistently shown support for the principle of prohibiting work on or near live electrical equipment while ensuring exemptions in certain situations where it can be demonstrated the activity can be undertaken safely through the application of appropriate risk mitigating controls. Responses from members regarding the current draft amendments were in line with this and feedback was generally very positive.

CME also sought member feedback on the proposed amendments to Regulation 50 of the ELR regarding the supervision of electrical work and includes comment in response to these proposed changes in this submission.

A summary of recommendations is included below with further supporting detail outlined in the following submission. CME recommends:

- EnergySafety and WorkSafe WA continue to engage closely with industry to ensure amendments deliver improvements in safety while minimising regulatory burden, avoid duplication and ensure alignment across OSHR and ELR.
- WorkSafe WA amend Regulation 3.59B to allow for a 'competent person' as defined by OSHR 1.3 to carry out these works. The introduction of a requirement for a qualified electrician would create significant impost when these activities can be safely carried out by other occupations.
- Including further detail in the supporting Code of Practice as a reference to the "training, qualifications and experience" relevant to electrical installations.
- Regulation 55 of the proposed amendments be reviewed and updated to clarify the prohibition does not extend to neutral conductors where these activities can be managed safely through other controls.
- Part 2.1 of the Code be amended to clarify "an assessment of an electrical installation" is not "electrical installing work". This could be achieved by:

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- Amending Part 2.1 of the Code to include text that states “visual inspections may be carried out while an installation is live provided a formal risk assessment has been conducted and appropriate controls are applied” to clarify electrical installing work does not extend to an assessment of an electrical installation; and
- Amending the Decision Matrix flow chart (figure 1, page 8) to allow for visual inspections to be conducted without isolating, providing a formal risk assessment has been conducted and appropriate controls have been applied.
- A transition period for bringing existing practices up to expected standards to enable design changes and allow for internal systems to be amended to align with the regulatory amendments and avoid unintended non-compliance during the initial transition.
- Removing the condition from Regulation 50 (3)(e)(ii.) requiring the number of apprentices being supervised by the supervising electrical worker to not exceed three at any one time. Instead proposed amendments to Regulation 50 should enable industry to take a risk based approach to supervision of electrical apprentices in the workplace.

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Context

The Western Australian resources sector places the highest priority on ensuring the safety and health of the workforce and is committed to continuous improvement across all aspects of safety and health management. CME members recognise the potential hazards associated with working on or near energised electrical equipment and EnergySafety and WorkSafe WA's focus on this important issue.

To achieve better safety outcomes, CME supports:

- a risk based, outcomes-focused approach to legislation which encourages proactive compliance and innovation in the way in which risks are managed;
- regulation which is streamlined, easy to understand and minimises regulatory and administrative burden; and
- consistency (where appropriate) between legislation and jurisdictions to increase efficiencies and remove complexity for operators.

CME appreciates the opportunity to comment on the draft amendments to the Occupational Safety and Health Regulations 1996 (OSHR) and the Electricity (Licensing) Regulations 1991 (ELR) as well as the draft *Code of Practice – Work on or near energised electrical installations and in roof spaces of certain buildings*.

It is positive to note Worksafe WA and EnergySafety are collaborating on these amendments with the aim of avoiding duplication and ensuring alignment across general occupational safety and health regulations and electricity regulations.

In April 2015 CME provided a submission on this matter in response to the discussion paper titled *Work on Live Electrical Equipment*. As outlined in our submission, industry supports the principle of prohibiting work on or near live electrical equipment, however, considers it is necessary to allow for exemptions in certain situations where it can be demonstrated the activity can be undertaken safely through the application of appropriate risk mitigating controls. In that context, CME is pleased to see a number of the recommendations from our submission have been adopted into the draft amended Regulations and in particular welcomes adoption of a risk based approach.

As outlined below, industry is broadly supportive of the proposed changes pending a number of additional amendments to provide clarity and remove the potential for unnecessary regulatory burden. Our previous submission also stressed the need for a transition period to be implemented to avoid unnecessary costs and unintended non compliances and the importance of this is reiterated below.

CME is also aware of the proposed amendments to Regulation 50 of the ELR relating to the supervision of electrical work which EnergySafety is currently seeking feedback on. It is noted the intent of these changes is to include definitions of direct supervision and general supervision and provide clarification of the responsibilities of the employer and the supervising electrical worker regarding apprentices and persons in training. This submission will include discussion on CME member feedback in relation to these changes.

CME will continue to engage with Worksafe WA and EnergySafety on all of these matters and appreciates the consultative nature of this process to date.

CME recommends EnergySafety and WorkSafe WA continue to engage closely with industry to ensure amendments deliver improvements in safety while minimising regulatory burden, avoid duplication and ensure alignment across the OSHR and ELR.

Definition of 'Competent Person'

The proposed amendments to the OSHR and ELR call up to two separate definitions of the term 'competent person'. OSHR 1.3 defines a 'competent person' as being competent by acquiring the relevant skills and knowledge through "training, qualification or experience". This definition applies to all regulation amendments of the OSHR and ELR unless Regulation 55 of the ELR applies.

