mpa
essential materials
sustainable solutions

SHARING GOOD PRACTICE
www.safequarry.com

Sharing good practice 2012/13

CPD Material mpa

ENTRIES FROM THE HEALTH AND SAFETY AWARDS

Health & Safety Awards

PICS
THE CONTRACTORS' CHOICE

PICS hosts the MPA Contractor Database. Our services streamline and simplify the qualification process, reducing administration and generating high-quality, client-specific data.

While every industry has unique challenges, all share the burden of contractor/supplier prequalification and review. The PICS consortium and its specialists help organisations manage this process in these industries:

- Aerospace
- Building Materials
- Construction
- Energy
- Food & Drink
- Hospitality
- Manufacturing
- Mining
- Petrochemical
- Pharmaceutical
- Telecommunications
- Waste Management

How do Members benefit?

Departmental resource efficiency, a system configured to their internal requirements and access to a large population of contractors and suppliers working throughout the industry.

How do Contractors benefit?

The prequalification process is affordable, uncomplicated, streamlined and backed by a full support staff. They also benefit from using their PICS membership to qualify for other MPA members.

Our Proprietary Toolset

PICS Organizer™

The high function software platform that efficiently connects clients and contractors.

DocuGUARD™

Client configured, full-service process of collecting and verifying relevant prequalification information.

AuditGUARD™

We conduct a progressive range of audits for defined groups of contractors and suppliers.

InsureGUARD™

Insurance certificate management programme to ensure contractors and suppliers meet Members' insurance requirements.

EmployeeGUARD™

Tracks individual employee qualification to satisfy regulatory, site-specific and other requirements.

Contact PICS today to discuss your requirements and learn more about the MPA Contractor Database. Please say that you're a MPA Member to be directed to our dedicated team.

0845 609 1882 | mpa@picsauditing.com | PICSauditing.co.uk

Foreword

Improving health and safety performance is the top priority of the MPA and its members. We all know that if we are to achieve our target of Zero Harm, continuous improvement within each company and collectively as a sector, is vital. MPA members have proved themselves to be committed to this aim by being unselfish and sharing ideas, best practices and experiences throughout the year at our popular 'Safer by Sharing' seminars and at our Health and Safety days on site. These events are bringing hundreds of practitioners together and the exchanges that take place do clearly make a difference.

In similar vein our annual Health and Safety awards attract huge numbers of award applications which are judged independently and celebrated annually at our Health and Safety Conference and Awards event. This publication epitomises the MPA ethos of sharing the best ideas so that all can benefit and hopefully be inspired to think of new ideas which in turn may be shared.

The short listed entries summarised in this document can also be found online at Safequarry.com together with all the ideas from previous years and many more routes to best practice. I do hope that you will find the 2012 contributions helpful and worthy of discussion with colleagues as we look forward to receiving new ideas for celebration and sharing in 2013.

Nigel Jackson
Chief Executive

John Crabbe Memorial Trophy for outstanding excellence - Singleton Birch Limited

Contributors to H&S Awards in 2012

Acheson & Glover Precast Limited
Aggregate Industries - Bardon Aggregates
Aggregate Industries - Bardon Asphalt
Aggregate Industries - Concrete Products
Aggregate Industries - Geological Services
Breedon Aggregates Ltd
Breedon Aggregates (England) Ltd
Breedon Aggregates (Scotland) Ltd
Brett Group
Brett Concrete Ltd
Brett Landscaping
CEMEX UK
CEMEX UK Operations
CEMEX UK & Response Engineering Ltd
Colas Ltd
Creagh Concrete Products
EPC-UK Ltd
Francis Flower
Gibson (Banbridge) Ltd
Hanson UK
Hanson Thermalite
Harsco Metals (SteelPhalt)
John Wainwright & Co Ltd
Kilwaughter Chemical Company Ltd
Lafarge Aggregates and Concrete
Lafarge Cement UK
Lagan Cement Ltd
Marshalls plc
Marshalls Mono
Midland Quarry Products
Myers Group
Sandtoft Roof Tiles
Sibelco UK Ltd
Singleton Birch Limited
Stanton Bonna Concrete
Steetley Dolomite Ltd
Tarmac Limited
Tarmac Buxton Lime and Cement
Tarmac Ltd & Contractor Safety Partnership
Tarmac National Contracting
United Asphalt Ltd

Health & Safety Best Practice Awards '12

target zero

Introduction

This guide summarises the best ideas and innovations from the MPA's Health and Safety Awards 2012 that were featured at BAFTA, 195 Piccadilly, London W1, on 13 November 2012

Some of the entries are flagged to show that there is a video available - the videos can be viewed at www.safequarry.com. In addition to this year's entries, awards from previous years can also be accessed. The website features a database of incident alerts, toolbox talks and the latest on the industry's hot topics. By registering on the site, you will receive email alerts when new items are added and an 'information basket' where you can store those that most interest you.

The resources are ideal for training purposes and for Continuing Professional Development (CPD). We hope that organisations of all sizes with an interest in quarrying and mineral products will find them useful and accessible. To ensure that your browsing on www.safequarry.com is recorded for CPD purposes, you do need to log in every time that you access the website.

How to use this guide

This guide is a compilation of solutions that MPA companies have applied to minimise and, where possible, eliminate health and safety risks arising from their daily operations. The ideas and innovative approaches are often very simple and inexpensive and could readily be applied to a range of common industry problems.

It is hoped that by reviewing this guide, particularly those sections relating to your main area of work, you will recognise solutions that could be applied within your own workplace or that will generate an idea for an alternative solution.

The guide has been divided into seven sections to reflect the categories used in the MPA awards. They focus on those areas that have the most impact on improving health & safety in the work place. We have indicated which entries were prize winners, and which have video clips available. To help you locate entries relating to a certain subject, we have provided a keyword index. If you would like more information on an entry than that available via www.safequarry.com, please send an e-mail to info@safequarry.com quoting the entry number which is located immediately to the left of the entry title.

The sharing of best practice is crucial in helping the industry to achieve target zero.

Contents

86

Automated external path surface grinder for an asphalt plant dryer

AWARD WINNER

ON VIDEO CLICK

Midland Quarry Products Ltd > Griff Quarry and Asphalt Plant

DESCRIPTION

A 'safer by design' working group at Midland Quarry Product's Griff Quarry and Asphalt Plant has developed a remote grinding ring attachment to safely remove flat spots from the roller path rings whilst the dryer is rotating. The system can be easily fitted onto all asphalt plants and enables the fitter to control an angle grinder from outside the guarding area.

BENEFITS

- Removal of 'live work' risk to team members
- Reduced wear to drum alignment rollers once the path rings have been ground down
- Reduced noise and vibration on the asphalt drum and consequent benefits to other parts of the plant.

109

High visibility safety zones

RUNNER UP

ON VIDEO CLICK

Tarmac National Contracting > Birtley

DESCRIPTION

A number of Tarmac's on-site technicians were involved in near hits whilst they were testing material laid by the surfacing gangs either at night or during a period of poor visibility. Tarmac recognised that the technicians needed better protection and to be made more visible to plant and vehicle drivers. High visibility flares are now used by the technical team during these periods of poor visibility to indicate the diversionary path away from the area being tested and to create a safe working area. The flares can also be attached magnetically to test equipment.

The LED flares being used are rechargeable and about the size of a hockey puck. They emit ultra bright light through 360°. The system has been passed on to all regions within Tarmac National Contracting as best practice.

BENEFITS

- The working zone is clearly identified to site traffic
- The visibility of testing equipment has been much improved
- The risk to the technicians working on-site has been reduced.

visit www.safequarry.com for more details or email: info@safequarry.com

9

Hot storage cleaning

Aggregate Industries > Bardon Asphalt > Back Lane Quarry

HIGHLY COMMENDED

DESCRIPTION

Operatives at Bardon's Back Lane Asphalt Plant were spending five to six hours every month cleaning the storage bin tops to avoid excessive build ups of spillage. This spillage hardens on top of the bins and requires regular cleaning with jack hammers and shovels. This involves working at height whilst using vibrating tools and shovels with all the additional hazards this entails.

Their solution to this problem was to trace heat the tops of the bins and then plate with stainless steel.

BENEFITS

- Cleaning is now completed only using shovels for to 10-15 minutes every couple of months
- The need to use vibrating jack hammers has been eliminated
- Reduced risk of falls and manual handling injuries.

BEFORE

AFTER

148

Bitumen safety valve

Aggregate Industries > Bardon Aggregates > Westleigh

HIGHLY COMMENDED

DESCRIPTION

The bitumen weigh kettle at Aggregate Industries' Westleigh Asphalt Plant is operated hydraulically. The hydraulic cylinder fails to the open position. The cylinder uses hydraulic pressure to keep it shut. If a power cut occurs or the hydraulic system fails, the bitumen weigh kettle cylinder opens when there is a weight of bitumen in the kettle. If the seal of the mixer door is not perfect or the door is open, the bitumen gets thrown out of the mixer onto the ground below.

To overcome the potentially fatal consequence of this, staff at the plant suggested a solution. This has now been implemented. It involves introducing a 'double relief safety system' into the hydraulic line feeding the bitumen weigh kettle cylinder. It works by keeping a positive 500psi hydraulic pressure on both sides of the weigh kettle cylinder. This means that the cylinder cannot open until the hydraulic system is fully operational before, during or after a power failure.

