

Australia & New Zealand Regulatory Update

29th Joint Technical Liaison Meeting

Innsbruck, Austria

April 3rd - 5th 2019

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Company name: Caterpillar of Australia

Representing: CMEIG - Construction & Mining Equipment Industry Group



The Construction & Mining Equipment Industry Group (CMEIG) is a non-profit organisation to represent the construction and mining equipment industry and allied equipment and services on issues impacting on the delivery of business.

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Agenda

Images shown here are for illustrative purposes only

- Regulatory Landscape
- Recent Developments and Focus Areas
- Standards & Regulations Development Activities



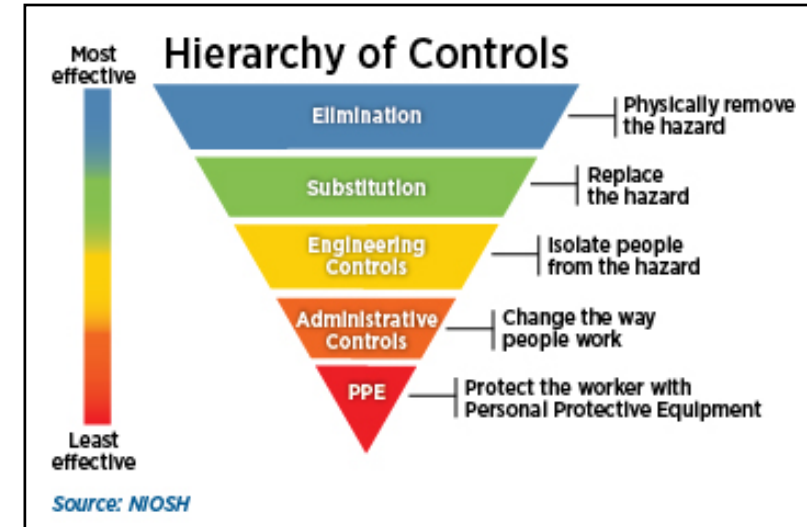
Regulatory Landscape

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- A common regulatory aim throughout the region –

Equipment free from risks to health and safety so far as is reasonably practicable

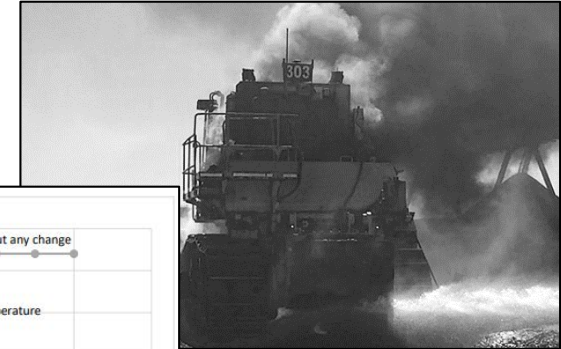
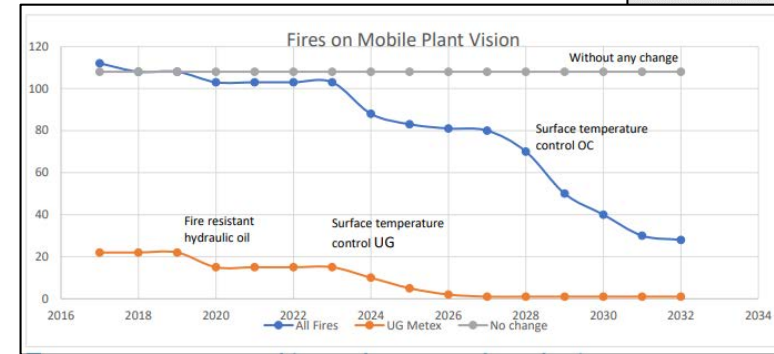
- Regulators use *Codes of Practice, Guidelines, Bulletins, Other guidance* to convey expectations
 - May refer to standards as a benchmark, however aim is generally risk-based
 - Significant onus on end users to address health and safety risks
- Majority of states & territories now have harmonised Work Health & Safety (WHS) Laws
 - Reinforcing health & safety risk management focus
 - Broadened scope, stringent penalties, additional requirements
 - Emphasis on hierarchy of controls (fig.)
 - State/application-specific underlying guidance material
 - WA finalising adoption, VIC will not adopt*
- Other regulatory schemes also exist besides WHS



