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| **Topic** | Safer maintenance and housekeeping |
| **Entry number (MPA Ref)** | 202428 |
| **Title of Entry** | Maertz kilns 1 & 2 lance shroud protector installation upgrade  |
| **Name of Company** | Lhoist |
| **Location** | Hindlow |
| **Video** **[ ]  (if yes, please include URL for video)** | No |
| **Other resource X (if yes, please include description)** | 1 x Powerpoint |
| **Fatal Theme (tick boxes that are applicable) 1 X 2 [ ]  3 X 4** **[ ]  5 X 6** **[ ]**  |
| **BACKGROUND** |
| Due to wear and tear and metal fatigue over time, the lance shroud protectors can break off and in turn damage/break the gas lances in the kiln. This then involves down time and loss of production (2-4 days) by shutting the kiln down so it can cool before confined entry is required. This is a high-risk activity due to heat inside the kiln from the stone/lining surfaces, working on hot material (stone), cavities from uneven stone and exposure to gases. |
| **MANAGEMENT OF PROCESS** |
| The maintenance team designed a new shroud cover that could be completely fitted externally without the need for confined space working. A meeting was held with a mechanical engineering contractor to fabricate the new shroud covers. There are a total of 24 covers to fabricate, 2 have been installed externally removing the high-risk activity of entry into the kiln. All personnel were involved with the prototypes to ensure there were no manual handing issues, and a bespoke frame was designed to lift the covers. A thorough risk assessment was carried out and a method statement generated. This has been shared with head office as the company has other Maertz kilns on sites around the world. |
| **BENEFITS** |
| * Removed the need for confined space entry and the associated hazards of heat inside the kiln.
* Eliminated the need to degas the kiln as that was contracted out to an external company, with money saved.
* Quality of the product is not impeded by the new process.

Fatal 6 mitigated; * Contact with moving machinery and isolation.
* Struck by moving or falling object.
* Work at height.

The process could take on average 3 days to complete but this can now be completed in one shift.* All activity where personnel were at high risk has now been removed.
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| **INNOVATION** |
| The maintenance manager and supervisor discussed the issue of replacing the shroud covers, and both came up with a solution and design to the long-standing problem of having to shut the kiln down and exposing personnel to high risk activities Communications with the engineering contractor who fabricated the covers, provided support to the project, which was fully backed by senior management. |
| **DEVELOPMENT & TRANSFERABILITY** |
| This project was communicated to head office in Belgium and sent internally to other locations throughout the group. |
| **NB if document has embedded images try and include these****If other documents provided say additional information available.** |