BENEFITS

- No unexpected loss of hot bitumen through the weigh kettle during site power failures
- A safer working environment and a potentially fatal hazard eliminated
- Site personnel motivated by seeing their ideas explored and acted on.

88

Reducing asphalt surfacing contractor manual handling by structured material improvements

Midland Quarry Products > Cliffe Hill Quarry

DESCRIPTION

MQP had received feedback from contracting customers complaining about difficulty and the physical effort required to hand lay and spread asphalt materials. In order to reduce the manual handling requirement (workability) for these materials, they needed to turn this perception into a measurable and quantifiable figure that could then be improved by design mix changes.

A small working group was set up and using designs supplied by Nynas for a 'workability meter' had a device built that allowed them to measure forces required to move their 'as produced' materials.

A test protocol was established and through a process of adjustments to mix design and re-testing, workability was improved. An external site specialist was also contracted to carry out customer site visits to rate the materials in terms of manual handling (effort to lay), quality and to feed back the laying gang's perceptions. Over 1,000 samples have been tested and over 250 site visits made. Progress is closely monitored and priorities established for further work.

BENEFITS

- Achieved improved workability for laying gangs across product base
- Improved customer perception of product handling
- The approach is being adopted across the company.

96

Prevention of fire and explosion at asphalt plant

Midland Quarry Products > Ettingshall Asphalt Plant

DESCRIPTION

Following a near hit at Ettingshall Asphalt Plant which had the potential to cause a major fire or explosion, a root cause analysis review of the event was carried out to determine why this happened and to suggest possible 'safer by design' remedies.

The investigation revealed that the drive belts on the dryer barrel motor had snapped resulting in the dryer barrel ceasing to rotate. However, as the drive motor continued to run, the program control continued to provide heat to the now static mix. The high heat caused the bitumen to exceed its flashpoint and a small fire/explosion resulted. Fortunately, the plants fixed CO_2 installation was activated and nobody was injured.

A motion sensor has now been mounted next to the dryer barrel and, in future, if the barrel stops rotating, the burner will be cut off and an alarm will be raised. A similar motion sensor has been installed to monitor the cooling fan which will also cut off the burner if the fan is not operating effectively.

MQP believe that similar asphalt plants could benefit from these cost effective modifications.

BENEFITS

- Elimination of potential fire and explosion risk
- Improved workplace engagement and shared problem solving
- Involvement of all team members in root cause analysis
- Modifications can be adapted to minimise risk on similarly designed asphalt plants.

Contractors safety sponsor

29

Emergency drill exercise – Client & contractor collaboration CEMEX UK and Response Engineering Ltd

AWARD WINNER

ON VIDEO CLICK

DESCRIPTION

Response Engineering Ltd was engaged by CEMEX at Wickwar Quarry to carry out work on a dust filter unit on the secondary crushing plant. The work was high risk as it involved working at height, with hot processes and in a confined space. When reviewing the plans for the work, the contractor raised concerns about emergency access and egress.

CEMEX decided to hold a joint training exercise involving the contractor and a specialist unit, Urban Search and Rescue (USAR), who were recommended by the local fire service. The full exercise was carried out successfully and following a review, the planned work was completed without incident. All the personnel involved were confident they had planned for every eventuality.

This process demonstrated how pre-planning and a strong working relationship between the contractor and operator can help identify issues and ultimately lead to the safe execution of higher risk tasks.

BENEFITS

- Improved client and contractor working relationship (Safer by Sharing)
- Identified the need for contractors to be trained in emergency procedures
- Improved the task planning including emergency preparedness.

54

Contractor safety partnership project - 2012

Tarmac Ltd West Region and partners

RUNNER UP

ON VIDEO CLICK

DESCRIPTION

Tarmac West Region in conjunction with its major contractors set up a West Region Contractors Forum. The underpinning drive behind the partnership was to use common safety improvement tools, KPIs and reporting methods across completely independent businesses. They all shared the common goal of achieving Zero Harm. The partnership involved four key elements:

1. CONTRACTOR SELECTION AND INCLUSION

Nine companies were selected based on the type and volume of work they undertook as Tarmac West's contractors.

2. VISION AND COMMUNICATION METHODS

Companies were asked to sign a charter which confirmed their commitment to the partnership. Members participated in a monthly conference call. Each member was also asked to produce a Safety Improvement Plan (SIP) which was incorporated into a single, common SIP so that all the goals were aligned.

3. 'TOOLKIT' OF SAFETY IMPROVEMENT TOOLS

Guidance on task audits, skills assessment, running safety audits, risk assessment and cascading information.

4. REPORTING AND KPIs

Tarmac's reporting metrics were adopted as standard practice across all the partners.

BENEFITS

- Improves the supply chain safety performance
- Effective means of sharing best practice
- Empowers contractors in pro-active management of safety
- Other operators will benefit from enhanced safety awareness and knowledge of contractors
- Process can be easily adopted by other operators.

28

Freestanding shower tanker wash

Francis Flower > Dimmocks Cote Quarry

HIGHLY COMMENDED

DESCRIPTION

Francis Flower has installed a free standing shower to wash the entire 44 tonne tanker while the driver remains in the cab. The system includes a remote start/stop mechanism so that drivers or site staff do not need to leave the cab.

BENEFITS

- The washing system ensures that there are no problems with dust blowing from the tankers
- Drivers no longer need to climb onto the top of their vehicles with a hose and brush
- Significantly reduces the risk of working at height.

31

Contractor feedback system

CEMEX UK > National Initiative

DESCRIPTION

CEMEX UK undertook a series of contractor audits in the interests of partnership working, as part of the 'Safer through Sharing' initiative. The audits examined the contractor organisations in depth, reviewing their overall management arrangements, policies, training and commitment. The audits not only provided the opportunity to verify standards and commitment but also facilitated shared learning, improved communications and the understanding of systems and standards.

An automated contractor feedback system was also introduced, which enabled site personnel to record their experiences working with contractors. Feedback forms are automatically sent to relevant personnel and collated, enabling both procurement and others to monitor contractor performance. This gives the business vital feedback when it comes to determining which contractors to use and triggers an intervention when standards are identified as unacceptable.

BENEFITS

- Improved working relationships with contractors
- Eliminated the use of poor performing contractors
- Gives ownership of contractor selection to local management.

60

Cement kiln tower safety improvements

Hanson UK > Ketton Cement Works

DESCRIPTION

Hanson UK has introduced a series of measures which have greatly improved the safety of contractors when they are cleaning inside the kiln tower at Ketton Cement Works.

The kiln tower is one of the most potentially hazardous areas in the works with very hot gases and material moving through large cyclones and ducts. The tower requires regular internal cleaning using high pressure water jetting. The entry system previously relied on warning beacons along the kiln and tags being handed in to the control room. As part of the site's continuous safety improvements the Ketton team reviewed the entire process and made the following changes:

- A new tower entry system which automatically prevents access during water jetting and reduces the number of potential entry points. It also informs the kiln controller who is on the tower.
- Provided training on the hazards and protocols of entry for those entering the tower area.
- A new design for the ports used by water jetting operators to allow safe use whilst wearing the required PPE.
- A written scheme of inspection and auditing.

In addition, all work carried out on the tower has to be permitted by the controller before it starts.

BENEFITS

- Prevents jetting taking place whilst people not involved are still on the tower
- No LTIs on the tower and no near misses since the system was introduced
- Safer working environment and jetting contractors are not distracted by other personnel.

90

Walling stone picking station

Aggregate Industries > Bardon Aggregates > Stoneycombe Quarry

AWARD WINNER

ON VIDEO CLICK

DESCRIPTION

In the South West, Bardon Aggregates has traditionally produced walling stone by hand selecting suitable stones from a rockpile spread across the quarry floor. This is the most intensive manual handling activity undertaken on site as assessed by the HSE MAC charts.

Bardon Aggregates wanted to be able to select walling stone without the need for manual handling techniques. The solution they developed was a picking belt mounted on a flat bed trailer with surrounding hand rails. The operator, standing at a special station, is able to select the stones required and slide them off onto finger belts that deliver them to waiting bins.

BENEFITS

- A significant reduction in the manual handling and the risk of injury
- Reduced risk of slips, trips and falls
- Operatives less exposed to the elements as they are protected by roof and curtain sides
- Productivity has been improved
- The trailer can be moved as required.

21

Innovative tool to remove SLA strand clips

Acheson & Glover Precast Limited

RUNNER UP

ON VIDEO CLICK

DESCRIPTION

SLA strand clips are used within hollow core production to hold strand wire when it is fully stressed. The clips are a critical part of the production process as failure could result in serious injury if the strand was released during stressing.

Acheson and Glover were concerned that the traditional method of removing the SLA strand clips from the steel strand, by clamping the clip into a vice and hammering until it was released, was both potentially dangerous and could cause hidden damage to the clips.

A fitter developed an ingenious solution to this problem. He placed a bottle jack inside a steel frame. A hole in the frame allowed the strand with the attached clip to be held upright. An unused clip was placed beneath the SLA clip which was to be removed and pressure was exerted by hand pumping the bottle jack. This method released the SLA clip within seconds as it popped off the wire.

