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Equipment Fires – Project 4

Stakeholder Management Plan

November 2019

EMESRT

Earth Moving Equipment Safety Round Table

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Related EMESRT initiatives and documentation

- Vehicle Interaction – Project 1
- Human Factors Design for Diversity – Project 2
- Tyres and Rims Management – Project 3
- Equipment Fires Project 4 Scope
- Design Philosophy 4 – Equipment Fires

Acronyms

DP   Design Philosophies

DP-4   Design Philosophy 4 - Fires

EAG   EMESRT Advisory Group

EMESRT   Earth Moving Equipment Safety Round Table

SMP   Stakeholder Management Plan

WG   Working Group

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1. BACKGROUND

In 2007, EMESRT published Design Philosophy 4 (DP-4) focusing on Fire with the aim of providing information to assist OEMs in designing equipment to reduce the risks of potential unwanted equipment fire events. This project is an extension of the original work carried out by EMESRT and the industry in developing DP-4. The industry's depth of understanding that surrounds how to build, operate and maintain equipment to sustain the desired outcomes is acknowledged but we need to do more. However, the industry acknowledges that significant fatality/injury risk still exist for surface mining and the potential for a catastrophe for underground mining is real.

Statistics published by the Queensland Mine Inspectorate at the end of 2018 showed that there were 773 fire events recorded (2015-2018) that cause, or have the potential to cause, a significant adverse effect on the safety or health of a person in mining.

In early 2019, EMESRT reached out to key stakeholders and started the conversation. This resulted in the formation of an EMESRT equipment fires working group. The primary focus of the group is to identify design inadequacies, review and link industry work to date on equipment fires to prepare a relevant Control Framework (CFw) document resulting in the development of an industry self-assessment tool with accompanying guidance notes (user guide).

2. INTRODUCTION

BACKGROUND - EMESRT BASELINE CONTROL FRAMEWORK (CFW) FOR EQUIPMENT FIRES

In two workshops in 2019, EMESRT invited experienced mining industry personnel to contribute to the development of a Control Framework for Mobile Equipment Fires in Mining.

At the workshops, more than 20 people representing: six mining companies, a fire detection and suppression consultancy supported by two expert facilitators worked for three days to review, amend and validate a CFw ver1 Baseline for Mobile Equipment fires.

The contributing organisations to this work were
1. Alcoa
2. Anglo American
3. BHP Billiton
4. Glencore
5. Peabody
6. Rio Tinto
7. South32
8. Wormald
9. Risk Mentor

A draft CFw was prepared before the first workshop from multiple information sources about preventing and mitigating equipment fires:

- EMESRT Design Philosophy 4 – Equipment Fires
- Regulator information from multiple jurisdictions - incident reports, bulletins, publications analysis, position papers, etc.
- Operating site, company and industry documents
- Research and technical information e.g. incident taxonomies
- Relevant Standards and Guidelines e.g. ISO 19296 Mining - Mobile machines working underground - Machine Safety First edition 2018-11

Working from this draft the workshop participants reviewed, amended and validated the CFw content working iteratively through this cycle multiple times over two days:

1. Review the **Required Operating States (ROS)**

2. For each ROS identify the **Credible Failure Modes (CFM)**, amend as required, support with real world scenarios, cross check against incident experience

3. Use control sheets to identify the **Business Inputs** that prevent or mitigate the CFM from compromising the ROS.

   a. For each business input capture how it is *specified, implemented* and *monitored*

   b. Add industry level detail based on participant knowledge and experience

4. Continually update the CFw for Mobile Equipment Fires.

5. This content was again reviewed during a one-day workshop in July and EMESRT coordinated industry level projects commenced.

During the workshops, it was recognised that fire prevention and mitigation approaches across operating mining fleets are not integrated or consistent and that OEM equipment design for fire prevention is not clear. It was also noted that fire detection and suppression systems design and installation is not well coordinated between OEM and third-party suppliers and compounded by having multiple company specifications.

At the conclusion of the July workshop it was decided to:
- Gain commitment from workshop participants to be a part of the working group
- Scheduling monthly working group teleconferences
- Develop a Draft Stakeholder Management Plan
- Adopting the agile Trello board online project management tool to manage the project
- Influence the course for change in not only the design and installation consistencies but in developing a self-assessment tool and guidance notes that end users can use to determine if they have controls in place to mitigate a fire event

3. PURPOSE

The purpose of this Stakeholder Management Plan is to record the requirements and processes for ongoing communications throughout the *EMESRT Equipment Fires Project 4* lifecycle. The Plan provides all members of the *Working Group* with a robust structure to ensure all stakeholders are kept informed regularly and effectively resulting in a positive contribution to the project.