Regulation 55 (1) of the ELR defines a 'competent person' as a person who holds an electrical workers license endorsed as an electrical license. This definition applies to Regulation 55 of the ELR.

CME members noted the inclusion of two different definitions of 'competent person' created confusion in some areas of the proposed amendments, particularly when the regulations cross reference between OSHR and ELR Regulation 55.

Given one of the purposes of collaboration between EnergySafety and WorkSafe WA on these amendments is to ensure alignment across regulations, CME considers the use of term competent person is in need of review in a number of areas. These are outlined in further detail below.

Regulation 3.59B – Work in roof spaces

CME recognises, when conducting work in roof spaces under the OSHR the current amendments allow for a 'competent person' as defined by OHSR 1.3 to de-energise the building's electrical installation. However, if seeking to continue works while energised (through compliance with ELR Regulation 55 (4)) the proposed amendment to Regulation 3.59B appear to require an electrician to conduct the works.

This has significant cost implications for industry as it would require some companies to engage qualified electricians for simple works that can be undertaken safely by other occupations.

For example, in the gas industry testing and fault finding of gas appliances within the roof space requires the appliance to be energised and is typically conducted by gas fitters and gas network operators. To conduct this task under the amended regulations a worker holding an electricians license will be needed to comply with ELR Regulation 55 (4). The same applies for conducting gas installation work, maintenance activities and inspections of gas appliances within a roof space.

CME recommends WorkSafe WA amend Regulation 3.59B to allow for a 'competent person' as defined by OSHR 1.3 to carry out these works. The introduction of a requirement for a qualified electrician would create significant impost when these activities can be safety carried out by other occupations.

Regulation 3.59A – Electrical installing work

CME members support the proposed requirement for specified duty holders to ensure an electrical installation is de-energised prior to commencing electrical work and consider this to already be standard practice in industry. However, the use of the term 'competent person' in this section of the Regulations requires further clarification.

Industry notes the term 'competent person' refers to a person who has acquired the necessary skills through "training, qualification or experience" as defined in OSHR 1.3 but acknowledges demonstration of experience is subjective and often only finally determined in a court of law. To remove this ambiguity, industry considers further clarification of what a competent person is in this context is required.

CME recommends including further detail in the supporting Code of Practice as a reference to the "training, qualifications and experience" relevant to electrical installations.

Regulation 55 - Prohibition

As outlined in CME's previous submission, industry supports in principal the proposal to place a prohibition on electrical work on or near live electrical installations and equipment. This support is subject to some specified exemptions to avoid unnecessary regulatory burden.

Industry considers the insertion of Regulation 55 relating to the prohibition to be generally positive, as the changes align with the requirements of AS/NZS 4836:2011 *Safe working on or near low-voltage electrical installations and equipment* (AS/NZS 4836). These standards are already commonly worked to within the resources industry.

CME members particularly welcome the inclusion of a risk based approach to allowing exemptions to the prohibition as per Regulation 55 (4) and (5).

However, CME members have identified a remaining issue relating to the definition of neutral conductors and work on uninsulated neutral conductors. Regulation 55 (2) of the ELR defines carrying out electrical installation work near an energised part as being when the person or thing may come in contact directly or indirectly with an uninsulated energised part of the electrical installation. In relation to this industry notes:

- A neutral conductor is defined under certain circumstances in AS/NZS 3000 *Wiring Rules* to be a live part. Under typical earthing arrangements that are used by industry, the neutral conductor would be interpreted as being an energised part, as it is defined in Regulation 55 (1). This has far reaching implications for industry as it would affect work on all switchboards where the earthing system used is not classed as TN-C-S. It also has significant implications for most high current switchboards that have outgoing circuits with unswitched neutrals.
- A neutral bar, tab or connection on a form 3 or form 4 switchboard is likely to be interpreted as being an energised conductor (as defined in Regulation 55(1)). As a result, the proposed process for carrying out work on or near an energised part (Regulation 55 (4)) will need to be followed. This has significant implications for industry as it is likely to affect a high number of switchboards.
- Form 3 and form 4 switchboards are designed to allow work in an outgoing functional unit whilst adjacent outgoing functional units, and the main bus, are live. However, neutral busbars, whilst being insulated from earth, are typically not fully insulated, and generally not insulated against contact.

The proposed amendment requiring all work on or near uninsulated neutral conductors be carried out under Regulation 55(4) would likely affect any work on outgoing functional units where the neutral conductor is not switched. Industry interprets the proposed regulation would also apply to the connection of cables supplying three phase and neutral circuits where the neutral conductor is not switched. If so, work in these situations would be prohibited unless isolated under the amended regulations.

Industry has invested heavily in equipment that has been designed to be in line with the accepted worldwide practice of having the neutral conductor at ground potential and is generally not insulated against contact by electrical workers. Additionally, neutral connections are made and unmade without the isolation of the neutral conductor from the supply. In many cases it is not possible to isolate the neutral bar of a switchboard from the supply.

