

Hazard identification tool – Concrete placement			
Job activity (Tasks)	What can harm you (Hazards)	What can happen (Risks)	Causes which need to be managed (Controlled)
General planning	Inadequate training, consultation, planning and improvisation.	Task specific injuries due to inexperience, inadequate consultation or failure to provide appropriate equipment.	<ul style="list-style-type: none"> • Insufficient skills (competency) to complete the required task. • Inadequate consultation with relevant employees. • Inadequate competent supervision. • Planning for required equipment not carried out. • Improvisation using inappropriate equipment.
Planning by Principal Contractor or Subcontractor (depending on contract conditions)	Insufficient lighting.	Walk into objects, slips, trips, fall & other injuries.	<ul style="list-style-type: none"> • Poor lighting provided to the work face, especially in basement and other enclosed areas. • Access ways not suitably defined or lighted.
	Poor access.	Slips, trips and falls; abrasions, strains and sprains; manual handling injuries.	<ul style="list-style-type: none"> • Access to work area cluttered – poor housekeeping. • Insufficient clear space around the perimeter of the work area. • Area around work area cluttered with stored materials and/or rubbish. • Inadequate access for concreters and their equipment. • Deck incomplete, steel fixers or other trades still working.

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	Working at height with inadequate edge protection.	Fall from the edge of the deck.	<ul style="list-style-type: none"> • Inadequate strength in perimeter handrail no midrail or fender board. • Gaps in perimeter protection, e.g. between screen or edge scaffold. • No catch scaffold provided.
Planning by Principal Contractor or Subcontractor (depending on contract conditions)	Penetrations not covered.	Fall through penetration.	<ul style="list-style-type: none"> • Penetration/s not meshed, covered, secured and marked.
	Formwork inadequate.	Fall injury due to formwork failure.	<ul style="list-style-type: none"> • Formwork failure – structurally inadequate. • Formwork not inspected.
General planning by Subcontractor	Exposure to ultra violet light, glare.	Skin cancer; sunburn, eye damage.	<ul style="list-style-type: none"> • Personal protective clothing – sunscreen 15+30, shirt, flap on hard hat not worn. • AS rated sunglasses not worn.
	Skin / eye contact with concrete.	Skin rash or allergy/ dermatitis; concrete splashed in eye.	<ul style="list-style-type: none"> • No water to work area to flush concrete from eye/s. • Eye protection not worn for tasks where splashing occurs, e.g. vibrating. • No PPE or incorrect PPE for the required task. • Barrier cream, or similar, not worn.
	Contact with substance classified as hazardous.	Short or long term health affect, e.g. overcome by vapours, rash, allergy, or disease.	<ul style="list-style-type: none"> • Risk assessment not undertaken. • Alternate (safer) substance not considered. • No MSDS provided. • No PPE or incorrect PPE for the required task. • Safety instructions ignored and/or training in safe use of the substance not provided.

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	Hot weather.	Dehydration and dizziness.	<ul style="list-style-type: none"> • Inadequate supply of cold drinking water provided to the work area. • Suitable work clothing not worn e.g. loose light coloured clothing. • No shaded areas or temporary cover erected to work under.
Pumping Concrete	Violent ejection of concrete from hose at first moment of delivery.	Struck by concrete which may cause body injuries; falls onto the deck or off the edge of the deck.	<ul style="list-style-type: none"> • No warning given prior to starting or re-commencing the pour. • Air in hose due to: a blockage; a change of supply; a poor mix –or delays in the pour. • Delivery hose damaged. • Poor control of T-bar at end of hose. • Inadequate strength in perimeter handrail no midrail or fender board. • No catch scaffold. • Blow back in the line.
	Delivery pipe / joint failure.	Struck by concrete or piece of pipe, which may cause body injuries; falls onto the deck or off the edge of the deck.	<ul style="list-style-type: none"> • Connecting pipes not adequately secured, e.g. no safety pins for lever couplings. • Joint or pipe section fails – brackets fixed too far apart causing excessive movement. • Exceed pipe operating pressure – wrong diameter pipe or pipe worn too thin. • Pipe damaged. • Inadequate support where a change in direction, or reducer occurs.

