

Clean Site / Safe Site initiative

Klaus Hormann Group Health & Safety







General introduction

Clean site / Safe site actions – introduction



H&S leadership



"I am giving the highest priority to Health & Safety and I expect the same from everybody else. Only together will we achieve our goal of zero harm." *Dr. B. Scheifele, CEO HeidelbergCement*

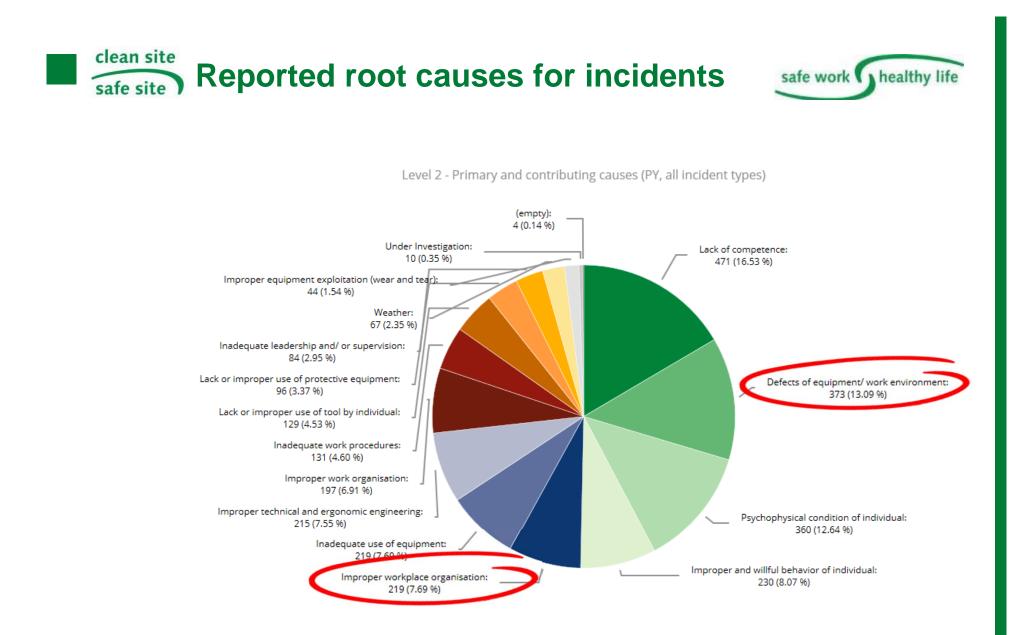
H&S is an important topic for HeidelbergCement

- Everybody is a role model in H&S
- Everybody is accountable for H&S
- Safety rules must be followed by everyone
- Breaches of safety rules cannot be tolerated



→ We all are responsible for Health & Safety!!!

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~ 20% linked to improper workplace organization or defect tools

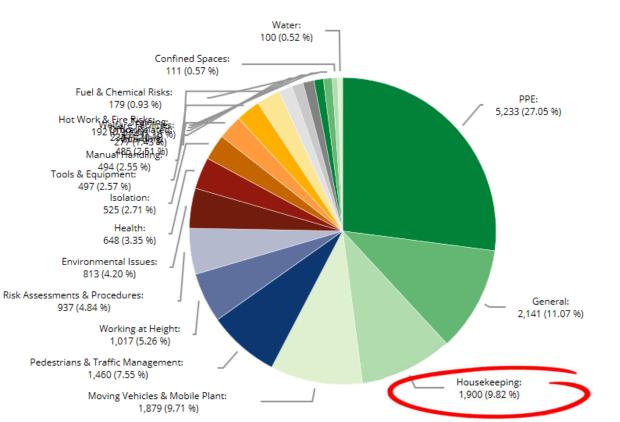
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Safety Conversations - Safe / Unsafe act report

