

*The following details highlight some of the hazards and risks that might exist in concrete plants. They are by no means exhaustive and will vary depending on your own particular business. As a starting point, use the blank sheet provided in the pack and carry out your own simple risk assessment.*

## **Machinery**

**Most accidents on machinery occur as a result of people becoming trapped or entangled in the machine or falling from the machine during maintenance**

Ensure that all guarding is provided and maintained, in particular at 'vee-belt drives', head and tail pulleys, tensioning pulleys, snub rollers, feed boots, eccentric fly wheels etc.

Ensure that cement mixers are enclosed to prevent access to the mixing chamber and that a captive key interlock system is fitted to prevent access to the mixer while it is capable of operation.

Where mobile block making plant is used ensure that all the guards are in place. Only one captive key should be issued to operators at any time. In the few cases where both keys are required issue of the second key should only be allowed under strict supervision and in accordance with the manufacturers procedures.

Ensure suitable and sufficient emergency stop controls (buttons and trip wires) are provided and that they are tested regularly.

Provide safe access to all areas of plant which require maintenance. Walkways and platforms greater than 2m should have a guard rail to prevent persons falling.

Maintain access ways and check for corrosion of metal floors and rotting boards etc.

## **Vehicle Movements**

**Risks include vehicles overturning collision with other vehicles or people being reversed over or crushed**

Try to separate vehicles and people e.g. by using clearly marked traffic routes.

Exclude members of the public from dangerous areas.

Design traffic routes and plant positions to reduce the need for reversing and prevent vehicles emerging around blind corners.

Enforce a speed limit on site.

Fit vehicles with audible reversing alarms and ensure mirrors give good 'all-round' rear vision.

Provide employees with high visibility clothing to make them more obvious to drivers.

Ensure adequate stop blocks are provided at tipping points and prevent accumulation of material at the stop block.

## Vehicles

**Accidents occur as a result of failure of the braking and steering and as a result of persons falling when entering or leaving a vehicle**

Carry out regular inspections and tests of the braking and steering in accordance with manufacturers' instructions.

Ensure that steps, handles and hand holds provided to assist entering and leaving the vehicle are properly maintained.

Do not overload fork lift trucks etc.

Provide suitable information, instruction and training for drivers. (See separate sheet on Fork Lift Trucks)

## Manual Handling

**There is a risk of back injury and muscular strains from lifting and moving heavy or bulky items**

Assess all of the manual handling operations that your staff perform i.e. lifting, carrying, pulling and pushing.

Use mechanical devices where possible e.g. trolleys, pallet trucks, fork lift trucks, conveyors, cranes etc.

Train staff in safe lifting techniques.

Design workplace to minimise lifting.

## Slips, Trips and Falls

**Uneven, slippery or obstructed floor surfaces, trailing cables and poor general housekeeping may lead to accidents**

Keep passage ways, stairs and working areas as clear as is possible.

Dispose of waste materials immediately.

Clean up spillages immediately and post warning signs where slippery conditions may exist.

Fasten cables securely to the floor or re-route overhead if possible.

Provide guard rails to areas where someone could fall more than 2m.

Provide a grid in feed hoppers which prevents persons falling into the hopper and becoming engulfed.

## Hazardous Substances

**Certain chemicals such as wet concrete, dyes, release agents etc. may be harmful**

Obtain information on the risks from chemicals from the supplier or manufacturers hazard data sheet.

If possible substitute dangerous chemicals with less hazardous ones.

Follow the instructions on the manufacturers hazard data sheet regarding the use, storage, handling and disposal of the substance.

Where necessary provide employees with suitable personal protective equipment and ensure that it is maintained and replaced as necessary. (e.g. the provision of boots, gloves and overalls for people exposed to cement dust and wet concrete to prevent contact dermatitis)

## Noise

**Mixers, vibrating plates, conveyors and vehicles may give rise to potentially hazardous levels of noise which can cause incurable hearing damage**

If when people speaking normally have difficulty being heard clearly by someone who is about 2m away then you should arrange to have a noise assessment carried out.

Reduce noise by enclosing noisy plant where possible or providing a sound proof cabin for the operator.

Provide and ensure the wearing of suitable hearing protection