BENEFITS

- The risk of personal injury to hand and face using traditional method has been removed
- The potential to damage the safety critical SLA clips has been removed
- The lifespan of an SLA clip had been extended from one month to six+ months.
- Savings of £2000 per year have been achieved with the use of the new technique.

visit www.safequarry.com for more details or email: info@safequarry.com

63

Low level refuelling system

Hanson UK > Shap Beck Quarry

RUNNER UP

ON VIDEO CLICK

DESCRIPTION

Following an upgrade to an 87 tonne excavator at Shap Beck Quarry, it quickly became apparent that re-fuelling the larger machine was potentially hazardous as the operator had to climb onto the machine to access the filling point, dragging the fuel line up with him. A new fuelling point has been installed that includes a dry break connector and enables the machine to be refuelled at ground level. The system, developed by Banlaw Systems, also includes an automatic cut off.

BENEFITS

- Both working at height and manual handling risks have been removed
- The chance of fuel spillage has been eliminated
- The operators can refuel without being exposed to the elements
- Fuel cannot be stolen from the tank.

145

Increasing the safety of offloading through improved product design

Stanton Bonna Concrete > Stanton By Dale

RUNNER UP

ON VIDEO CLICK

DESCRIPTION

Stanton Bonna Concrete manufactures large diameter pipes. The pipes include two spherical head lifting anchors located on the top of the pipes to which chains are attached when offloading at a customer's site. The pipes do not rotate on lifting and strike the other pipes on the load because of the location of the two lifting anchors on the top of the pipe.

However, on some deliveries, the operative had to climb up ladders positioned on the flat bed truck to gain access to the top of the pipes and, when connecting chains, he needed to use both hands leaving no point of contact. This method of working exposed the operative to a risk of falling.

The solution to this problem was to install three anchor points located on the sides of the pipe (in a 2:1 formation) rather than on the top. An operative can now attach the chains whilst standing on the flat bed of the truck. The three points ensure that the pipe can still be lifted vertically without any rotation.

BENEFITS

- Significantly reduced the risk of falls whilst offloading pipes.

13

Safe access and egress to binder screen

Breedon Aggregates Ltd > Cloud Hill Quarry

HIGHLY COMMENDED

ON VIDEO CLICK

DESCRIPTION

Quarry fitters at Breedon Aggregate's Cloud Hill Quarry raised the issue of very poor access to the quarry's main primary binder screen. They were required to access and maintain the top deck finger bars at least once per week with no real means of access. Ladders were used to gain access but as they were carrying tools, operatives were unable to maintain three points of contact.

The fitters and site management came up with the idea of creating a stairway and retractable steps to gain access and, in addition, installed a moveable/lockable gate mechanism to prevent falls from the end of the screen into the discharge chute.

BENEFITS

- Safe access and egress
- Protection against falls from height
- Improved manual handling of equipment onto screen
- Reduced maintenance time.

99

Creating safer access to a quarry crusher bowl and reducing working at height risks

Lafarge Cement UK > Cauldon Works

DESCRIPTION

Cauldon Work's quarry maintenance teams have a requirement to periodically enter the primary crusher bowl to carry out inspections, cleaning and maintenance.

Where possible, systems have been put in place to reduce the need to do this. However, the requirement cannot be totally eliminated. Historically a 'Fall from Height Risk Assessment' & 'Working at Height Permit' had to be issued to enable any work to be carried out. This also involved employees having to wear fall arrest and restraint equipment.

The solution to this problem was the construction of a safety guard rail assembly that can be lowered into place when entry into the crusher bowl is required.

BENEFITS

- The guard rail assembly can quickly and easily be installed
- Maintenance operatives are no longer required to wear fall arrest and restraint equipment
- Reduced risks associated with the need for scaffolding to be erected
- Reduces risk regarding slips/trips/fall, manual handling and stored energy (falling materials)
- Reduced production downtime.

113

Maerz Kilns – discharge table cylinder modifications Singleton Birch Ltd > Melton Ross Quarries

DESCRIPTION

Singleton Birch's operation located at Melton Ross has four lime kilns each incorporating a mechanism of shuffle feeders, known as discharge tables. These are powered by hydraulic cylinders. The discharge tables control the output of the calcium oxide from the kilns. They are hydraulically powered and operate 24 hours a day.

Should a cylinder require maintenance, it was necessary to enter the kiln to disconnect the discharge tables from the cylinders. This involved the release of a pin. Maintenance on the cylinder required an operative to enter a confined and potentially hazardous working space in the kiln to release the pin. The works designed a simple and innovative solution, moving the connection outside the kiln.

BENEFITS

- No confined space entry work is required to service cylinders
- Morale of personnel tasked with the work improved
- One person can test and repair the mechanism easily
- Reduced production downtime.

141

Packing section area safety improvements

Hanson UK > Thermalite Newbury

DESCRIPTION

It was recognised that there was a potential for an accident in the packing area at Thermalite's Newbury works. The packing plant was located near a storage area. Fork lift trucks, clamp trucks and pedestrians were using this very confined area. A number of initiatives were put in place to minimise pedestrian access and improve traffic control. These included:

- The introduction of a 'kissing gate' to prevent pedestrian access when forklifts are working in the area
- Using warning lights in key locations that were activated when the packer was operating
- Introducing new racking to create more room in the storage area
- Risks were re-assessed and a new safe system of working written, with all individuals trained.

BENEFITS

- Increased space in the storage area
- A far safer environment for all.

50

Safer storage of oil drums using roller track

Tarmac Limited > Leapers Wood Quarry

DESCRIPTION

At Tarmac's Leapers Wood Quarry oil drums were stored in a container. Manoeuvring 205 litre oil drums within these cramped spaces was a hazardous activity involving at least two operatives. A roller track was fitted inside the container to address this issue.

The new procedure simply requires one operative to position the oil drum at the entrance of the roller track with a forklift. The drum is transferred to the rollers and with a gentle push, they travel into position. The track has a stop piece at the entrance of the track to prevent drums rolling out of position.

BENEFITS

- The risks of crushing or trapping are significantly reduced
- Manual handling related injury is significantly reduced
- Task can now be undertaken safely by one operative
- Risk of drum damage and the related environmental and safety risks reduced.

36

Cardox port safety device

CEMEX UK > Rugby Cement Plant

DESCRIPTION

Cardox tubes are used extensively in cement plants to clear process blockages by the controlled rapid discharge of high pressure CO_2 stored in the tube. Cardox ports are used to allow access to inspect and clear build up of material within the process. A port cap is removed to inspect internally for build up and, if required, the tube is then inserted to clear the blockage. However, on some occasions due to a blockage, hot material at 900°C+ immediately flows out of the port when the cap is removed. This exposes the operator to high risk and makes it very difficult to replace the cap to stop the flow of material.

CEMEX UK's mechanical team at the Rugby Plant developed a cover which can be fitted over the Cardox port, equipped with a closable spade. If material starts to flow when the cap is removed, the operator can slide the cover across stopping the flow without the need to replace the cap. A safe system of work for the inspection of Cardox ports is now in place with all operatives trained.

BENEFITS

- The operator can quickly close the port from a safe position minimising the risk of burns
- The safety of the individual does not rely on his experience, PPE factors or good luck
- The equipment is now available as a standard tool provided by Cardox.

12

Automated concrete mixer wash-out diverter chute

Breedon Aggregates Ltd > Corby Asphalt and Concrete Plant

DESCRIPTION

At Breedon Aggregate's concrete mixer plant the drivers raised concerns regarding the site wash-out facilities and in particular, the state of the floor beneath the concrete mixer pan. The method of cleaning out the pan mixer resulted in a mixture of aggregates and cement paste falling on the floor creating a slips, trips and fall hazard. The solution to this problem was an above ground wash-out bay combined with an automated retractable mixer wash-out chute. The chute enables the mixer washed-out material to be fed directly into the bay rather than onto the floor.

BENEFITS

- Significantly reduced floor contamination reducing risks
- Easier to clean the mixer resulting in improved maintenance
- Improved environmental conditions
- Less cleaning up at the end of the day for the batcher.

16

Safe access for loading pallets by forklift on platforms

Kilwaughter Chemical Company Ltd > Kilwaughter

DESCRIPTION

Kilwaughter Chemical Company reviewed the safety of their forklift truck loading operations. They developed a new design that consisted of a fixed loading position on a platform. Access to the platform is protected by a mechanical interlock system of barriers. This prevents the operator from entering the platform when the guard rail is removed to allow the forklift truck to load, and ensures that the guard rail is in place when the operator has access.

BENEFITS

- Removes the risk of falls from height
- The operator is more relaxed working in a safer environment.

57

Truck mixer washout bay improvements

Hanson UK > Swindon Concrete Plant

DESCRIPTION

Two changes have been made at minimal cost to the truck mixer washout system at Swindon Concrete Plant resulting in significant safety and environmental benefits.

In the washout bay, a steel plate recessed between two beams previously used to seal the washout pen, has been replaced with a steel door. This has robust hinges at one end and 'wedge pins' at the other. Once the pit is full, the supervisor simply knocks the pins out and swings the door open to enable the waste to be moved with a machine.

Because the supervisor no longer has to organise an external waste carrier and can open the door whenever required to rotate waste, there is no longer a requirement for deep run-off bays. The water run-off bay is now at a depth of no more than 12 inches.