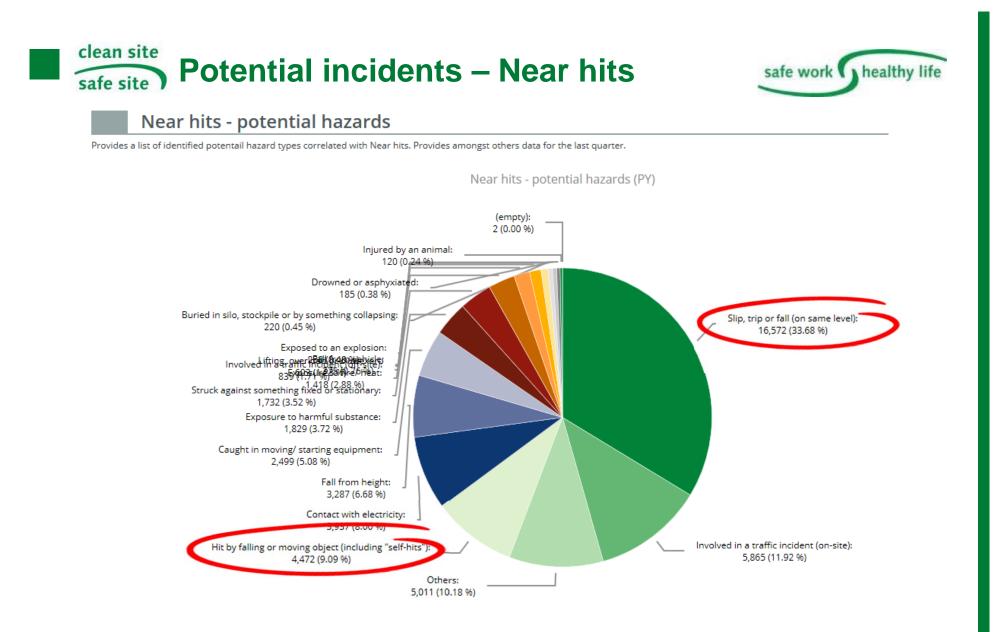
Reports showing details of safe / unsafe acts by location



Unsafe Acts by category (PY)

2017 every 10th observed unsafe act was related to housekeeping

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2017 every 3rd Near Hit was a slip, trip and fall incident

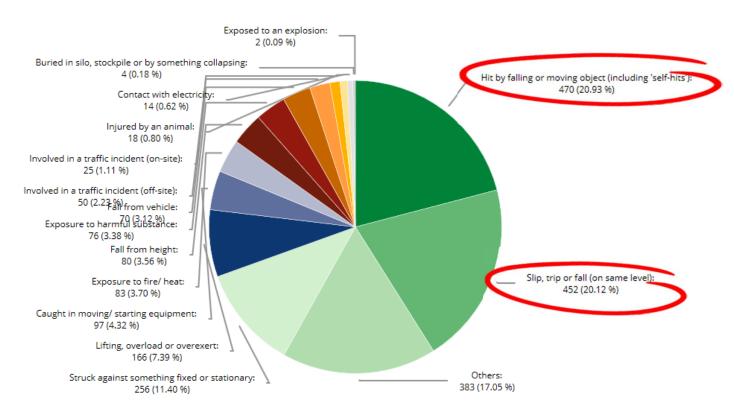
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Event types

Provides a series of charts showing the distribution of event types for various incident types and groups - for the current and previous year



Total incidents (PY)

2017 every 5th reported injury was caused by a slip, trip and fall incident

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safe site Recent fatalities – hit by object





Date/ Time	3/22/2017 / 16:30
Location	Pukrang/ Thailand/ CEMENT
Incident Type/ Sta- tus of Injured	Fatality / Contractor/ subcontractor
Incident Description	The accident happened in the cement mill line 1 building, 4th floor under a hoist crane. A 0.85 kW electric geared motor of the hoist crane fell down from a height of 9 meters, for an unknown reason yet, on the victim (employee of contractor company EME). He suffered serious injuries in the skull and brain. He was immediately brought to the hospital by the plant ambulance and passed away at 22:40 hours.
Event Type	Hit by falling or moving object (including 'self-hits')
Injury Type/ Body parts	Head/ skull injury/ Head
Root Causes	Type/ Category: Primary / No or inadequate execution of audits/ inspections/ con- trols
	Details: Delay in periodical inspection of overhead crane (uncertified) Type/ Category: Primary / No or inadequate correction of identified hazards Details: Insufficient hazard control
Corrective/ Preventive Actions	4150) Check all overhead cranes in the plant to see if any part of it, is under risk of falling, and ensure it is properly fixed and secured.
	4151) In case of a crane is uncertified (delayed its periodical inspection) or is under maintenance, it must be;
	- parked in a safe zone and prohibited to access
	- isolated its energy source (including crane's remote controller)
	- tagged with hazard identification
	4153) Inspect all sites and install wire ropes (eg. fall arrest) for equipment with
	risk of failure and free fall from a height.
	3931) Prepare safety alert and distribute it to all personnel
	3934) Safety talk about lesson learnt and management failure delivered in all
	plants

The accident happened in the cement mill under a overhead crane. <u>A motor of the hoist</u> <u>crane fell down</u> hitting a worker. He suffered serious injuries in the skull and brain and died on the spot.