A prohibition would result in significant impost for businesses needing to upgrade equipment to comply with the new regulations. Given associated risks are already adequately controlled for through design, isolation, engineering and other controls it is unclear what additional benefit to safety would be achieved by prohibiting work in these situations. There is also risk of deferral of maintenance activities and extending the duration between shutdowns due to reluctance to interrupt the supply if this prohibition were to apply.

CME notes the above implications are likely an unintended consequence of Regulation 55 and considers it is important the risk based approach adopted throughout the ELR be extended to include an exemption to accommodate tasks such as those listed above.

CME recommends Regulation 55 of the proposed amendments be reviewed and updated to clarify the prohibition does not extend to neutral conductors where these activities can be managed safely through other controls.

Draft Code of Practice: *Work on or near energised electrical installations and in roof spaces of certain buildings*

Industry showed general support for the draft Code as a practical guide for applying the ELR and OSHR and generally consider the code to be a useful tool in complying with the regulations. However, CME members raised concerns with the inclusion of “work comprising an assessment of an electrical installation” as part of the categorisation of electrical installing work. This is outlined in Part 2.1 ‘What is electrical installing work?’ and *Figure 1. Decision matrix* of the draft Code.

Currently, visual inspections are carried out on live electrical works in the resources sector. Industry proactively manages the associated risks by utilising specialised electrical equipment and implementing robust controls including risk management, personal protective equipment requirements and training processes specific to these operating environments. Taking into account these controls, the likelihood of an electrician receiving an electric shock while carrying out an inspection is extremely rare.

Industry is concerned the categorisation of assessment of electrical installations as installing work does not consider the effective controls being used in industry and would result in significant production shuts to allow for simple work to be complete (where the risks have been assessed and mitigated).

Furthermore, the prohibition has the potential to introduce additional risks related to the possible deferral of the original task due to the reluctance to interrupt the supply.

Given the significant impost to industry when associated risks are demonstrated to be adequately controlled, CME recommends Part 2.1 of the Code be amended to clarify “an assessment of an electrical installation” is not “electrical installing work”. This could be achieved by:

- **Amending Part 2.1 of the Code to include text that states “visual inspections may be carried out while an installation is live provided a formal risk assessment has been conducted and appropriate controls are applied” to clarify electrical installing work does not extend to an assessment of an electrical installation; and**
- **Amending the Decision Matrix flow chart (figure 1, page 8) to allow for visual inspections to be conducted without isolating, providing a formal risk assessment has been conducted and appropriate controls have been applied.**

Transition Period

CME considers it is not feasible to introduce the amendments to the OSHR and ELR prohibiting work on live electrical installations immediately. Sufficient notice would need to be given to enable organisations to purchase new equipment or modify existing installations in preparation for the new requirements.

For example, as discussed above, the prohibition as currently drafted could have significant implications when considering the use and design of switchboards. CME acknowledges the design of switchboards and other equipment are able to be modified in response to new

requirements. However, industry notes some of these modifications are likely to be complex and have the potential to introduce new risks.

Further to this, CME acknowledges there is an administrative burden associated with ensuring a company's internal processes and safety management systems are reviewed and updated accordingly to align with the amended regulations. For example, companies may need to update their systems to ensure processes reflect the risk based approach to managing the risks associated with electrical hazards in the workplace.

Industry considers a transition period for bringing existing practices up to expected standards should be implemented to enable design changes and allow for internal systems to be amended to align with the regulatory amendments and avoid unintended non-compliance during the initial transition.

Regulation 50 – Electrical Work, Supervision of

Industry expressed general support for the proposed amendments to Regulation 50 of the ELR that clarify the definition of the supervision of electrical work.

However, CME members do not support Regulation 50 (3)(e)(ii.) which limits the number of apprentices a supervising electrical worker can supervise to a maximum of three at any one time. Members consider this to be an unnecessarily prescriptive requirement that removes the ability of the supervising electrical worker to assess the apprentices' abilities and the nature of the tasks being performed.

Furthermore, it appears to contradict other elements of Regulation 50 which take into account the level of experience of the apprentice's being supervised. For example, (7)(h) and (7)(j) acknowledges differing skill levels between first and second year apprentices and third and fourth years.

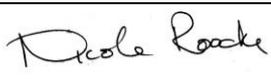
Given this, CME considers the requirement places unnecessary impost to industry where the associated risks are able to be sufficiently managed.

CME recommends removing the condition from Regulation 50 (3)(e)(ii.) requiring the number of apprentices being supervised by the supervising electrical worker to not exceed three at any one time. Instead proposed amendments to Regulation 50 should enable industry to take a risk based approach to supervision of electrical apprentices in the workplace.

Conclusion

CME welcomes EnergySafety and WorkSafe WA's efforts to improve safety outcomes for employee's working on or near live electrical equipment in Western Australia and looks forward to ongoing engagement throughout the continued development of the amended regulations and draft Code of practice.

If you have any further queries regarding the above matters, please contact Elysha Millard, Policy Adviser People and Communities on (08) 9220 8515 or e.millard@cmewa.com

Authorised by	Position	Date	Signed
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