Recent Developments & Focus Areas

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- SafeWork AU / WorkSafe NZ
 - AU - Model WHS review *"for the most part, working as intended ... still settling"* ([link](#))
 - AU - Publishing WHS guidance - duties of PCBU's ([link](#))
 - NZ - Educating industry on HSWA ([link](#))
- New South Wales Resources Regulator
 - **Discussion Paper - Fires on Mobile Plant** ([link](#))
 - Aim - reducing incidence of fires on mobile plant in mines and quarries
 - UG coal precedent
 - Proposal to legislate fire resistant hydraulic fluids
 - Proposal to legislate surface temp. control (water jacketing - manifolds, turbos, exhaust)
 - **OEM Workshop** - Access Systems on EMM ([link](#))
 - Revised MDG-41 published ([link](#))
 - *Previously communicated* - Revised MDG-15 published ([link](#))



OVERVIEW (What was found)
Access between Levels Non-compliant issues

The first step from the ground is too high.
400mm Max. (AS - 3868)

650mm

NSW Environment Planning & Environment Resources Regulator

NSW Resources Regulator

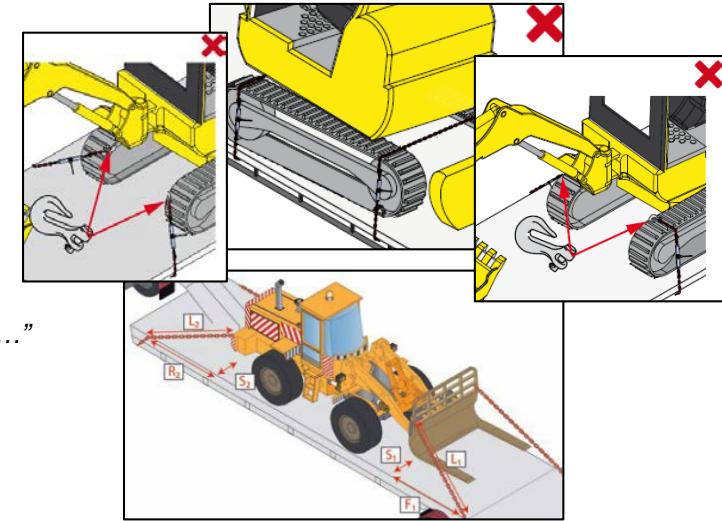
Surface mobile plant access systems – OEM workshop
November 2018

NSW

Recent Developments & Focus Areas

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- National Transport Commission / Nat'l Heavy Vehicle Regulator
 - Updated Load Restraint Guide 2018 ([link](#))
 - Load restraint criteria
 - Clarity re: position on tie-down using tracks
 - Chain of Responsibility ([link](#))
 - 1 October 2018, Heavy Vehicle National Law amended –
“...every party in the heavy vehicle transport supply chain has a duty to ensure the safety of their transport activities...”
- Queensland Resources Regulator
 - Respirable Crystalline Silica exposure ([link](#))
 - Guideline – Earthmoving Equipment* Automation in QLD mines and quarries
- Department of Agriculture and Water Resources
 - Brown marmorated stink bugs – additional quarantine/biosecurity measures for '18 -'19 season ([link](#))
 - Mandatory offshore/onshore treatment
 - Target risk countries – USA, Italy, Germany, France, Russia, Greece, Hungary, Romania, Georgia, Japan
- Department of the Environment and Energy
 - R134a phase down proceeding ([link](#))