---Motor falling direction

The inspection of the overhead crane was overdue

Contact: Phusit Saech

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No: THA-25015/ Sub-Inciden





- These numbers are based on Group wide records, all reported in 2017 within the AID system
- Improper workplace organization, linked with poor housekeeping, increases the risk for slip, trip and falls incidents, but as well for hit by objects
- Use of defect equipment, e.g. due to not performed inspections, increases the risk for various types of incidents













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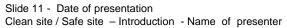














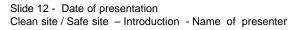




























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General introduction

Clean site / Safe site actions – introduction

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- Poor housekeeping and missing inspections increase the risk for incidents
- The Clean site/ Safe site initiative will help to prevent people from getting harmed
- Standardization helps to set up and maintain a well-ordered and efficient workplace
- A clean and organized workplace facilitates compliance with standards and requirements
- The initiative is aligned with existing Continuous Improvement program elements from HTC and CCM







- Before starting or refreshing the clean site/ safe site initiative, some preliminary tasks are necessary
 - Split your site up into geographical zones, e.g. quarry, mill, kiln, crusher, conveyors
 - Nominate person(s) being responsible to coordinate actions for each zone or type of equipment
 - Prioritize actions
 - Set timeline for zones/ equipment to start clean site/ safe site initiative with

Coordinate actions with your local CIP manager!!

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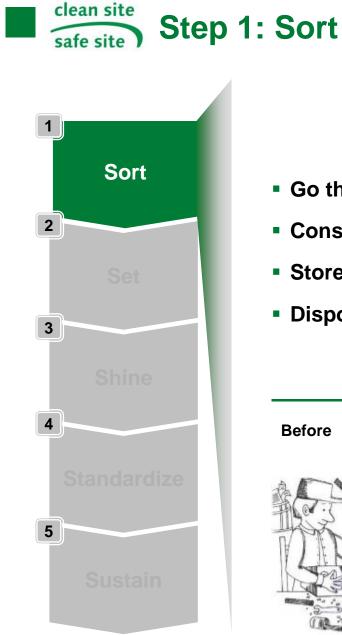
safe site Five steps to improve workplace safetyafe work healthy life

Step	Meaning	
1 Sort	 Sort the needed from the not-needed Discard, store, recycle what is not used 	Improve
2 Set	 Set a place for everything & put everything in its place Organize equipment so it can be reached easily 	
3 Shine	 Keep workplace and equipment clean for inspection & safety Maintain housekeeping Fix root causes of abnormalities such as leakage and spillage Maintain inspection routines for equipment 	Maintain
4 Standardize	 Standardize work practices for consistency Common methods and VISUAL standards help maintaining the previous steps 	
5 Sustain	 Sustain the gains and improve Inspire continuous commitment to standards (Management support) 	

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Source: Hirano, Hiroyuki; Rubin, Melanie (Ed.): 5s for operators: 5fivepillars of the visual workplace. New York, NY: Productivity Press, 2007



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safe work healthy life

Sort consists of four main activities

- Go through all items in each section
- Consider using red tags for 'questionable' items
- Store red tagged items in dedicated area
- Dispose items that have not been reclaimed after one week

After







Example: Red tag





Items, where you are not sure, whether they are still needed, should be stored in a designated "red tag" area for final decision. You can facilitate the identification by using a red tag to mark items which cannot be moved directly to the "red tag" area.