4. SCOPE

The scope for the **Working Group** includes:
1. Attending workshops for the purpose of sharing information
2. Reporting on initiative progress
3. Working collaboratively all stakeholders
4. Collaborate on and form an industry position on equipment fire problems that need to be resolved
5. Working as team members or initiative leaders to contribute, support, lead the discovery, articulation and presentation of the problems for resolution

The scope for **EMESRT** includes:
1. Provide initiative leadership through Project Lead and support through secretariat
2. Engage expert consultant(s) for strategic activities related to the initiative
3. Facilitating, participating, and guiding collaborative workshops
4. Influence the course for change in not only the design and installation consistencies but in developing guidelines or a check list of sorts that suppliers can use to determine if they are meeting/satisfying end user needs/requirements
5. Monitoring initiative progress

6. Communicate with ISO, SAE, ICMM, other Associations and Standards organisations and facilitate the path to a successful open architecture protocol
7. Compile and disseminate all materials related to the initiative
8. Post all final documentation into the Trello Library

5. STAKEHOLDER MANAGEMENT

Stakeholder Management includes the processes required to identify the people, groups and entities that could affect or be affected by the project, analyse stakeholder expectations and their impact on the project, and to develop appropriate strategies and tactics for effectively engaging stakeholders in a manner appropriate to the stakeholders' interest and involvement in the project.

The plan is also designed to:
- Support the delivery of the EMESRT Equipment Fires Project 4
- Identify all relevant stakeholders
- Develop approaches to inform stakeholders
- Increase support and buy-in for the development of the self-review assessment tool
- Confirm required stakeholder management activities and plan for their delivery through the use of the agile project management platform Trello
- Confirm project plan progress measures and milestones
- Ensure that each project step is successful

5.1 Stakeholder register

A stakeholder register is maintained by the EMESRT Coordinator. Stakeholders are grouped into EMESRT focus areas, eg. Vehicle Interaction, Human Factors Design for Diversity, Tyres and Rims and in this instance Equipment Fires.

A stakeholder can request to be removed from the register at any time, and will no longer receive communications from EMESRT unless the stakeholder notifies otherwise. The register is not shared outside of EMESRT. The registers contains the stakeholder name, entity, focus area, and email address.

5.2 Levels of engagement

The Equipment Fires working group will be engaged for the duration of the project. The project lead will ensure that all working group members have the right information at the right time. The project lead will notify the working group if any issue arise that will impact the project and discuss options. Equipment Fires stakeholders fall into one of the following four engagement categories:

Table 1: Stakeholder categories and level of engagement.

1	Partner	Partnerships | Regular updates | Plus 2, 3 and 4
2	Involve	Workshops | Forums | Participatory decision-making process | Plus 3 and 4
3	Converse	Workshops | One-on-one discussions | Face to face meetings | Plus 4
4	Inform	Webinar minutes | Annual Report | Website news and events | LinkedIn

5.3 Key stakeholders

Key stakeholders listed in Table 4 were identified during the workshop held on the 1 August 2019. Each stakeholder is categorised into the below 5 categories:

Table 2. Stakeholder categories and level of influence 1-5 with 5 being the lowest.

1	Leading	Are actively engaged in EMESRTs activities and are willing to assist to help EMESRT succeed, eg. Involved in teleconferences, workshop, projects, leads activities, supports all aspects of EMESRTs vision
2	Supportive	Are supportive of EMESRT and wish it to succeed, eg. Participates in teleconferences, workshops, positive about EMESRTs vision, etc
3	Neutral	Are aware of EMESRT but have no opinion regarding their support for it, eg. EMESRT has no impact on stakeholders in this category, fence sitter
4	Resistant	Are aware of EMESRT but not in support of it due to their own activities, eg. Knows of EMESRT but is resistant to engage
5	Unaware	Are not aware of the EMESRT or its work nor the potential impacts on them, eg. Works in industry but unaware of EMESRT

Table 2. Stakeholder categories and level of influence.

STAKEHOLDER NAME	LEVEL OF ENGAGEMENT (see Table 1 above)	LEVEL OF INFLUENCE (see Table 2 above)	TOTAL SCORE
Accreditation Entities	5	5	
Alternative Technology Vendors		5	
AusIMM		3	
Australian Coal Association Research Program	2	2	
Coal Mining Safety and Health Advisory Committee	2	3	
Commissioner for Mines	2		
EMESRT Advisory Group	1	1	
EMESRT Working Group Members	1	1	
EMESRT Member Companies	2	2	
Engineering Australia		3	
Institute of Quarrying			
Equipment Service Providers and Contractors			
Equipment Suppliers			
Expert Consultants	3		
Industry specialist tyre service providers	5		
International Council on Mining and Metals	2	2	
International Standards Organisation	2	2	

Maintenance Contractors			
Minerals Council of Australia	2	2	
Minerals Industry Safety and Health Centre	2	2	
Mining and Resource Associations			
Mining Safety and Health Advisory Committee			
OEMs (assets, tyres, rims, speciality equipment)	5		
OEM Companies	2	2	
Ombudsman	5		
Regulators by region, country and state	2		
Research bodies	2	2	
Training Service Providers	5		
Standards Australia	2	2	

6. ENGAGEMENT METHODS

The project lead will take the lead role in ensuring effective engagement methods are applied to this project and will discuss possible key messages and timing with the working group relevant to stakeholders and the wider EMESRT community and identify a suitable communication channel, eg. LinkedIn, website news, media release, email.

Table 3: The table below indicates the planned communication schedule.

COMMUNICATION TYPE	FREQUENCY	FORMAT	TARGET AUDIENCE	OWNER
Progress report	Monthly	Teleconference	Working group	Project lead
Trello project board	On a regular basis	Online	Working group	Project lead/support resource
Project update	As required	Online media	Key stakeholders	Support resource
Project update	Annually	Annual report	Wider community	Support resource
Workshop				
Face to face (both formal and informal)				