Recent Developments & Focus Areas

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- NSW EPA – Diesel Engine Exhaust Emissions
 - 1st Jan 2018 onwards – NSW Government Resource Efficiency Policy in force (NSW govt. agency and govt. tenders – T4f where available) ([link](#))
 - NSW Surface Coal Mines – est. implementation date 2H 2020+ (inclusive of lead time) ([link](#))
 - Some ahead of regulatory drivers
 - By-user fleet emission reduction strategies, PM reduction strategies
- Australian Communications and Media Authority (ACMA)
 - Anecdote – Chemist Warehouse (Perth, WA)
 - Exemptions for CMEIG members (subject to adhering to certain conditions)
 - EMC (electromagnetic compatibility) ([link](#))
 - Radio equipment ([link](#))
 - Electromagnetic Radiation ([link](#))



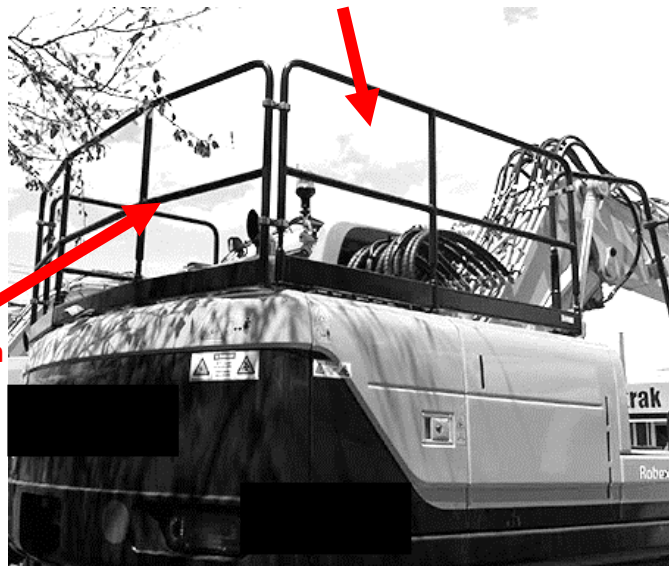
Standards Development Activities

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ISO 2867 MOD AU – AS 5327:2019

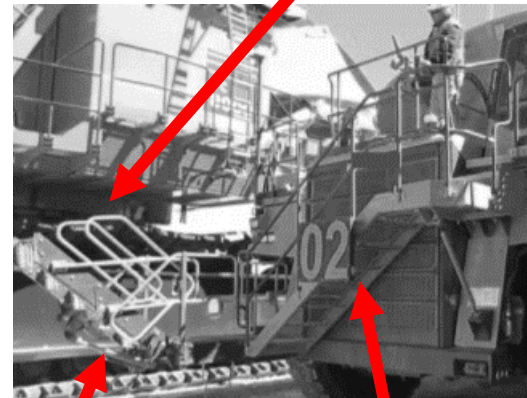
- 6 disparate AU references → 1 document, mostly aligned with, iterative to ISO 2867
- More detailed guidance in specific areas of concern, new mandatory requirements (1st step height, provision of guardrails, visibility & lighting)
- Public comment review completed 7th March 2019 - Technical content stabilised
- Est. publishing 2Q-3Q 2019

Guardrails – ‘shall be provided’ above # m
Replacing ISO 2867 Cl. 6.2.3



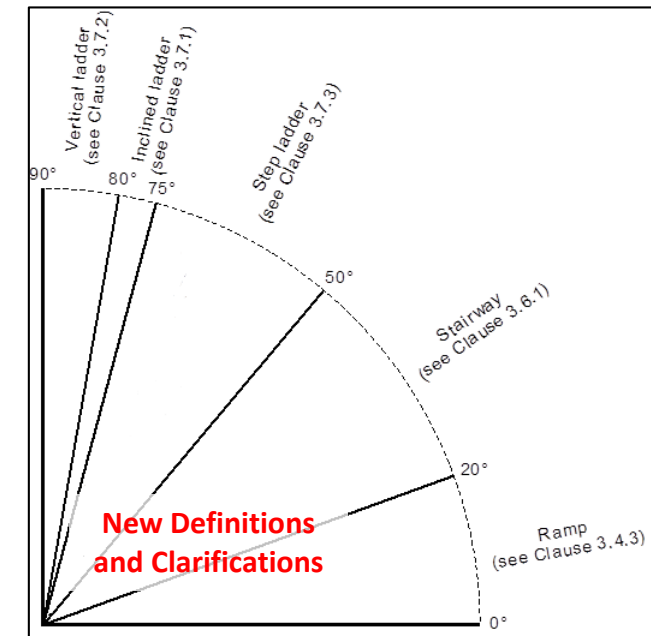
**Visibility of access system
hand/foot touch points**