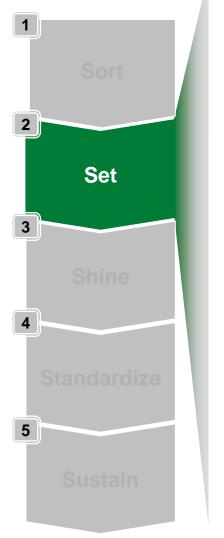
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Red tag area









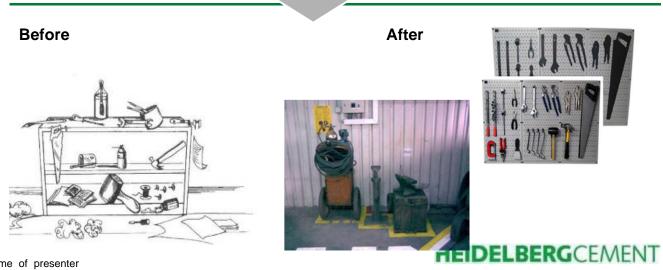
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Set consists of two main steps

Define dedicated location for every item

- Store items together and in right sequence if they are used together
- Store infrequently used items away from the point of use
- Make sure frequently used items are available, where needed

Mark dedicated locations for items

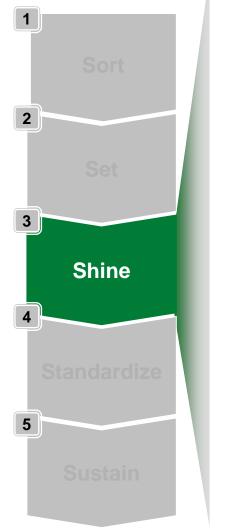




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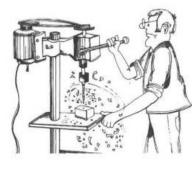
Shine consists of three main activities

- Fix root causes of abnormalities such as leakage and spillage
- Set cleaning and inspection schedule per zone to plan implementation and tracking of activities
 - List every cleaning/ inspection activity and indicate necessary frequency
 - Appoint staff in charge of cleaning/ inspection activities
 - Perform cleaning/ inspection activities according to defined frequency

After

- Conduct periodic implementation tracking
 - Shift leader to check performance level of implementation

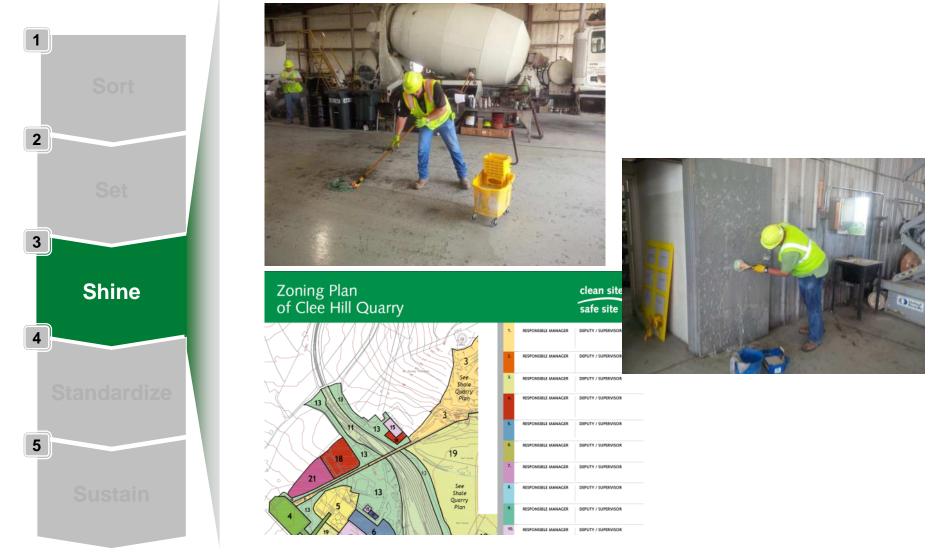
Before







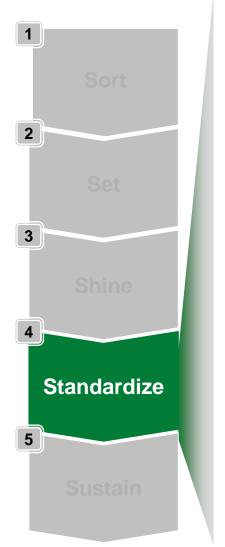




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safe site Step 4: Standardize work practices