BENEFITS

- No heavy lifting of a steel plate with associated savings
- Operation can be undertaken by one operator
- Improved safety by eliminating the need for deep run-off bay
- Cost of operation has been reduced with reduction in the use of specialist waste contractors
- A cleaner working environment and reduced clearance of waste spillage.

94

Performing a key process task outside the guarded area

Aggregate Industries > Concrete Products > Bardon Hill

DESCRIPTION

Aggregate Industries' Concrete Works identified that there were occasions when the press dispensers needed to be physically nudged to release concrete if they have ceased to weigh. The safe system of working (SSOW) for the removal of a blockage from the dispensers required the operator to stop and isolate the machine, enter the guarded area and remove the concrete manually, costing approximately 10 minutes downtime per occurrence, resulting in approximately 30 minutes downtime per press per shift .

A small air ram was fitted to each of the dispensers. Each air ram was designed to be adjustable so it gave just the right amount of force to nudge the dispenser releasing any concrete that had ceased to flow. The rams were activated using a manual push button that was located outside the guarded area.

BENEFITS

- Removed the requirement for operators to enter guarded area to solve dispensing issue
- Reduction in waste
- Estimated saving of £125K in operating costs.

82

Going For Gold – Bringing it all together

Lafarge Aggregates and Concrete > Granite House

AWARD WINNER ON VIDEO CLICK

DESCRIPTION

Lafarge Aggregates and Concrete developed an innovative scheme based on an Olympic theme to drive up safety standards across its business. The challenge was to involve and motivate employees across all sites to participate in improving safety whilst reducing the demands in terms of time and paperwork created by the existing systems.

'Going for Gold' is a process based on sharing knowledge and mutual support. The initiative teamed up sites with exceptional safety records with less well performing sites and, with just one report to complete, made process tracking easier.

The business was split into 12 geographic, cross-business unit teams, each with a team leader and between 70 to 150 employees. The teams competed with each other to achieve gold, silver or bronze standards across all their sites. The standards were based around five core competencies subdivided into a further 35 categories. The team could only claim the level achieved by their lowest performing site. The teams and individuals were rewarded for their success in achieving the bronze, silver and gold standards.

Monthly league tables were published showing the categories achieved by the teams.

Progress was monitored using a check list based self-audit which was verified by safety experts making site visits at different stages in the process. The audits are both environmental and health & safety orientated and therefore count towards the requirements of ISO 14001 and OHSAS 18001.

This scheme created a real 'buzz' around the business with communication being at the very centre of its success. Teams were keen to share success and best practice in the monthly newsletter and to monitor their position in the league tables.

BENEFITS

- Enhanced sharing of knowledge and best practice across the business
- Helped motivate all members of staff to be engaged in the management of safety
- Encouraged communication across different business units
- Improved safety performance whilst reducing the more onerous nature of previous systems
- The approach is now being adopted by other parts of Lafarge's business.

115

Keeping our neighbours safe – Prevention of trespass to quarries

Midland Quarry Products Ltd > Company wide

RUNNER UP ON VIDEO CLICK

DESCRIPTION

Many of MQP's operational and mothballed quarry sites are adjacent to or in the vicinity of large urban areas. MQP is aware of the traumatic effect for all involved when dealing with the tragic death or injury to a trespasser and subsequently, the experience of attending court, collecting evidence of inspections, repairs and holding of good neighbour liaison meetings.

MQP decided to improve their site perimeter reporting/ maintenance scheme. MQP's security business partner, who carried out fence line inspection and minor repairs, was asked to develop an enhanced reporting system. A computer based data recording system was implemented with a storage and retrieval data base (IRS) that all responsible managers have access to.

The system further enhances the management of perimeter fencing. In the event of any incidents, the IRS is available, at the touch of a button, to provide any information required by local councillors, liaison committees, and police etc. The system can also provide well documented evidence of MQP's management of this issue in court, if required.

BENEFITS

- Improved management of any damage to fencing
- Reduced risk of trespass
- Ability to comprehensively review all unit perimeters and risk rate them
- A secure, easily interrogated IRS (database) of perimeter management and incidents
- Improved engagement with local neighbourhood liaison committees and enforcing bodies
- Peace of mind for statutory duty holders.

visit www.safequarry.com for more details or email: info@safequarry.com

68

Better procedures – better involvement – better implementation

RUNNER UP

ON VIDEO CLICK

Sibelco UK Ltd > Country wide

DESCRIPTION

Improvements to the procedure for sheeting flat bed trucks developed using this approach

Sibelco recognised that established safety procedures were not being uniformly applied across all sites. In some cases, sites were implementing their own interpretation of the requirements. A review established that:

- Some procedures were too long and difficult to interpret
- Employees wanted to play a more active role in the development of the procedures
- A system was needed to ensure effective communication and implementation of new procedures at site level.

Sibelco have now introduced a system which:

- Involves the site operators and other relevant personnel in development of new procedures
- Issues a bi-monthly health and safety information pack containing hard copies of all new and updated company procedures and indicates clearly what action is required. Managers must sign and return a document to confirm that they have communicated and implemented the procedures on their sites, or provide an action plan for implementation.
- Teams of site experts prepare a summary version of each procedure to help understanding. These are in a format suitable for day to day use and they also provide a basis for toolbox talks.
- Sibelco's Central Steering Team considers what other support is needed to help with implementation at production sites.

BENEFITS

- Workers and managers are working collaboratively to develop user friendly procedures, leading to better understanding and 'buy in' by everyone
- People know what they must do, why it is necessary and how to do it. They are better motivated to follow procedures
- The company can demonstrate that procedures are being effectively communicated and implemented
- The procedures are better protecting the health and safety of workers in Sibelco UK.

6

The Rockfall Hazard Appraisal System (RHAS) - a practical approach to rockfall management

RUNNER UP

ON VIDEO CLICK

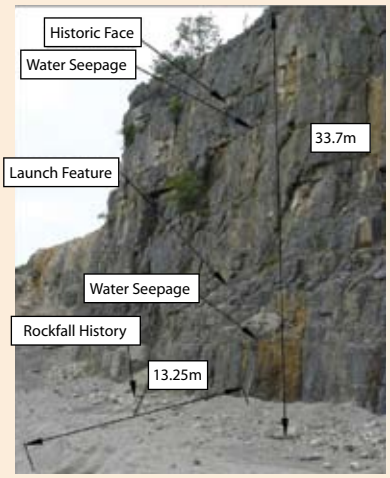
Aggregate Industries > Geological Services

DESCRIPTION

Aggregate Industries have developed a Rockfall Hazard Appraisal System (RHAS) for use by non geotechnical specialists in UK quarries. The system complies with the requirements of the 1999 Quarries Regulations and can be used to quantify and manage rockfall hazard. It clearly identifies when a geotechnical specialist should be consulted.

Research has shown that the systems currently in place for the routine inspection of faces and rock slopes do not adequately measure or quantify the hazard posed by rockfall. As a result, operators may be exposing people to risk and may be in breach of a number of regulations.

Al's system identifies simple, visual, non subjective methods of estimation of the most significant parameters relating to rockfall hazard which do not rely on a high level of experience and expertise.



In line with the requirements of the 1999 Quarries Regulations, the appraisal systems focuses only on the consequences of rockfall. The risk of rockfall actually occurring is not considered.

The visual appraisal is recorded on a form which assigns scores depending on a variety of relevant factors. The scoring system assesses three areas:

ROCKFALL POTENTIAL – visual evidence of stresses on the face, records and observations of the magnitude and frequency of falls

ROCK TRAP EFFICIENCY – the effectiveness of mitigation measures in place

EXPOSURE TO RISK – the likely exposure of individuals to the hazard

The three sub totals are then multiplied to give a final score and depending on the score, appropriate action for the operator to take is recommended. The appraisal is repeated at appropriate intervals or whenever significant change to circumstances affecting the hazard occurs.

BENEFITS

- Provides an analytical system that is easily accessible to the non geotechnical specialists
- Employees can be easily trained to use the system
- Enables operators to quantify and manage the hazard created by rockfall
- The system has been extensively trialled over two years
- It can be applied to historic rock slopes, final faces, working faces, and natural rock slopes.
- Increases management awareness and understanding of rockfall hazard.

38

Team safety training

HIGHLY COMMENDED

CEMEX UK > National Initiative

DESCRIPTION

CEMEX UK recognised that achieving the target of zero injuries requires a truly interdependent team culture, where everyone looks out for each other and each individual is quick to challenge any unsafe situations before they cause injury.

CEMEX has therefore developed a short training programme that can run as either a three-hour workshop or be used in a modular format in the workplace. The programme is specifically intended to contribute to the development of a team safety culture, where people truly believe that safety comes first and where they will be thanked for challenging unsafe behaviours or conditions, rather than criticised. It is specifically focussed on promoting engagement through discussion and self realisation with the aim of achieving wilful compliance with everyone's hearts and minds committed to safety.

The programme is designed to be delivered to small groups by managers and supervisors.

BENEFITS

- Fresh way of delivering safety messages
- Delivery by line management not by professional trainers
- Aids engagement and active participation
- Promotes open and honest dialogue
- No more 'death by PowerPoint'.

49

SCQF accredited certificate of competency in mineral processing

HIGHLY COMMENDED

Breedon Aggregates (Scotland) Ltd > Company wide

DESCRIPTION

Breedon Aggregates (Scotland) wanted to create an externally accredited training course that demonstrated competency to the National Occupational Standards that satisfied both the company requirements of Regulation 9 of the Quarries Regulations and the MPA 'Safer by Competence' policy.

