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| **Topic entry (tick boxes that are applicable) 1 [ ]  2 [ ]  3 [ ]  4 [ ]  5 [ ]  6 [ ]  7** **[ ]  8 X** |
| **Entry number (MPA Ref)** | 22088 |
| **Title of Entry** | The Importance of Joint Collaboration in Establishing a Positive Safety Culture. |
| **Name of Company** | Northstone Materials |
| **Location** | Toome Tile Plant |
| **Video** **[ ]  (if yes, please include URL for video)** | Yes |
| **Other resource** **[ ]  (if yes, please include description)** | 6 images |
| **Fatal Theme (tick boxes that are applicable) 1** **[ ]  2 X 3** **[ ]  4** **[ ]  5** **[ ]  6** **[ ]**  |
| **BACKGROUND** |
| The Northstone Materials Tile Plant in Toome has been manufacturing and supplying a range of high quality roof tiles and accessories to customers in Northern Ireland, the Republic of Ireland and Great Britain for 14 years. After years of development and improvement, the factory now has the potential to produce up to 65 - 70,000 tiles per day, approx 1.8 million tiles per month. They use automated machinery to compress a semi-dry concrete mix onto a tile mould which is then cured in ovens. After curing, the mould is removed to leave a dry concrete tile which is painted for consistency in colour and packed onto pallets to be sold. The Tile Plant has achieved ISO 45001, ISO 14001 and ISO 9001. It is regularly inspected by the Health and Safety Executive Northern Ireland. In 2020 and 2021 respectively a new Manager and Assistant Manager – Hugh Bradley and Aaron Quinn – were appointed. Since this change in management, the tile plant has focused on creating an open and honest atmosphere to encourage the workforce to suggest healthy, safe, environmental and operational improvements. By empowering their team to be positive and think proactively, the tile plant has and continue to implement many valuable improvements. The team have actively focused on collaboration and teamwork which has driven a positive safety culture where employees are engaged and feel valued. Although each individual improvement may appear relatively minor considering the minimal investment required, when accumulated they have made a significant difference at the plant and most importantly have created a more enjoyable, safer workplace where employees feel valued. |
| **MANAGEMENT OF PROCESS** |
| As part of the ongoing initiative to increase employee engagement, a range of health and safety issues and potential solutions were raised by employees for discussion with the local management team at safety meetings and employee consultations. Key low-cost improvements implemented include: 1. Talent Learning Management System (LMS) –Training management software designed to familiarise new employees with the process line and terminology through interactive overview videos before entering the plant. Introduced by the manager after recognising that new starters had varying levels of process line knowledge despite training. Reduces likelihood of injury from inexperience (human factors). Still in trial stages and will be continually improved.
2. Beacon Installation – A beacon was installed outside the factory that alerts forklift drivers when skips inside are full. Issue and solution identified by factory operative, Adrian Purdy, who would previously have left his station inside to alert forklift drivers outside. This has reduced unnecessary pedestrian movement in the busy yard.
3. Grid Installation – Grid fabricated inhouse and installed over waste concrete skip to prevent tile moulds from falling in. Originally raised on the ‘Fix What Bugs You’ whiteboard and implemented by operative Rainers Rirdancis. Risk of back strain removed as operatives are no longer required to reach into the skip to collect fallen moulds.
4. Disposable Hi-Vis – Complaints raised by paint operatives regarding paint not washing out of hi-vis PPE. This compromises PPE reflectiveness. Jessica Halton, purchasing clerk, sourced disposal hi-vis PPE suits and employees are encouraged to change these frequently to remain visible.
5. Retractable Hose – Several operatives raised concern about loose hoses not being tidied away. Retractable airline hoses were installed across the plant to reduce this potential trip hazard.
6. Housekeeping – Stores re-organised so heavy parts stored on bottom shelves. Re-organisation encouraged by consultancy firm Outform who were employed by the plant to improve efficiency and safety. Reduces likelihood of parts rolling from shelf and injuring operatives.
7. Auto Retractable Knife – Hugh Bradley (manager) commissioned the fabrication of an auto retractable knife holder to reduce risk of injury when opening pigment bags. Operatives had previously raised issue with having to use loose stanley blades to open the bags on the ‘Fix What Bugs You’ WhatsApp group. The holder also encourages better housekeeping.