Powered access



**1st Step Height
@ 400mm**

Access System Lighting



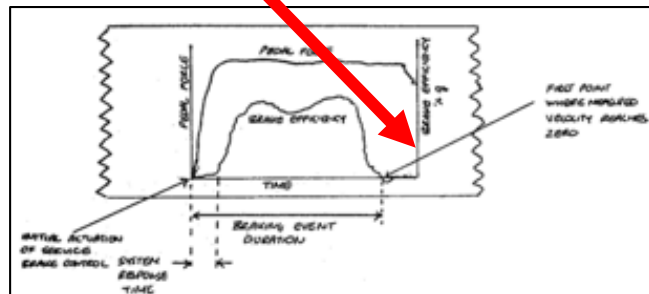
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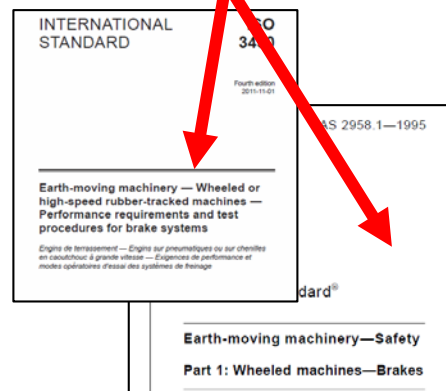
ISO 3450 MOD AU – AS XXXX:2019/2020

- Recognition of existing AU drivers for In-service brake testing
- Recognition of currently limited AU guidance, practical issues with current testing
 - Significant variability in measurement & results
 - Vague pass/fail criteria
- Work in progress
 - Re-alignment of similar AS and ISO standards
 - Practical guidance for in-service brake testing
 - Objective pass/fail criteria

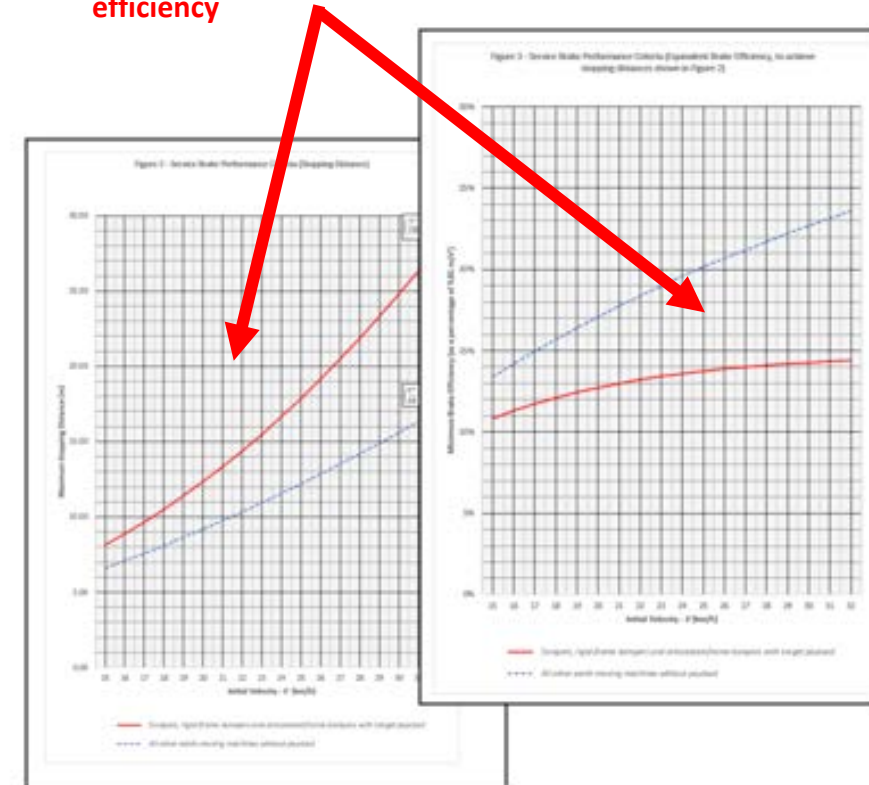
Guidance for in-service testing using g-sensor based automatic loggers