The company looked at each job role and a training unit was developed using this information. Common factors were removed from all the roles and a general operations training unit was also created.

Company representatives met with the Scottish Credit & Qualification Framework (SCQF) personnel and the Scottish Qualifications Authority (SQA). They worked with their system of levels and credit scoring to achieve the goals which both the company and the MPA had laid down. The scheme is now accredited by the SCQF at all the levels required by the MPA 'Safer by Competence' policy. The SQA monitor both the training and the assessment process and it also provides external verification of the scheme.

The complete training course consists of 17 units. All operatives are required to complete the general unit before moving onto the unit which is directly related to their job role. This step approach ensures that the operatives have a firm and shared understanding of the safety, environmental and health issues that may occur within the business.

The units are based on tool box talks and short courses. The operatives put this information into practice before they are assessed. The assessment process involves three visits over several months. These are a critical part of the scheme.

Training/assessment material is reviewed constantly as changes to legislation occur and new equipment becomes available.

BENEFITS

- Demonstrates a fully competent and safer workforce
- Complies with Regulation 9 of the Quarries Regulations and MPA's 'Safer by Competence' policy
- Improves employees understanding of the business and the level of workmanship.

130

Correct lifting and stacking of flooring products

Creagh Concrete Products > Company wide

DESCRIPTION

Creagh Concrete recognised a problem with the lifting and stacking of their pre-stressed and hollowcore flooring on some supply-only projects. In extreme cases, this created the potential for a damaged slab falling whilst being lifted, a serious hazard for anyone involved.

The company created a pictorial guide covering the handling and installation of hollowcore units, floor slabs and stairs. The guide incorporated information covering topics such as how to transport and store products, the types of lifters to be used and the correct sequencing of pre-stressed flooring. It also included direct contact numbers for advice on both health and safety and technical issues.

In addition to producing the guide for customers, they also attach a label with key safety information to every slab produced.

BENEFITS

- Reduced risk of injuries due to failures when stacking or installing
- Reduced level of damage to products
- Enhanced relationship and communications with customers
- Customers' operations are more efficient with less wastage and delays due to product damage.

visit www.safequarry.com for more details or email: info@safequarry.com

64

The Maxi QRM (Quick Release Manhole) safe access to mixer drums Hanson UK > Hanson Concrete

AWARD WINNER

ON VIDEO CLICK

DESCRIPTION

Hanson has developed a safe and efficient solution for the perennial problem of cleaning the inside of a concrete mixer truck drum.

The Maxi Hatch with an integral access and egress platform was developed by Hanson's in-house team working with manufacturers McPhee. It will form part of the standard specification for the company's truck mixers and will be retro-fitted to the existing fleet over the next 18 months.

The system replaces the need to access via the 'pig's ear' (circa 12' above ground) or via the narrow, side inspection manholes.

A wide, hinged door has been fitted in place of the inspection cover. The door has an integral locking device and a rubber seal to ensure a watertight fit. In addition, an access and egress platform has been designed and fitted which allows easy access and egress for operators to enter and clean or inspect the inside of the drum. The platform ensures three points of contact due to its unique design with handrails, stable platform and collapsible ladder. A truck mixer can be cleaned out on any agreed site instead of only those with an approved platform gantry. The new hatch can also accommodate a stretcher in the event of a rescue.

BENEFITS

- Entering the mixer drum is much safer
- Operators can maintain three points of contact
- Removes risks associated with working at height
- Easy man recovery
- Clean out and inspection can be done quickly and easily at any site
- The hatch and access platform can be retro-fitted to existing mixers at a minimal cost.

20

'Safer Attitudes in Driving' campaign

Colas Ltd > Head Office

RUNNER UP

ON VIDEO CLICK

DESCRIPTION

Colas has been running a 'Safer Attitudes in Driving' (SAID) campaign since 2001. The campaign involves all members of the company. There are four key elements to the programme:

1. TRAINING – all members of staff attend training sessions delivered by in-house SAID representatives
2. MONITORING – All driving related incidents are recorded and analysed. This enables Colas to track progress and identify the frequency and nature of incidents
3. LEARNING – After an incident, those involved are interviewed to identify learning points which are then fed back into training
4. COMMUNICATION – Colas puts a major emphasis on communication both internally and externally of the SAID principles. They run external events with local schools, colleges and local authorities.

BENEFITS

- The driving culture within the company has changed
- A 46% improvement in the incident frequency rate since 2001
- Reduced insurance rates and other significant cost savings
- Recognition and awards from organisations such as ROSPA and MORR.

visit www.safequarry.com for more details or email: info@safequarry.com

25

Improved contract haulier communication tool

HIGHLY COMMENDED

CEMEX UK > Logistics and Readymix

DESCRIPTION

CEMEX were faced with the problem of communicating quickly but effectively with a contractor group in excess of 2,000. Key information such as safety alerts could be emailed out to contract hauliers, however this has limitations due to issues associated with the size of files being transferred. This was becoming a significant problem due to CEMEX's increasing use of video safety alerts, i.e. larger files. The alternative was to post the information to over 2000 contract hauliers but this would be time consuming, expensive and unsustainable.

A web portal has now been developed which all contract hauliers can access for up-to-the-minute information. This provides easy access to all of CEMEX' safety policies and standards, facilitating effective sharing of information and best practice. The web portal is helping CEMEX to raise safety standards amongst its diverse haulier base.

BENEFITS

- Instant communication – alerts sent to members when any updates are added to the site
- Removes the limitation on the size of file being used
- Sustainable approach – no printing - saving paper, electricity and ink
- Cost saving on materials and postage.

77

Schools road safety programme

HIGHLY COMMENDED

Lafarge Aggregates and Concrete > Granite House

DESCRIPTION

Lafarge Aggregates and Concrete created a programme to help raise children's awareness about road safety and to influence behaviours amongst their families and friends. The programme was run with schools in Leicestershire.

The programme consists of numerous activities and competitions creating a fun learning experience which is also relevant to the national curriculum. It was designed to be easy to replicate as a variety of Lafarge's staff were involved in running the events at different schools.

Pre-event meetings were held with teachers to agree action plans. Pupils and parents were sent letters explaining about the visit. Each programme was launched at a school assembly and run over a four week period involving pupils, teachers and a team of six Lafarge staff. At a final assembly, winners of the competitions were announced and clips of videos shown. All pupils and staff signed a 'Safety Pledge' which is displayed in the school's entrances. They were given copies of the purpose designed clothing, posters and DVDs of the films created. Activities within the programme included:

- Creating mini videos about an incident and its consequences
- Learning about blind spots and eye contact
- Understanding braking distances
- Designing fashionable high vis items
- Designing posters
- A safety quiz.

BENEFITS

- Increased awareness of road safety and changes in behaviour
- Enhanced relationships with local schools and community
- Involving staff in community activities
- Has created a flexible and easily transferrable programme on road safety.

33

Driving essentials

HIGHLY COMMENDED

CEMEX UK > National

DESCRIPTION

Building on the established 'Safety Essentials' used in CEMEX for a number of years, it was felt that a similar set of key behaviours should be developed that applied to drivers of all vehicles, whether large goods vehicles (LGV), company cars, vans or even personal vehicles.

By establishing a set of key behaviours that should be adhered to 'Driving Essentials' has been used to convey key messages, to support road related safety alerts and driver safety campaigns. The 'Driving Essentials' have been publicised in a number of ways with posters, pocket cards and stickers, reminding everyone of the key points to driving safely. Campaigns are run focussing on a specific essential and are publicised in the internal, weekly newsletter as well as circulated to all drivers and sites via posters or training sessions.

BENEFITS

- Improved awareness of driving safety
- Reduced driving related incidents
- Reduced insurance costs.

43

Vehicle cameras

HIGHLY COMMENDED

Brett Group > Bow, Croydon & Romford Readymix Plants

DESCRIPTION

Brett Concrete has embarked on a programme of fitting all new truck mixers and retro fitting some older vehicles with cameras to eliminate nearside blind spots. Each vehicle is fitted with two cameras at the rear and side of the vehicle cab. They produce an image of the area along the nearside of the vehicle which are displayed on a 7 inch monitor in the vehicle cab. Recorders are also being trialled which can store the images for up to three weeks.

Bespoke, audible, left turn warnings have also been fitted to vehicles with the message 'Brett vehicle is turning left'

BENEFITS

- Reduced risk of an RTA involving cyclists or pedestrians on near side
- Raised awareness of cyclists with both Brett company and owner drivers.

92

Improved lorry washing facilities

Midland Quarry Products > Cliff Hill Quarry

DESCRIPTION

MQP recognised that drivers required a safer method of washing their vehicle bodies rather than a ground based hose which encouraged potentially unsafe behaviour and created muddy and slippery conditions.

A small 'safer by design' working group comprising of franchise drivers, the transport manager and operations developed a solution which has been implemented. The result is a better drained area, improved hard standing and a wash out platform erected to direct water into the vehicle body.

BENEFITS

- Removes risk of falls from height due to driver climbing on vehicle body
- Eliminates slip and trip hazards from inadequately drained area and trailing hose
- Increased visibility to allow drivers to see and wash inside the lorry body in safety
- Eliminates possible entrapment by reducing the need to raise the vehicle body
- Cleaner working environment
- Engagement of drivers and others in developing a solution enhances safety culture.

