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| **Topic** | Safer maintenance and housekeeping |
| **Entry number (MPA Ref)** | 202476 |
| **Title of Entry** | Totally Integrated Maintenance Portal (TIM Portal) CMMS |
| **Name of Company** | Aggregate Industries |
| **Location** | Ashington |
| **Video** **[ ]  (if yes, please include URL for video)** | No |
| **Other resource X (if yes, please include description)** | 9 images |
| **Fatal Theme (tick boxes that are applicable) 1 [ ]  2 [ ]  3 [ ]  4** **[ ]  5 [ ]  6** **[ ]**  |
| **BACKGROUND** |
| Ashington in the past has used a T card system to manage work orders. There were issues with traceability, history of the plant and T cards going missing.It was hard to identify when services, inspections and Planned Preventative Maintenance (PPM) on equipment were due and whether these had carried out. To check if these had been undertaken, staff look through the site specific HSE drive to find the relevant folders and reports and to ascertain their required frequency, staff would need to look at the HSE standards/guidance in the IMS.There was no system in place to organise shutdown work or daily tasks for the fitter/electrician and they would not have an understanding of the plant’s KPI’s. The PPMs were disconnected and would only be carried out on a down day. There was no visual inspection route, so imminent failures weren’t noticed. |
| **MANAGEMENT OF PROCESS** |
| The maintenance manager was keen to modernise the way maintenance was carried out on site and make the site proactive rather than reactive.Other sites within the company were consulted to find out what systems they had in place that could offer a solution. There was no definitive answer and other sites seemed to be in a similar position.It was decided what should be added to a spreadsheet through maintenance experience and the HSE requirements of the company.The WO’s needed to be easy to add instantly on work devices for the technicians and operators on site. A google form which linked to the sheet was bookmarked on the technicians’ mobile devices.The schedule sheet was added to the planned work for the current and following week, enabling the technicians to organise the tasks efficiently. It has been designed to be easy to navigate on a mobile device and offers quick links which include:* Site RAMS
* Technical drawings (all electrical, mechanical, hydraulic etc that are available in a few clicks in PDF form).
* TBM sheet (a sheet specifically designed to monitor the life expectancy of plant parts e.g. bearings, skirts, etc and has conditional formatting to highlight if something is overdue to be changed).

For technicians who are not ‘tech-savvy’, the ‘Printable WO’ sheet was created. This assigns the work and once the WO number is input, it auto populates the sheet with the information required. This can then be printed and given to the technician.The PPM sheet was added to keep track of all service, inspections and PPM’s. These are ticked off when they are done and percentages calculated for each month on compliance, with the target for each one being 100%. The sheet allows staff to see when anything is due and everything is hyperlinked directly to the relevant place on the HSE drive, saving time.  |
| **BENEFITS** |
| The PPM’s have been converted to a google form and the information fed into a spreadsheet, offering traceability and history. It’s also formatted as a quiz, so any score less than 100% means there is a defect.For shutdown work, a basic Gantt chart was created to organise tasks for both employees and contractors. This is printed in A3 and left in the workshop. It also calculates the completion percentage of the planned tasks.The dashboard shows maintenance KPI’s, in graphs, charts and text including:* OEE (the data is pulled directly from another sheet which gets updated with downtime figures and is filtered by production line, showing the year to date average and the target %).
* New vs completed WOs for the week, month and year.
* Total WOs active, in progress, not started and overdue.
* Maintenance service compliance.
* WO statistical pie charts.

Training was given to technicians and team leaders on how to use the system.The project reflects the MPA vision zero values:* Safer production (ensuring machines are in safe operating condition)
* Safer maintenance and housekeeping
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| **INNOVATION** |
| TIM Portal started out as an empty worksheet and has brought the entire maintenance planning at Ashington into the 21st Century.There are many companies that offer CMMS software solutions, which usually charge a monthly fee per user. Other than cost, there are other benefits to using the TIM Portal.The biggest advantage is full customisation and integration to the company’s HSE with the use of google. The simple layout and easy to see KPI’s help keep the plant compliant with all services, inspections and maintenance. The KPI’s are directly linked from the TIM Portal to the onsite Information Station on the shop floor. |
| **DEVELOPMENT & TRANSFERABILITY** |
| The TIM Portal can be used and customised to any production factory with the use of google workspace, regardless of industry or sector.It is simple for other sites to adopt and has been used to roll out the TIM Portal within the Northern region of the concrete products division including Chryston and Carnforth sites. These sites have given great feedback after a brief training session. They have the full functionality as the original TIM Portal at Ashington and are frequently updated by the new owner at the site. |
| **NB if document has embedded images try and include these****If other documents provided say additional information available.** |