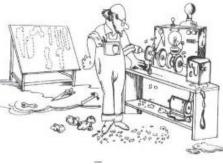
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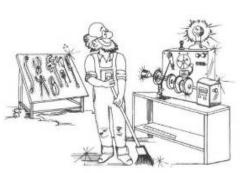
Standardize is based on developing an implementation checklist

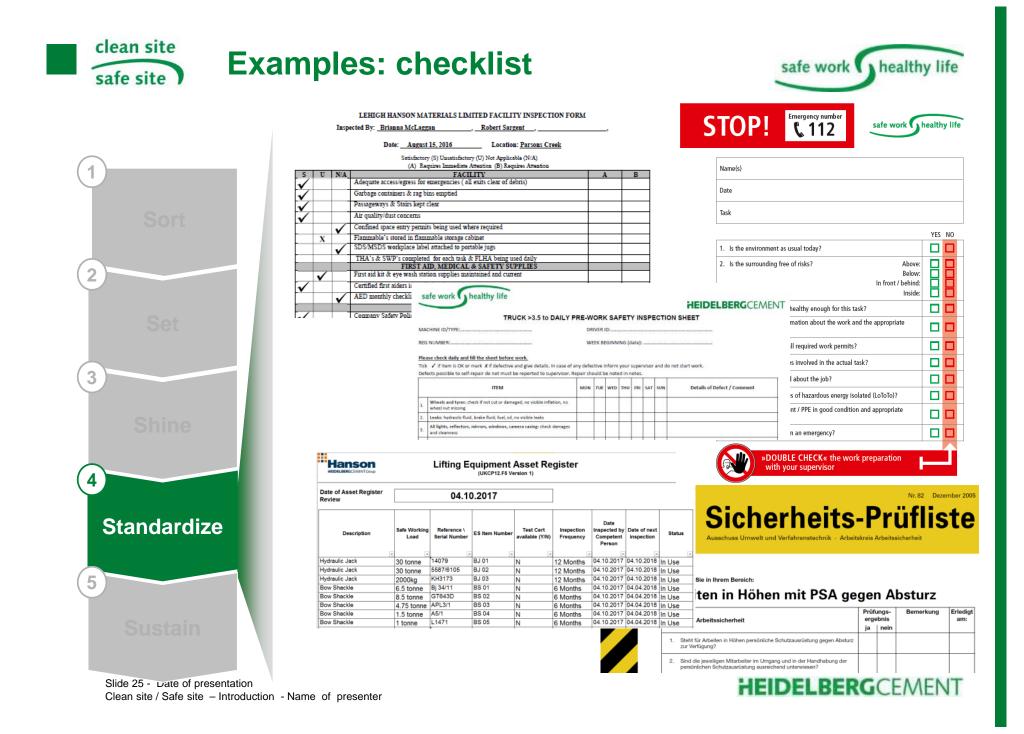
- Set up checklist for implementation and continuous monitoring
 - List all necessary activities
 - Indicate required implementation frequency of each activity
 - Check if activity was carried out and indicate improvement potential
 - Define processes how to proceed in case of non-compliances
 - Define actions In case of inspections specify criteria for "fit for use"

After

Before

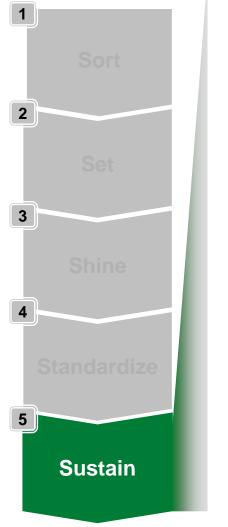












Ensure situation is maintained and inspections are done as required

Important benefits of regular checks

- Motivating staff by reviewing success cases and adapting lessons learned from other places
- Ensuring identification of weaknesses and development of countermeasures if standards are not met

Before



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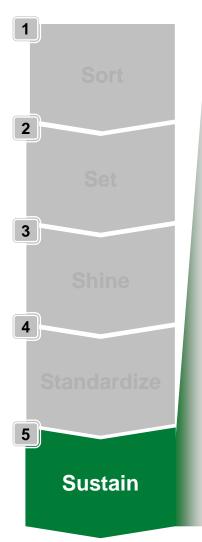




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Use notice boards as well to provide "before" and "after" pictures

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