133

Reducing exposure to dust

AWARD WINNER

ON VIDEO CLICK

Aggregate Industries > Concrete Products > Leighton Buzzard

DESCRIPTION

An in-house team involving the operators of the rumbler plant at Al's concrete products works and the safety adviser, wanted to reduce the respirable dust levels created by the plant. Tests had shown that the levels of respirable crystalline silica (RCS) were too high. Holcim had set an internal standard of 0.05 mg/m^3 WEL. The team reviewed all aspects of the rumbler operation identifying sources of dust and then implemented a number of low cost solutions which included:

- Filling holes in walls using expanding foam
- Creating wooden covers with rubber seals to isolate the rumbler from the working area
- Extending the dust extraction hood to make it more effective
- Fitting an automatic spray to the waste conveyor suppressing dust when blocks are ejected
- Undertaking a deep clean to remove accumulated dust
- Improving accessibility to the dust collection trays ensuring that they are regularly emptied
- Purchasing a vacuum cleaner to minimise dust generation during daily cleaning
- Introducing disposable all-in-one suits used only for the clean down process.

BENEFITS

- Respirable dust levels reduced to an average of 0.027 mg/m^3
- No requirement to wear respiratory protection during production
- The solutions implemented were low cost and effective.

135

Automation of wet cast production process

RUNNER UP

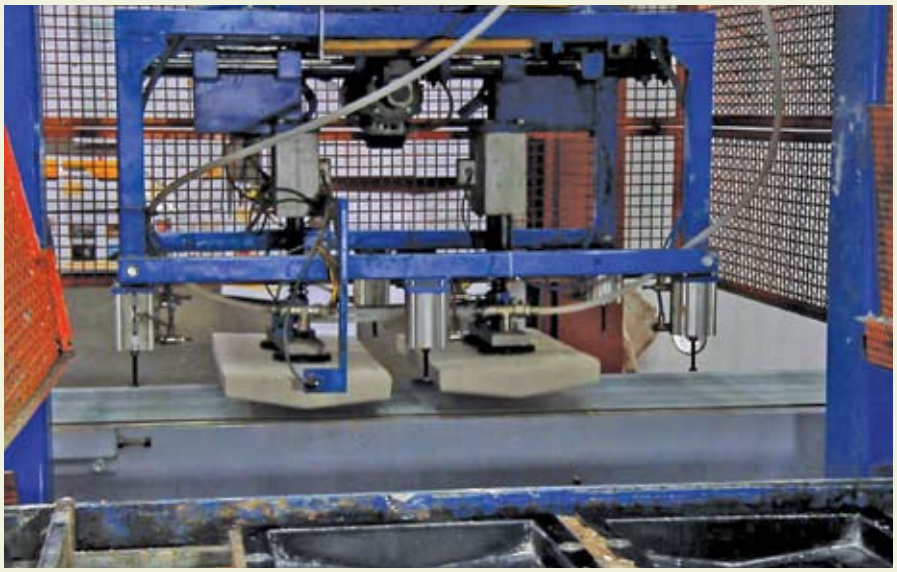
ON VIDEO CLICK

Marshalls Plc > Carluke

DESCRIPTION

Marshalls were concerned about the high level of manual handling, exposure to vibration and dust for operators working on their wet cast production.

The operations were reviewed and an automated batching process was introduced together with an automated production line using mainly second hand equipment.



BENEFITS

- Reduced levels of dust
- 90% reduction in manual handling
- Reduced exposure to vibration and noise
- 50% improvement in production capacity
- Improved consistency and reliability of product.

72

Implementation of RPE programme to prevent exposure to airborne silica dust

HIGHLY COMMENDED

Marshalls Plc > Natural Stone Division

DESCRIPTION

Marshalls' Natural Stone Division processes Yorkshire sandstone by cutting quarried stone into finished products. Large sandstone blocks are cut to size and finished within the saw shed. Water suppression is the primary exposure control strategy for airborne silica in the shed. Monitoring showed respirable crystalline silica (RCS) exposure concentrations in the saw shed were too high.

A team involving managers, works engineers, union representatives and Marshalls' safety team reviewed the operations and the following actions implemented:

- Engineering improvements to reduce airborne RCS
- All employees given information and training on the use and wearing of RPE
- All employees given information and training on the hazards associated with RCS
- RPE provided for all employees who are exposed to RCS levels above the WEL of 0.1mg/m^3
- Employees offered a choice of RPE, powered full face air respirators and half face masks
- Employees wearing half face masks given face-fit tests
- Equipment subject to a monthly maintenance schedule with appropriate reporting
- Independent dust assessments carried out at a minimum interval of two years
- All recommendations from independent consultant will be actioned
- Mandatory wearing of RPE where the WEL for RCS is exceeded
- All employees attending annual health surveillance as per the group policy.

BENEFITS

- Reduced employees exposure to hazard from RCS
- Employees understand risks and trained to use appropriate protection
- Company is meeting its statutory requirements
- Systems in place to monitor and further reduce RCS levels
- Team approach to finding a solution.

136

Reducing risks of head injury

HIGHLY COMMENDED

Marshalls Plc > Maltby Works

DESCRIPTION

Analysis of safety statistics at Maltby Works over a three year period revealed that there had been 19 accidents involving injuries to the head either through contact with a fixed item or a falling/moving object. Further analysis revealed that 14 of these accidents had occurred when operatives were working behind guarded areas, primarily when undertaking essential maintenance work. The common cause of injury was hitting one's head on fixed equipment when moving from a crouched to a standing position.

Further analysis confirmed that the activities being undertaken behind the guarded areas were essential. Appropriate steps had already been taken to minimise the need to work in these areas and to restrict access to them.

Marshalls' solution was to introduce a new policy making it a mandatory requirement for all employees to wear bump caps when working behind a guarded area.

BENEFITS

- No incidents of head injuries since June 2011
- Reduced level of risk for operatives working behind guarded area
- Bump caps increasingly worn by employees in other parts of the works
- Low cost but effective solution to eliminate high risk factor at the works.

166

Developing an engaged and 'well-being culture'

Midland Quarry Products > Company wide

DESCRIPTION

MQP wanted to do more to improve the well-being of employees in the company. Through engaging in discussions about 'well-being' using employee forums and a 'bright ideas' scheme, it wanted to find additional ways to support employees. The overall objectives were to change attitudes and to create a good health and well-being culture both during and after work with employees being asked for their views and suggestions.

The outcome of this process was the provision of the following additional services to staff:

- Flu jabs
- Financial advice and support
- Support to stop smoking
- Subsidised gym membership
- Employee assistance helpline
- 'Fit club'
- Blood sugars and cholesterol checks
- Wellness (well man/well woman) discussion with nurse
- Raising awareness of occupational health risks such as silicosis, wbv/hav and noise
- Purchasing a defibrillator for our main super quarry.

BENEFITS

- Improvements in general and mental health of staff
- Reductions in sick leave
- Reduced stress levels
- A happier workforce
- Increased willingness to report health issues
- Staff more engaged in making suggestions for an improved work environment.

134

Safe handling advice for kerbs and pavers

Brett Landscaping > Barrow-on-Sour

DESCRIPTION

Brett Landscaping reviewed the tools available to its customers for the handling of kerbs and pavers. Historically, Brett had supplied an in-house designed lifting device to customers but this was no longer suitable for all its product range.

Working with a leading materials handling manufacturer, Brett produced a guide book for installers. The guide emphasised the benefits and reduced risks from using the correct handling procedures. It also identified which lifting device would be best for safely and efficiently handling each item in Brett's product range. In addition, the guide also explained Brett's in-house design and cutting service where blocks are cut at the production site in a controlled environment minimising the risks from dust, vibration, manual handling and other potential hazards.

BENEFITS

- Reduced risk of customers incurring manual injuries when handling Brett's products
- Customers' awareness of potential hazards increased
- Positive feedback from customers
- Increased use of in-house service.

visit www.safequarry.com for more details or email: info@safequarry.com

124

C.A.T.S. – Changing Awareness Towards Safety

AWARD WINNER

ON VIDEO CLICK

Tarmac > Buxton Lime and Cement

DESCRIPTION

At Tarmac's Buxton Lime and Cement, a team of workforce colleagues consisting of both employees and regular contractors developed their own 'Behavioural Observation' process. From this the C.A.T.S. (Changing Awareness Towards Safety) was born. This was owned, led and managed at a 'shop floor' level, with no management or supervisor involvement other than facilitation of the process. It involves the entire workforce and is completely anonymous. The process is built on trust and engagement!

The C.A.T.S. steering committee analysed all accidents from the previous four years and identified 'at risk' behaviours that had contributed to them. The analysis helped the team develop their own list of 'critical behaviours' - what they look for when carrying out an observation.

The observers watch their colleagues performing a routine task and look for both safe and at-risk behaviours. The observers provide feedback on what they have seen, which involves a short two way discussion. The observer captures and records anonymously the feedback from the person observed. The entire process is totally transparent and no names are recorded.

Data collected from the observations is analysed, trended and reported back to the C.A.T.S. steering committee. The committee make recommendations to the management teams on how aspects of the operation that encourage risky behaviour could be changed or improved.