May replace ISO 3450 BSC annex in MOD AU



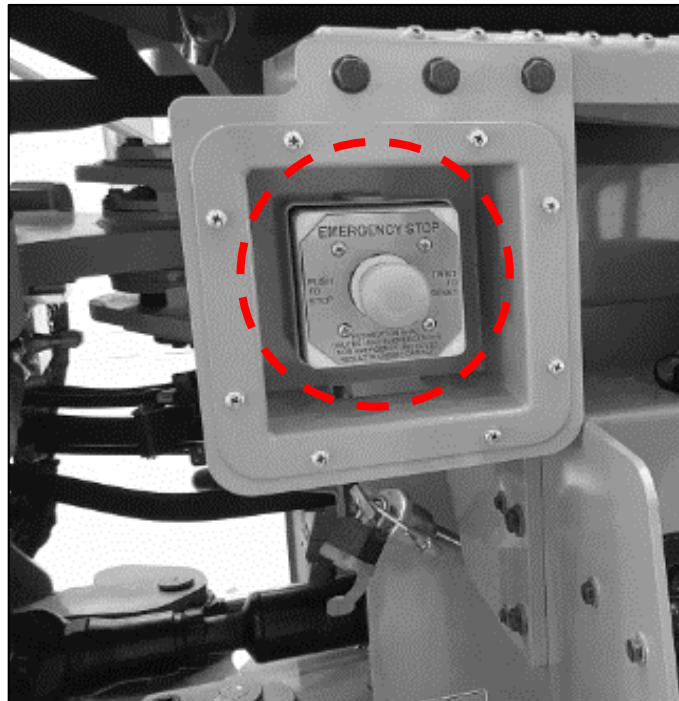
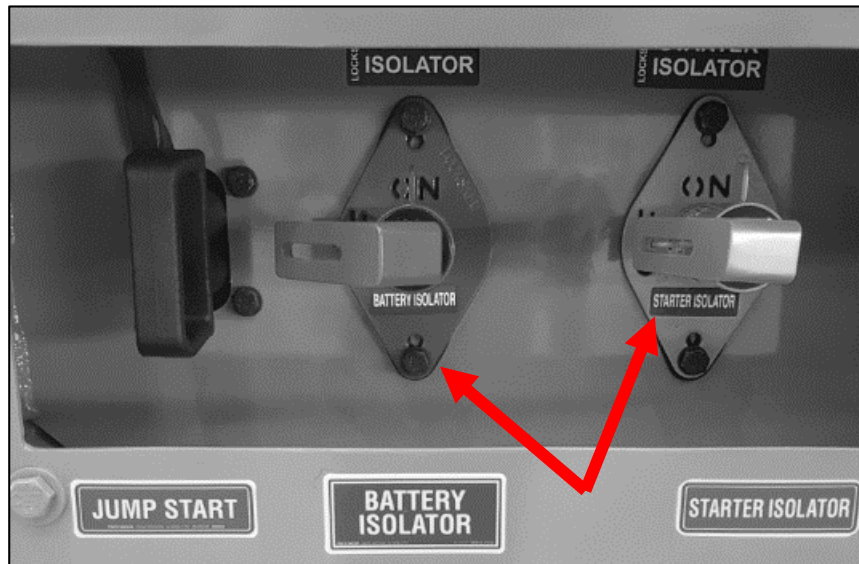
Min. in-service-test performance curves – presented as stopping distance and equivalent brake efficiency



Standards Development Activities

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- Safety of (Lithium) battery-powered earthmoving machinery (UG-focused)
- UG coal diesel engine safety (incl. emissions)
- E-stops / double-pole battery & starter isolators