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Access	Walking on deck during pour.	Slip on wet ply or reinforcement and fall; trip or twist ankle or knee.	<ul style="list-style-type: none"> • Walking backwards during delivery. • Boot gets caught between steel reinforcement – different sized reinforcement occurs over the work area. • Steel reinforcement sags/gives way – not enough ties or chairs. • T-bar slips off the end of the hose.
	Sharp edges	Cuts from reinforcement bar ends or tie wire.	<ul style="list-style-type: none"> • No caps on the ends of reinforcement bar/s, e.g. column starter bars. • Tie wire not turned down into reinforcement cage. • Tie wire punctures boot.
	Penetrations or steps in the deck, e.g. deep beams.	Fall through penetration or into deep beam.	<ul style="list-style-type: none"> • Walking backwards during delivery. • Planks not provided to cover deep beams. • Penetrations not meshed, secured and marked.
Vibrator and operator	Noise from operating machinery.	Hearing damage from continuous noise over a long period	<ul style="list-style-type: none"> • No engineering solution for high noise level, e.g. quieter or muffled equipment. • No temporary sound absorption screen or barrier to protect other persons in the area, e.g. ply or polystyrene. • No PPE or incorrect PPE worn for the required task. • Enclosed area - causing echo.
	Wet concrete.	Splashes in eye.	<ul style="list-style-type: none"> • No eye protection worn by operator. • No water available in work area to flush concrete from eye/s.

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Vibrator and operator (cont)	Fuel used in vibrator.	Explosion and/or fire; burns; rashes or allergies from contact with bare skin.	<ul style="list-style-type: none"> • Poor fuel storage container. • Inadequate funnel for re-fuelling. • Smoking near fuel. • Re-fuelling when motor is still in operation. • No PPE or incorrect PPE for the required task.
	Fumes from fuelled equipment.	Illness; breathing difficulties – overcome by fumes.	<ul style="list-style-type: none"> • Inadequate ventilation provided. • Enclosed area. • Electric vibrator not used.
	Electric powered vibrator.	Electric shock or electrocution.	<ul style="list-style-type: none"> • Equipment faulty or damaged. • Earth Leakage Switch not installed on mains supply or portable generator. • Extension lead faulty or damaged. • Extension lead not secured above work area - lying in water.
	Walking on deck.	Slip on wet ply or reinforcement and fall; trip and twist ankle or knee.	<ul style="list-style-type: none"> • Walking backwards while operating vibrator. • Boot gets caught between steel reinforcement – different sized reinforcement occurs over the work area. • Steel reinforcement sags /gives way – not enough ties or chairs.

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	Manual handling.	Sprains, strains and fractures.	<ul style="list-style-type: none"> • Flicking the vibrator. • Weight of the vibrator and the drag affect when vibrating large deep vertical columns. • Lifting the vibrator over walls and up ladders to vibrate columns. • Materials hoist not in situ. • Two persons not used to carry the vibrator – insufficient manpower to do the job. • Limited job rotation opportunities
Shovelling	Manual handling.	Sprains, strains and fractures.	<ul style="list-style-type: none"> • Insufficient rest periods between jobs. • Repetitious twisting and shovelling, or raking. • Difficulty in workability of different strength concrete. • Limited job rotation opportunities. • Concrete too dry.
	Walking on the deck.	Slip on wet ply or reinforcement and fall; trip and twist ankle or knee.	<ul style="list-style-type: none"> • Walking backwards while shovelling. • Boot gets caught between steel reinforcement – different sized reinforcement occurs over the work area. • Getting in and out of the concrete. • Steel reinforcement sags/gives way – not enough ties or chairs

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Screeding	Manual handling.	Sprains, strains and fractures.	<ul style="list-style-type: none"> • Mechanised screed not used where practicable. • Insufficient rest periods between jobs. • Repetitious twisting and shovelling, or raking. • Difficulty in workability of different strength concrete. • Concrete too dry • Limited job rotation opportunities.
	Noise from operating mechanical screed.	Hearing damage from continuous noise over a long period.	<ul style="list-style-type: none"> • No engineering solution for high noise level, e.g. quieter or muffled equipment. • No temporary sound absorption screen or barrier to protect other persons in the area, e.g. ply or polystyrene. • No PPE for the required task. • Incorrect PPE for the required task. • Enclosed area causing echo.
	Working near the edge of deck.	Fall from the edge of the work area.	<ul style="list-style-type: none"> • Insufficient clear space around the perimeter of the work area. • Area around work area cluttered with stored materials and/or rubbish. • Inadequate strength in perimeter handrail no midrail or fender board. • Gaps in perimeter protection, e.g. between screen or edge scaffold. • No catch scaffold provided. • Fall over perimeter handrail backwards.