BENEFITS

- Improved safety culture and safer working environment
- Ownership by the group – safety is demonstrably the responsibility of everyone
- Engagement and willingness to challenge unsafe behaviour at all levels
- Accurate and real data to demonstrate what needs to be done
- Enhanced credibility of workmate to workmate interventions on safety issues
- Anonymous process without blame encourages feedback on issues.

visit www.safequarry.com for more details or email: info@safequarry.com

103

Shutdown – targeting zero harm

RUNNER UP

ON VIDEO CLICK

Lafarge Cement UK > Hope Works

DESCRIPTION

To complete a perfect shutdown, every team member is empowered to take responsibility to ensure everyone works together and is able to go home safely. The management team responsible for the shutdown developed a system using different methods of communication to ensure that everyone was involved. Their objectives were to ensure:

Everybody had a voice; understood their role and responsibility; acted to continually improve, and had a clear vision of the journey to succeed in the common goal

Planning was the key to success. Focused preparation involving all teams prior to the shutdown included identifying external tasks to be completed outside of the shutdown. Every aspect of the shutdown had been considered to eliminate risk and ensure smooth and efficient working by all.

The kiln shutdown safety culture entailed six elements:

- Pre-shutdown meetings with all contractor and Lafarge supervisors
- Using Visual Felt Leadership everyday - keeping a 'tight ship', resolving hazards quickly and raising HSE standards throughout the site
- Inviting all supervisors to a daily meeting – daily progress update, feedback and teamworking to support others with significant issues and resolve them quickly.
- A weekly update distributed to all those working as part of the shutdown team.
- Celebrating and rewarding improvement, achievement and good ideas
- A 'post mortem' meeting with all key members and providing feedback letters to help ensure continuous improvement for subsequent shutdowns.

BENEFITS

- Shutdown completed with zero harm, on time, on budget
- Everyone working as one team, including contractors
- Empowering and involving people to take more responsibility for their safety and the safety of others
- A calm was created in the team with great team spirit
- Risks eliminated at the earliest stage possible.

17

Driving a positive safety culture

HIGHLY COMMENDED

Lagan Cement Ltd > Lagan Cement Works

DESCRIPTION

Lagan Cement Works wanted to improve further its worker involvement in health and safety. An initiative was introduced to move the culture forward and make it more people focused. This was driven by a new works manager who wanted to change people's 'belief' about health and safety, putting emphasis on words like passion, innovation, trust and teamwork. He also believed that enjoyment was an important element in driving a change in 'values'.

A new system was introduced - '5 Star Safety'. It placed particular emphasis on the importance of employees reporting incidents and being engaged in resolving health and safety issues. The workforce was split into teams of both office and site based employees with each team given monthly safety targets based on:

- No LTI's in the team
- Reporting five safety incidents/concerns/first aids
- Submitting five safety suggestions
- Completing a safety audit of their area
- No breaches in H&S in the team.

Points were allocated for each target and if the team achieved 90 or more points in the month they were deemed a '5 Star' team. They were rewarded with 40 to put into a fund for a team outing and 40 was put into a fund for a charity of the team's choosing.

BENEFITS

- An engaged and motivated work force
- Safety reports up from 24 to 60 per month by end of 2011
- LTIs reduced to 0
- Plant experienced longest ever injury-free period
- Open, blame-free with employees happy to report incidents
- Many improvements to plant safety based on analysis of reports and employee suggestions
- Teams have enjoyed outings to build motivation
- Local charities have received donations of 8,000 Euros.

56

Safety stand-down

HIGHLY COMMENDED

Tarmac Ltd > West Region

DESCRIPTION

Following a review of reported incidents and near-hits at a number of sites, the local management, with involvement from their local SHE Adviser, decided to organise an event to help re-invigorate the safety culture at the sites involved. It was decided to shut entire sites during the operational day and hold a safety stand-down. The safety stand-down was to focus on the issues that had been highlighted by the incidents, near hits, Tarmac Golden Rules breaches identified and to consider any specific issues raised at each individual site during the safety stand-down.

The four safety stand-downs were held at a combined concrete and asphalt plant, two quarries and a recycling plant. Topics were tailored to the specific sites and included hazard identification and risk assessment, energy and machinery isolation and contractor management.

All site employees, contractors and some member of support staff attended the stand-down. Each stand-down involved presentations by the local supervision covering site specific subjects. Sessions were designed to be as open as possible with ample opportunity for questions and answers. An action plan was drawn up for specific actions ensuring visibility and accountability.

BENEFITS

- Visible Felt Leadership (VFL) demonstrated by stopping plants for stand-downs
- Greater understanding by the workforce of site-specific issues, what causes incidents and how to help avoid repeats
- Presenters gained better understanding of the workforce's concerns regarding SHE management and what needs to be done to improve performance.
- Contractors and support staff given the opportunity to get more involved with SHE standards on site.

101

Road to Zero Harm - employee safety engagement

HIGHLY COMMENDED

Lafarge Cement UK Ltd

DESCRIPTION

An increase in safety related incidents in the second half of 2011, prompted Lafarge Cement to refocus and renew the safety commitment of all employees and contractors. The 'Road to Zero Harm' was launched as the new company-wide safety engagement programme, aimed at addressing two key safety areas: employee engagement and leadership. Activities included:

1. Action for Safety Days – Employee engagement:

- Devised to mobilise employees at each operational site to identify and eliminate potential safety concerns during normal production conditions
- Emphasized importance of being risk aware and risk averse during routine tasks
- Promoting active use of STOP assessments to identify hazards and risks
- Enable cross-functional teams to work together to close out known hazards in the workplace

2. Leading from the Front – Front-line supervisor safety engagement – Leadership:

- Safety leadership workshops held with supervisors to:
- Identify H&S accountabilities required by front-line supervisors
- Identify safety behaviours needed in a zero harm workplace
- Recognise, understand, master the foundations of safety
- Plan to map out the journey to zero harm at their work sites
- Commitments to communicate safety plan involving teams
- Agree supervisor daily activities to influence zero harm culture

Output of these session generated site action plans developed and owned by the front-line supervisors at the company's operations.

3. Visible Felt Leadership – Leadership:

- New training programme in VFL developed for directors and senior managers
- 'Road to Zero Harm' brand created
- Promoted through internal communication channels
- Presented at conference attended by over 2,000 employees.

BENEFITS

- 'Road to Zero Harm' has mobilised our employees and increased risk and hazard awareness in the workplace
- Hundreds of potential safety hazards have been eliminated from our operations during the Action for Safety Days when over 600 employees were engaged in safety targeted events
- 150 front-line supervisors have been involved in developing safety action plans for their sites
- A field-based assessment tool and mentoring programme has been developed to benchmark and share
- 170 managers and supervisors have been through the new VFL training (300 target)
- 90 day LTI-free run achieved – the first since June 2011
- Strong employee recognition of the Road to Zero Harm initiative.

102

Lost Time Injury - leadership, focus, teamwork

Lafarge Cement UK > Cookstown Works

DESCRIPTION

Lafarge Cement UK's Cookstown Works achieved a significant safety milestone earlier in the year when it reached a decade without a 'Lost-Time Injury' (LTI), the only one of Lafarge's 170 global production sites to have achieved this. Such an achievement was accomplished through a combination of leadership, focus and teamwork.

Leadership

The Works Manager, William McGucken, played a crucial role by setting the original goal of zero harm for all employees, contractors, family and friends. He then analysed what would be needed to achieve it. He identified the areas he could influence and, of those areas, which ones needed focus to improve, and the methods necessary to facilitate those improvements.

He started out by refreshing people's minds of the most up-to-date health & safety standards and best practices. He also set about raising personal levels of health & safety and housekeeping, setting a standard which people could readily see. He was a visible leader of safety and safe practices on-site.

Focus

The next step was to focus on specific areas:

1. Communication: Clearly explaining the objective and its importance to everyone connected with the plant, emphasising the potential consequences of failure and maintaining open lines of communication over the ten years.

2. Support: Creating a culture where all people on-site felt they could give and seek support. Support included training, providing special equipment and PPE, funding safety improvements

3. Working Together: Enabling everyone to work together in harmony, facing the day-to-day challenges head-on.

Teamwork

With strong leadership in place and real focus on the subject, it was in the hands of the whole team to make the difference and this, they embraced. From changing attitudes to incident investigations; developing safer procedures and systems; ensuring everyone had access to and used the right tools for the jobs and the provision of training and guidance. Everyone gave their full focus and commitment.

Over the years a wide range of improvements were made to various parts of the plant to minimise risk.

A key aspect which helped to pull the team together even more and encourage them was the recognition they received from each other, the Works Manager and the wider business.

BENEFITS

- 10 years LTI-free
- Excellent team-working with minimal evidence of demarcation lines
- Strong safety culture throughout the Works
- Robust, loyal and committed team
- Driven team focussed on succeeding in a tough market
- High levels of morale
- Quoted as Lafarge's case study benchmark for site safety.

114

Improving employee and contractor engagement

Midland Quarry Products Ltd > Company wide

DESCRIPTION

Midland Quarry Product's has introduced two schemes to help facilitate communications and worker involvement.

1. 'Bright Ideas'

This scheme encourages employees to use easily completed forms to put forward an idea that would help improve MQP's performance in any of six key areas such as health and safety, energy and cost savings.