CMEIG Activity

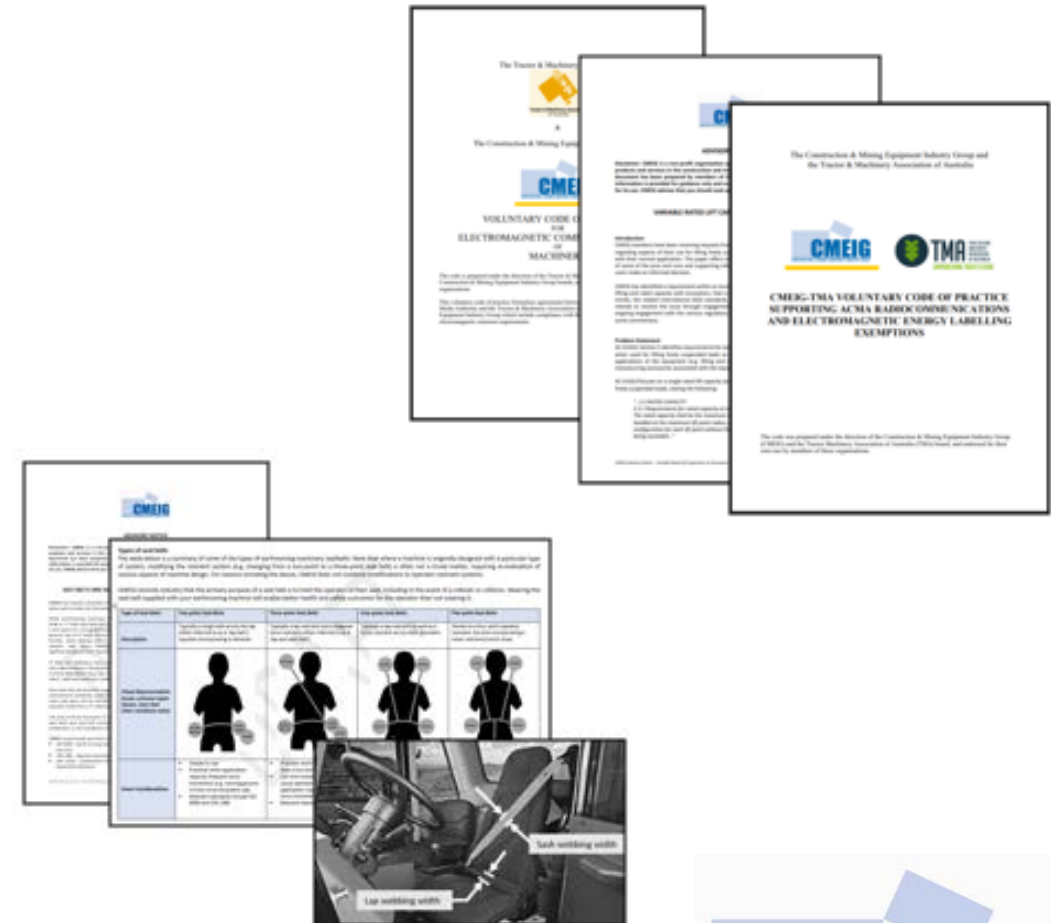
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Activity Snapshot

- Mobile Equipment Fires - Response to NSW Resources Regulator Discussion Paper
- Voluntary Code of Practice - ACMA Radio/Emitter Labelling, EMC requirements
- Diesel Engine Emissions regulatory development
- Rated Load measurement on wheel loaders
- Variable load lifting, Rated capacity/overload warning systems on HEX (AS 1418.8)

Ongoing / Proposed Projects

- Australian Standards projects (ISO 2867 MOD AU, ISO 3450 MOD AU)
- Further AU standards, ISO alignment/review
- Clarification of seat belt types, guidance, 3" vs 2" webbing width
- Functional Safety of control systems on Earthmoving Machinery



CMEIG publications can be viewed at: <https://www.cmeig.com.au/working-groups/engineering/>

