MCK GROUP – HS-RA-001 FLAT DRUM ROLLER RISK ASSESSMENT

Worker-Accessible App Extract – Master Document: HS-RA-001 Risk Assessment Register V1.1

Related Documents: HS-PR-001 Risk Assessment Procedure; HS-PR-002 Daily Plant Inspection Procedure; HS-PR-003 Personal Risk Assessment (Take 5) Procedure; HS-PR-005 Incident Investigation & Reporting Procedure; OP-PR-003 Workshop Procedure; OP-PR-017 Unsafe Plant Isolation Procedure; Fatigue Management Procedure; Working Alone Procedure; Spill Management & Containment Procedure; Operating Mobile Plant SWMS; Loading & Unloading Plant & Equipment SWMS; Relevant task-specific SWMS; Plant Maintenance Register; Training & Competency Register; Relevant EMP and SSMP; MCK Group IMS Registers Master.

Risk ID	Risk Event / Activity	Hazard	Causes	Potential Impacts	Current Controls	Initial Risk	Residual Risk
FR-001	Pre-start inspection	Undetected mechanical or safety defect	Inspection not completed, defect overlooked or not reported	Plant failure, collision, rollover, injury	Daily Plant Inspection; defect reporting; maintenance system; operator checks before use	15	4
FR-002	Operator competency	Untrained or unauthorised operation	Inadequate competency verification or unfamiliarity with roller	Serious injury, rollover, plant damage, poor compaction outcome	Competency verification; training records; supervision; manufacturer instructions; site induction	15	4
FR-003	Mounting and dismounting roller	Slip or fall from plant	Mud, damaged steps, poor three-point contact	Sprains, fractures, lost time injury	Three points of contact; clean access steps; suitable footwear; no jumping from plant	9	4
FR-004	Starting and moving roller	Collision with people or plant	Blind spots, poor communication, people in operating area	Crushing, collision, serious injury or fatality	Exclusion zones; competent operator; horn; mirrors/cameras where fitted; radios; pre-start communication	15	4
FR-005	Reversing	Striking person, vehicle or object	Restricted rear visibility, alarms not heard, congestion	Serious injury, fatality, property damage	Reversing alarm; mirrors/cameras; exclusion zones; spotter where required; low-speed reversing	15	4
FR-006	Compacting near edges or drop-offs	Roller rollover / edge collapse	Soft shoulder, excessive proximity to edge, unstable ground	Fatality, serious injury, plant damage	Safe setback; ground assessment; stop blocks where appropriate; competent operator; spotter where required	15	4
FR-007	Operating on slopes	Roller rollover	Excessive gradient, side travel, loose or wet ground	Fatality, serious injury, major plant damage	ROPS; seatbelt; competent operator; slope assessment; manufacturer limits	15	4
FR-008	Operating on soft or unstable ground	Bogging or loss of stability	Saturated ground, weak fill, voids	Rollover, plant damage, recovery risk	Ground assessment; weather monitoring; approved travel paths; competent operator	15	4
FR-009	Compaction around other plant	Plant-to-plant collision	Multiple machines, blind spots, poor separation	Serious injury, fatality, plant damage	Work sequencing; exclusion zones; radio communication; designated travel paths; supervisor coordination	15	4
FR-010	Compaction near workers on foot	Person struck or crushed	Pedestrian enters operating area or blind spot	Fatality or serious injury	No-go zones; high-vis PPE; radio/visual communication; operator stops if person enters exclusion zone	15	4
FR-011	Vibration compaction	Ground vibration affecting nearby structures/services	Compaction too close to structures, services or sensitive areas	Property damage, service damage, complaints	Review work area; maintain safe distance; use vibration mode appropriate to conditions; monitor effects	12	4
FR-012	Working over buried services	Damage to underground services	Compaction over shallow or inadequately protected services	Service failure, flooding, electrical or gas incident	Before You Dig; service plans; marking; suitable compaction method; supervisor oversight	15	4
FR-013	Operating near overhead powerlines	Electrical contact or arcing	Roller or accessories entering unsafe clearance	Electrocution, fire, fatality	Identify services; exclusion distances; signage; route planning	10	4
FR-014	Poor visibility from dust	Collision / reduced situational awareness	Dry surface, traffic, wind	Collision, injury, poor compaction quality	Dust suppression where practicable; speed control; separation; enclosed cab where fitted	12	4
FR-015	Whole-body vibration exposure	Operator discomfort or musculoskeletal effects	Extended operation, rough surface, poor seat condition	Fatigue, back discomfort, reduced concentration	Maintained seat; appropriate tyre/drum condition; breaks and task rotation where practicable	9	4
FR-016	Noise exposure	Excessive noise	Extended operation, engine and vibration system noise	Hearing damage, fatigue	Enclosed cab where fitted; hearing protection where required; maintained plant	9	4
FR-017	Drum and steering articulation area	Crush / pinch point	Person enters articulation or drum area during movement or maintenance	Crushing, serious injury or fatality	Exclusion from articulation zone; plant stopped and isolated before inspection; warning decals	15	4
FR-018	Parking roller	Uncontrolled movement	Park brake not applied, unsuitable ground, roller left unsecured	Rollaway, collision, crushing	Park brake; suitable parking area; shutdown procedure; chocks where required	10	4
FR-019	Engine and exhaust area	Fire from hot surfaces or accumulated debris	Dry vegetation, oil leaks, debris around engine/exhaust	Plant fire, bushfire, injury, environmental damage	Daily inspection; clean engine bay; fire extinguisher where fitted; leak control	15	4
FR-020	Refuelling	Fuel spill or fire	Overfilling, hose failure, ignition source	Environmental contamination, burns, fire	Spill kits; controlled refuelling; trained personnel; no ignition sources; inspections	12	4
FR-021	Hydraulic system	High-pressure hydraulic leak or hose failure	Damaged hoses, fittings, poor maintenance	Fluid injection injury, fire, environmental spill	Daily inspection; preventative maintenance; isolation/depressurisation before repair; defect reporting	10	4
FR-022	Loading or unloading roller for transport	Plant rollover from ramps or trailer	Poor alignment, slippery ramps, inadequate trailer position	Fatality, serious injury, plant damage	Competent operator; level loading area; rated ramps; exclusion zone; spotter where required	15	4
FR-023	Transport restraint	Roller movement during transport	Insufficient or damaged chains/restraints	Road crash, plant damage, public injury	Rated restraints; approved tie-down points; pre-departure checks; restraint inspections	15	4
FR-024	Maintenance and repairs	Unexpected movement or stored energy	Inadequate isolation, hydraulic pressure, articulation movement	Crushing, serious injury, fluid injection	Unsafe Plant Isolation Procedure; competent maintenance personnel; isolate and secure plant; depressurise systems	15	4