'Bright idea' suggestions are reviewed by a small, independent team. Employees whose ideas meet the simple criteria, which have been set by MQP, are rewarded with a prize of circa £10 to £50. The review team instigate the implementation of successful 'bright ideas' without interference from executive directors or senior managers. Further financial rewards may be made following full implementation of the idea. The team provides feedback to employees on all ideas submitted, the top ideas are featured in MQP's monthly employee engagement flyer.

2. Pocket size 'near hit' report book

Delivery drivers had raised concerns that near hits on both customer and MQP owned sites were being under reported. It was suggested that a handy, pocket size, 'near hit' report book was introduced. This report book has helped identify to both site and customer's management where problems were occurring, and to provide feedback to the transport/SHE manager for them to follow up.

BENEFITS

- Greater team member and contractor engagement
- Involvement of team members in identifying areas for improvement
- Demonstrated MQP's commitment to implement employee's ideas
- Gives credit and praise to individuals (as well as a small reward)
- Improvements to areas previously missed or not considered
- Improved driver engagement
- Improved identification of driver on-site concerns
- Improvements to regular customers' site safety culture
- Improved opportunity to engage and educate customers through visits
- Improved sales team awareness of customer site issues.

123

Safety alert videos

CEMEX UK > National

DESCRIPTION

CEMEX are always looking for new ways to communicate key safety learning points.

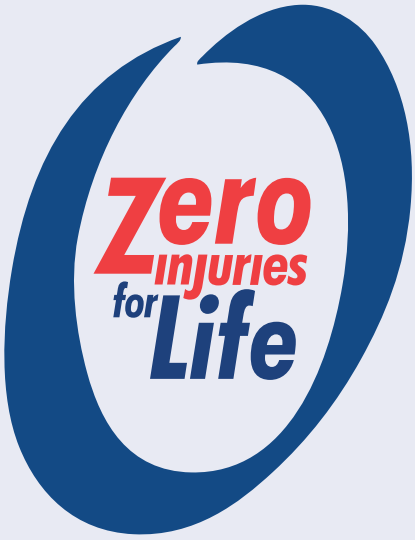
Recently, an incident occurred at a site that was captured by CCTV. The film clip was examined by the investigation team. They felt that a combination of this film and some text would create a powerful resource to reinforce safety messages with employees.

A short video was developed and circulated in the same way as a conventional safety alert. The difference being that, in this instance, people could actually watch what happened and then discuss the key learning points.

To date CEMEX has produced three Video Safety alerts drawing on the use of CCTV or similar film coverage. It is also in the process of producing a video safety alert using a filmed reconstruction of an incident which will be an equally powerful tool.

BENEFITS

- Videos encourage discussion and have high impact
- Alternative and interesting way to present key safety messages.



INDEX

Page number followed by the entry number

THE DISAB GROUP: MAKING THE WORLD'S MOST POWERFUL INDUSTRIAL VACUUM MACHINES

The DISAB Group is the European market leader in high powered industrial vacuum machines. Based in Sweden, the company designs and manufactures, delivers and supports Europe's most comprehensive range of industrial vacuum machinery for high performance mobile, industrial and centralised vacuum systems. Safety has always been at the heart of everything we've done, from minimising or eradicating dust exposure by designing new equipment to training operatives how to use it safely and efficiently.

World class industrial vacuum machines

From diesel-powered truck- and rail wagon-mounted units like the DISAB Centurion LN200, RailVac RA7 and TrailerVac, to forklift-handled compact electrically powered units like the SkipVac, CompVac and BagVac, the DISAB reputation is unparallelled. Our industrial vacuum cleaning machines combine huge suction power with reliability and user-friendliness, making them the choice for every kind of industrial user. Which machine is right for your business all depends on two basic questions:

- What is the material you want to vacuum up and collect?
- What do you want to do with the material when you've collected it - off load it as waste, or recycle it back into your production process or storage?

SkipVac, CompVac or BagVac?

All provide fully enclosed collection of spilled or waste material, are easy to use and forklift portable, minimise manual handling risks, and can be powered using local 32amp sockets. From lighter material and dust, to heavier waste and debris up to 50mm, these industrial vacuum units can remove or recover over long distances.

The **SkipVAC** is the smallest of the DISAB industrial cleaning machines; waste material is collected safely into the compact 1m^3 integral skip which can easily be detached and tipped using a forklift. The **CompVAC** has a more powerful pump to cater for larger volumes of material or longer pulling distances. For fully enclosed collection and disposal into a one tonne bag, the **BagVac** is the ideal solution for recycling or recovering.

Lafarge Plasterboard and the SkipVac

*"Thanks to the **SkipVac** and the improvements made to the existing pipework system, we can all see the difference to the working environment, something which our operatives really appreciate. From the H&S perspective, it also minimises the manual handling issues…"*

Centralised vacuum systems

While any of our industrial vacuum machines will power a fixed or central vacuum system, centralised vacuum systems often use dedicated powerplants such as the DISAB **PacVac** with a range of electrical or diesel motors. DISAB also specialises in designing, supplying and installing complete centralised vacuum systems with all the appropriate fixed pipework and inlet valve equipment.

Wavin UK and the PacVac

*"The **PACVAC**'s very good, and is doing exactly what I had hoped it would, which is enabling us to achieve much safer working conditions. Being fully enclosed, there aren't the clouds of dust any more. So working down in the pits is much safer. They're a much happier bunch, and I'm pleased that both the first and now the second **PacVAC** will make such a big difference to the way we work."*

Vacloaders

At the top end of the range, the DISAB **Centurion vacloaders** are the most powerful truck-mounted vacuum machines in the world. They are widely used for major spillage or deep cleaning work where massive suction power and huge capacity are needed, especially if several tonnes of material needs to be removed, collected, transported and disposed of quickly.

YouTube www.youtube.com/disabgroup

CHECK OUT OUR WEBSITE:
WWW.DISAB.COM

PLEASE CALL:
+44 (0)1737 246 649

DISAB UK, ALMA HOUSE ALMA ROAD,
REIGATE, SURREY RH2 0AX

DISAB VACUUM TECHNOLOGY AB
Åkermans väg 24
SE- 241 23 ESLÖV
+46 (0) 413 55 43 00
+46 (0) 413 55 43 01
mobile@disab.com
www.disab.com

DISAB-TELLA AB
Cedersdalsvägen 1
186 40 VALLENTUNA
+46 8 514 505 70
+46 8 514 505 79
industrial@disab.com
www.disab.com

DISAB GmbH
Mühlenstr. 25
DE-58285 Gevelsberg
+49 2332/666 01-0
+49 2332/666 01-10
klaus.klein@disab.com
www.disab.com

make the link
to mineral products

HEALTH & SAFETY WORKING GROUPS

Cement

Lionel Burch	Lafarge Tarmac
Ian Dawson	Lafarge Tarmac
Paul Lacey	Hanson
Raymond Parrott	CEMEX
Andy Smith	Lafarge Tarmac
Matin Wallis Shimwell	CEMEX
Iain Walpole	Hanson

Lime

Kye Brown	Singleton Birch
David Brown	Steetley Dolomite
Lionel Burch	Lafarge Tarmac
Paul Geaney	Lhoist

Safer by Partnership (Contractor Safety)

Ian Baggelaar	Hanson
Sharron Brady	Lafarge Tarmac
Darren Broadhead	Aggregate Industries
Kye Brown	Singleton Birch
Peter Luxmore	CEMEX
Rosamund Seal	Aggregate Industries
Mark Underwood	Lafarge Tarmac

Transport & Hauliers

John Anderson	Hanson
Andrew Brodley	Lafarge Tarmac
Dominic Day	Day Group
Tony Fuller	Allen Newport
Trish Jagger	MPQC
Sean McGrae	Lafarge Tarmac
Paul Needle	Smiths of Bletchington
Alex Stanmore	Brett Group
Jeff Stobbart	Aggregate Industries
Ben Street	Midland Quarry Products
Rob Wilkinson	CEMEX

Plant & Processes

Darren Broadhead	Aggregate Industries
John Nicholls	Lafarge Tarmac
Andy Taylor	CEMEX

Contract Surfacing

Rob Allen	Cleehill
Steve Barker	CEMEX
Jon Medforth	Hanson
Geoff Shearn	John Wainwright & Co
Pat Sheehan	Colas
Ben Slack	Lafarge Tarmac
Darren Stokes	Tripod Crest
Neville Thomas	CRH Plant
Glyn Williams	Lafarge Tarmac
John Winson	Aggregate Industries

Bitumen

Matt Avery	Aggregate Industries
Jason Barker	CEMEX
Ian Burrows	Eurovia
Gary Dowell	Hanson
Mike Linley	Total; RBA
Arnold Marsden	Lafarge Tarmac

mpa
essential materials
sustainable solutions

Mineral Products Association
Gillingham House
38-44 Gillingham Street
London SW1V 1HU

Tel 020 7963 8000
Fax 020 7963 8001
info@mineralproducts.org
www.mineralproducts.org
www.safequarry.com

The Mineral Products Association is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries.

Written by Daybreak Communications Ltd, Newbury
Designed by Publicity Project, Newbury
Managing editor: Martin Isles, MPA

Printed on paper and board which is totally chlorine-free and produced from pulp from sustainable forests.