These improvements have required minimal investment but brought significant benefits. They have proved successful with positive feedback received from operatives and management at weekly team meetings. A Best Practice Alert highlighting the importance of implementing ‘smaller’ improvements to employee morale and promoting a positive safety culture was issued across all 35 Northstone Materials and Island Aggregates locations. It was shared as Best Practice across CRH (3,100 locations worldwide). This submission reflects the following MPA Vision Zero Values: * Empowerment – Employees empowered to share issues and devise innovative solutions.
* Engaged Visible and Consistent Leadership – Management regularly consults operatives in formal and informal settings to support their suggestions and initiatives.
* Zero Tolerance of Unsafe Working Conditions – Management sought appropriate solutions to a potential hazard.
* High Quality Implementation – Involving employees during design and trial stages to ensure effective solutions.
* Collaboration and Sharing – Collaboration with employees from problem to solution within the tile plant and in other areas of the business and across the group.
* Compliance – Manager took ownership of their legal responsibility to protect employees from all potential hazards.
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| **BENEFITS** |
|  When considered individually, each low-cost improvement has its own list of benefits: 1. Talent Learning Management System (LMS) – Employee competency has improved since the introduction of this system which is evidenced by an increase in recorded training hours. LMS ensures all employees receive consistent job specific training.
2. Beacon Installation – Reduces pedestrian movement which reduces potential of machine-pedestrian collision. (Fatal 6).
3. Grid Installation – Not only does this installation lower the likelihood of back strain, but it also is less time consuming for operatives and therefore more enjoyable working environment and efficient production.
4. Disposable Hi-Vis – Ensures the site remains compliant with the law and safeguards painter operators by ensuring they remain visible to mobile plant operators. This has improved operator morale by wearing clean company compliant PPE.
5. Retractable Hose – Reduces the likelihood of injury or a lost-time-incident by removing a tripping hazard. The housekeeping of the working area has improved and prevents the hose tangling – a source of frustration for employees.
6. Housekeeping – Efficient use of storage has reduced the likelihood of injury or a lost-time-event from manual handling and created a safer working environment. Further efficiencies included easier visual checks on stock levels.
7. Auto Retractable Knife – The risk of injury was reduced as loose blades no longer used, operator morale improved as management implemented a solution to the issue, improved efficiency as a cutting source was permanently stationed where required.

These improvement projects are of little cost to the company and extremely innovative. Each has been individually very successful in creating a safer working environment. Further benefits can be seen when they are considered collectively. Employees feel valued and work more efficiently. Serious issues are less likely to go unreported due to the positive safety culture that has been established. This is a result of management showing a willingness to listen to employee concerns and collaborate to achieve safe solutions, ultimately resulting in a positive and safe working environment. |
| **INNOVATION** |
| Effective open communication has been key to the improvement of the work environment for all persons entering the tile plant. Management keep an open line of communication with operatives at all times. Methods used at the plant could be adopted and used across the industry. Such as: * A ‘Fix What Bugs You’ whiteboard/ WhatsApp group. Employees can suggest improvements immediately and anonymously without having to speak directly to a supervisor or manager. The whiteboard is reviewed weekly by management and when improvements are enacted, they are recorded and wiped from the board.
* Weekly team meetings that encourage transparency and collaboration of all employees to resolve operational and health and safety issues.
* Safety observations that are logged onto a companywide health and safety system. A weekly report of safety observations is distributed across the business to find innovative solutions that may have already been enacted elsewhere in the company (cross-functional collaboration).
* A ‘My Door is Always Open’ policy that provides employees with an informal method of reporting issues.

Although encouraging open lines of communication is not necessarily a new approach, the power of collaboration with employees on the ground is often overlooked. The team are constantly reviewing different techniques and methods of encouraging communication to improve standards – this dynamic approach has proved very successful. |
| **DEVELOPMENT & TRANSFERABILITY** |
| This collaborative approach has been encouraged across all Northstone and Island Aggregate locations. Northstone recognises that production employees are immersed in the process and are our most valuable source of knowledge, experience, ideas and solutions. The low-cost initiatives promoted and trialled by the tile plant will be introduced across Northstone and communicated within CRH Plc as best practice. Collaboration and teamwork have driven a positive safety culture where employees are engaged and feel valued. The financial cost of the improvements are affordable to operators of all sizes – the cost of the engagement program is just investment in time. |
| **NB if document has embedded images try and include these****If other documents provided say additional information available.** |