FR-025	Remote or isolated operation	Delayed emergency response	Communication blackspots, remote forestry or park work	Serious injury escalation, delayed rescue	Working Alone Procedure; check-ins; radios/phones; emergency contacts; site location details; first aid resources	10	4
FR-026	Fatigue during prolonged operation	Reduced concentration and reaction time	Long shifts, repetitive passes, heat, travel	Collision, rollover, poor judgement	Fatigue Management Procedure; scheduled breaks; fit-for-work expectations; supervisor monitoring	15	4
FR-027	Compaction quality	Inadequate or excessive compaction	Incorrect number of passes, wrong vibration setting, unsuitable moisture	Rework, premature road failure, client dissatisfaction	Approved procedure/specification; competent operator; testing/inspection; layer and moisture controls	12	4
FR-028	Environmental disturbance	Dust, noise or vibration nuisance	Operation near sensitive receivers or outside approved controls	Complaints, environmental impact, client action	EMP/SSMP controls; work-hour limits where applicable; dust suppression; monitoring; approved work boundaries	12	4
FR-029	Prolonged plant operation	Psychosocial hazards	Fatigue, production pressure, remote work, poor communication, stressful events	Reduced concentration, poor decisions, increased incident risk	Fatigue management; realistic workloads; supervisor support; regular communication; breaks; fit for work	9	4
FR-030	Plant operation	Mechanical failure during operation	Brake, steering, transmission, track or component failure	Loss of control, collision, rollover, serious injury, plant damage	Preventative maintenance; daily inspections; defect reporting; competent operators	10	4
FR-031	Working in hot or adverse weather	Heat stress / environmental exposure	High temperatures, humidity, prolonged sun exposure, dehydration	Heat stress, fatigue, reduced concentration, illness	Drinking water; shaded breaks; suitable PPE; work/rest regime; weather monitoring	9	4
FR-032	Manual handling	Hazardous manual tasks	Handling chains, tools and equipment; awkward postures during inspections and maintenance	Musculoskeletal injuries, strains and sprains	Mechanical aids; minimise manual lifting; suitable work positioning; team handling where appropriate; Manual Handling Procedure	9	6

Controlled Document Notice: This document is a worker-accessible extract from the MCK Group HS-RA-001 Risk Assessment Register. The controlled master register contains the complete risk assessment, action tracking and review information. Refer to the current controlled version for full details.