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Bull float	Manual handling.	Sprains, strains and fractures.	<ul style="list-style-type: none"> • Insufficient rest periods between jobs. • Repetitious arm and wrist movement. • No clear access around the perimeter of the work area or access cluttered with stored materials and/or rubbish. • Limited job rotation opportunities.
	Walking behind the float operator	Trip on float and fall onto the deck, or from the edge of the slab.	<ul style="list-style-type: none"> • Not watching the float when walking behind the operator. • Insufficient clear space around the perimeter of the work area. • Area around work area cluttered with stored materials and/or rubbish. • Inadequate strength in perimeter handrail no midrail or fender board. • Gaps in perimeter protection, e.g. between screen or edge scaffold. • No catch scaffold.
Bull float (cont)	Working near the edge of the deck	Fall from the edge of the work area.	<ul style="list-style-type: none"> • Fall backwards over perimeter handrail. • Inadequate strength in perimeter handrail no midrail or fender board. • Gaps in perimeter protection, e.g. between screen or edge scaffold. • Insufficient clear access around the perimeter of the work area. • Area around work area cluttered with stored materials and/or rubbish. • No catch scaffold provided.

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Hand trowelling	Working near the edge of the deck	Fall from the edge of the work area.	<ul style="list-style-type: none"> • Fall backwards over perimeter handrail. • Inadequate strength in perimeter handrail, no midrail or fender board. • Gaps in perimeter protection, e.g. between screen or edge scaffold. • No clear access around the perimeter of the work area • Area around work area cluttered with stored materials and/or rubbish. • No catch scaffold provided.
Helicopter float	Inexperience operator	Loss of control resulting in a strain, sprain or serious cut.	<ul style="list-style-type: none"> • Operator not trained. • Operator not watching. • Blade hits object protruding from the slab, e.g. reinforcement or stressing duct, stopping the blade. • Momentum throws operator.
Helicopter float (cont)	Rotating machine blade.	Blade strikes body part causing serious cut	<ul style="list-style-type: none"> • Poor machine maintenance. • Inadequate machine guard. • Guard hits object protruding from the slab, e.g. reinforcement or stressing duct, and falls off. • Pin securing the machine blade falls out causing the blade to fall off (pin loose or worn).
	Lifting the machine, manual handling.	Sprains, strains and fractures.	<ul style="list-style-type: none"> • Crane or other mechanical device not used where practicable. • Extension carry bar incorrect – too short. • Missing extension carry bar. • Slip when lifting. • Not enough people used to lift the machine.

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	Fuel used in the float.	Explosion and/or fire; burns; rashes or allergies from contact with bare skin.	<ul style="list-style-type: none"> • Non-approved storage container used for fuel. • Inadequate funnel for re-fuelling. • Smoking near fuel. • Re-fuelling when motor still in operation. • No PPE or incorrect PPE worn for the required task.
	Fumes from fuelled equipment.	Illness; breathing difficulties – overcome by fumes.	<ul style="list-style-type: none"> • Inadequate ventilation provided. • Enclosed area. • No scrubber, or catalytic converter fitted to exhaust.
Helicopter float (cont)	Noise from operating the float.	Hearing damage from continuous noise over a long period.	<ul style="list-style-type: none"> • No engineering solution for high noise level, e.g. quieter or muffled machine. • No temporary sound absorption screen or barrier to protect other persons in the area, e.g. ply or polystyrene. • No PPE or incorrect PPE for the required task. • Enclosed area causing echo.
Sealing concrete / curling	Sprayed sealing compound.	Skin rashes and/or allergies.	<ul style="list-style-type: none"> • No PPE or incorrect PPE for the required task. • Wind causes spray to drift to other areas and workers. • Inadequate ventilation.

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