BEST PRACTICE

LOCATION:	**Concrete products plant**	**ARTICLE YEAR**	**2016**
ACTIVITY:	**Production and Processing**	**COMPANY:**	**CEMEX UK Materials Ltd**
SUB ACTIVITY:	**Concrete products**	**COMPANY LOCATION:**	**CEMEX Floors**
BEST PRACTICE No:	**BP1951**	**COMPANY TEL:**	**0000**
COUNTRY OF ORIGIN:	**United Kingdom**		

TITLE

Concrete placing machine – to separate pedestrians from fork lift trucks

ARTICLE

DESCRIPTION

The batch plant that supplies the concrete for the wetcast T beam production at Wick is located outside at the end of the 100m production shed. The concrete is transported by a 1m3 skip that is carried by a fork lift truck, the discharge is controlled by the driver hydraulically. The concrete was placed in the centre of the mould and a team of 4 operatives used asphalt rakes to place and level it to the required standard.

This exposed the operatives to the risk of being hit by the forklift with circa 200 loads of concrete being delivered each day. Whilst a safe system of work was in place to minimise the risks, it was felt that a change in the method of placement should be developed to reduce the close interaction between the fork lift and the casting operatives.

Various options were considered including pumping the concrete, casting machines, using volumetric trucks and installing an automated bullet system. A placing machine option was selected as this could be integrated easily with existing production processes and also had the potential to reduce manual handling for the operatives placing the concrete.

The design of the new casting machine is based on the discharge chute of a readymix truck. The concept originated from discussions with site operatives and management and evolved as different approaches were trialled. The system is operated by one person who controls the speed the machine travels, the speed the concrete is discharged and the position of the chute, the latter two by means of a powered trigger handle attached to the chute.

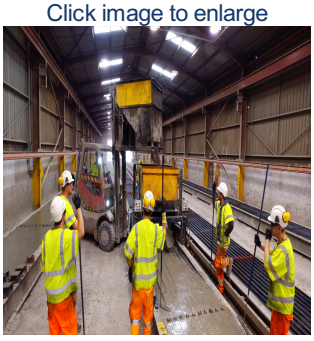
The forklift truck with the concrete discharge bucket is still used to fill the hopper. However it is no longer required to operate within close proximity to the casting operatives.

BENEFITS

- Significant reduction in risk of an operative being struck by a moving vehicle.
- Forklift movement reduced to circa 50
- Easier and less stressful task for fork lift driver
- Reduction in manual handling for the operatives placing the concrete
- Reduction in the uncontrolled splashing of concrete from mould
- Improvement in quality and consistency of concrete
- Reduced risk of separation of concrete.

ARTICLE IMAGES

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