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| **Topic entry (tick boxes that are applicable) 1 X 2  3  4  5  6  7**  **8** | |
| **Entry number (MPA Ref)** | 22032 |
| **Title of Entry** | Enhanced access & egress safety system for emergencies. |
| **Name of Company** | Breedon Group Ltd |
| **Location** | Leinthall Quarry |
| **Video**  **(if yes, please include URL for video)** | No |
| **Other resource**  **(if yes, please include description)** | 3 attachments |
| **Fatal Theme (tick boxes that are applicable) 1**  **2  3**  **4**  **5 X 6** | |
| **BACKGROUND** | |
| Excavator operative was working a blast pile, creating a bench and rock trap as required. Whilst carrying out this task, the operator decided to manoeuvre a large rock out of the way, which unfortunately naturally split. The top section of rock slid across the rock trap and hit the access platform of the Hitachi 530. The impact of this deformed the access system and the steps proximity switch had also been broken. This disabled the machine’s ability to move from a potentially dangerous situation, e.g., further rock fall.  This occurrence has demonstrated the potential for an operator to not be able to track out of harm’s way if such a system (access step proximity switch) is broken or breached. Currently they would rely solely on breaking cab glass and escaping, which could be deemed more hazardous outside of the machine’s falling object protection (structure).  We wanted to identify a solution to the above, so that an operative can remove himself from a dangerous area without leaving the machine. Between ourselves and the excavator manufacturers, we have developed and installed an emergency bypass switch which enables us to do just this.    This entry relates to that of “The fatal 6” – Fatal 5 (Struck by moving or falling object). | |
| **MANAGEMENT OF PROCESS** | |
| We initially investigated the incident and gathered learnings, before concluding that there is a considerable improvement to be made to excavator safety provisions. These discussions included persons involved in the incident and later within our weekly health and safety forum. After deciding that it would be effective to fit an emergency bypass switch, we reached out to various excavator manufacturers who supply us to discuss the implementation of this device.  We had to reassure the manufacturers that the original purpose for the proximity switch was not lost with this modification, as there is still a need to protect plant from accidental damage in routine operation. Although, in this case, we are ensuring people are put before plant.  The communication between us and the manufacturers was effective because we made it clear and precise as to the potential for harm but allowed them to suggest preferred solutions that met our expectations.  Senior management could see the H&S improvements that this would bring to tasks at the face, recognising its high-risk environment and the importance of protecting our people. They encouraged and tracked the time and research of this development.  This initiative has been undertaken by the site team and manufacturers but with the full support of the region. The potential wider learning and benefits to the company have been recognised. Working with the manufacturers ensures that the solution is properly designed, constructed, and installed.  Once we have had a chance to review the modification, the intention is to work with the manufacturers to share this information.  The type of incident under consideration would be a high hazard low frequency event but must be addressed if we are to reach our ambitions of *target zero harm*. | |
| **BENEFITS** | |
| Benefits - It resolves a newly identified high risk issue in relation to machine design and operation.  It provides further protection for our employees & contractors when faced with a potentially catastrophic scenario.  Fatal 5 – It means that the machine operator can now escape under the protection of the machine without putting themselves in harm’s way, rather than the alternative of exiting the machine on foot when the risk of further falling objects or ground instability is still present or high.  Changed behaviour/health and safety culture – The investigation looked beyond the immediate root cause of the incident, and we have considered the potential harm of this type of plant damage. It has demonstrated how effectively we work as a team when assessing & reviewing incidents or near misses with the purpose of improving current SSOW.  Since the implementation of this system improvement, we have had positive feedback from site operatives who carry out task at the face.  This sends out a positive message to our employees & contractors that their health safety and wellbeing will always be our number one priority. | |
| **INNOVATION** | |
| It is innovative, we have questioned and reviewed the working of an existing protection device and identified potential flaws and came up with a solution that addresses the issues whilst carrying out its original purpose. We have identified a way to stretch its capabilities/functions to meet both plant & people.  We believe this is new for all access protection systems (global). | |
| **DEVELOPMENT & TRANSFERABILITY** | |
| This will be rolled out to all sites within Breedon. It can be applied to all extractive and major civil engineering activities.  This has the potential to be applied as a standard on this type of machinery, or at the very least as guidance. | |
| **NB if document has embedded images try and include these**  **If other documents provided say additional information available.** | |