# MCK GROUP – HS-RA-001 GRADER 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 |
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| GR-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 |
| GR-002 | Operator competency | Untrained or unauthorised operation | Inadequate competency verification or unfamiliarity with grader controls | Serious injury, collision, plant damage, poor-quality work | Competency verification; training records; supervision; manufacturer instructions; site induction | 15 | 4 |
| GR-003 | Mounting and dismounting grader | 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 |
| GR-004 | Starting and moving grader | Collision with people or plant | Blind spots, long machine length, poor communication | Crushing, collision, serious injury or fatality | Exclusion zones; competent operator; horn; mirrors/cameras where fitted; radios; pre-start communication | 15 | 4 |
| GR-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 |
| GR-006 | Operating on slopes | Grader rollover | Excessive gradient, side travel, unstable ground, articulated steering position | Fatality, serious injury, major plant damage | ROPS; seatbelt; competent operator; slope assessment; manufacturer limits; controlled steering/articulation | 15 | 4 |
| GR-007 | Operating near embankments or drop-offs | Edge collapse / rollover | Soft shoulders, hidden voids, excessive proximity to edge | Fatality, serious injury, plant loss | Safe setback; ground assessment; controlled travel path; spotter where required | 15 | 4 |
| GR-008 | Operating on soft or unstable ground | Bogging or loss of stability | Saturated ground, weak fill, buried voids | Rollover, plant damage, recovery risk | Ground assessment; weather monitoring; approved travel paths; competent operator | 15 | 4 |
| GR-009 | Blade operation | Striking people, plant or objects with blade | Poor visibility, incorrect blade position, tight work area | Serious injury, collision, equipment damage | Exclusion zones; competent operator; controlled blade positioning; communication; spotter where required | 15 | 4 |
| GR-010 | Working around articulation point | Crush / pinch point | Person enters articulation area during movement or maintenance | Crushing, serious injury or fatality | Exclusion from articulation zone; plant stopped and isolated before inspection; warning decals | 15 | 4 |
| GR-011 | Grading road formation | Interaction with other mobile plant | Multiple machines operating in same work area | Collision, serious injury, plant damage | Work sequencing; radio communication; separation distances; designated travel paths; supervisor coordination | 15 | 4 |
| GR-012 | Working near workers on foot | Person struck or crushed | Pedestrian enters grader 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 |
| GR-013 | Operating near traffic or public access | Vehicle/public interaction | Road works, shared access, poor separation | Collision, serious injury, public complaint | Traffic controls; barriers; signage; spotters; approved closures/TGS where required | 15 | 4 |
| GR-014 | Working near underground services | Damage to buried services | Blade or scarifier penetrates service zone | Electrocution, explosion, flooding, service outage | Before You Dig; service plans; marking; controlled grading/scarifying; supervisor oversight | 15 | 4 |
| GR-015 | Operating near overhead powerlines | Electrical contact or arcing | Machine or accessories entering unsafe clearance | Electrocution, fire, fatality | Identify services; exclusion distances; signage; route planning | 10 | 4 |
| GR-016 | Scarifier/ripper operation | Unexpected impact or component failure | Buried rock, concrete, roots or other obstruction | Plant damage, sudden machine movement, operator injury | Controlled speed; work area inspection; competent operator; exclusion zone | 12 | 4 |
| GR-017 | Grading loose material | Flying debris / material displacement | Blade contacts rocks or debris, excessive speed | Struck-by injury, vehicle damage, public hazard | Controlled speed; exclusion zone; inspect work area; maintain safe separation from public/traffic | 12 | 4 |
| GR-018 | Dust-generating grading | Dust exposure and reduced visibility | Dry road material, wind, repeated passes | Respiratory irritation, collision, environmental nuisance | Dust suppression where practicable; enclosed cab; PPE where required; speed control; weather awareness | 12 | 4 |
| GR-019 | Road crown and drainage formation | Poor drainage or unstable finished surface | Incorrect blade settings, insufficient fall, poor material control | Water ponding, erosion, road failure, rework | Approved procedures/specifications; competent operator; level/fall checks; supervisor inspection | 12 | 4 |
| GR-020 | Working in wet weather | Reduced traction / visibility | Rain, slippery surface, waterlogged ground | Loss of control, bogging, poor-quality work | Weather monitoring; reduced speed; ground assessment; stop-work criteria | 12 | 4 |
| GR-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 |
| GR-022 | 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 |
| GR-023 | 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 |
| GR-024 | Noise and vibration exposure | Operator exposure to noise and whole-body vibration | Extended operation, rough formation, poor seat condition | Hearing damage, fatigue, musculoskeletal discomfort | Enclosed cab where fitted; hearing protection where required; maintained seat; breaks where practicable | 9 | 4 |
| GR-025 | Loading or unloading grader 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 |

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| GR-026 | Transport restraint | Grader 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 |
| GR-027 | 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 |
| GR-028 | 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 |
| GR-029 | Fatigue during prolonged operation | Reduced concentration and reaction time | Long shifts, repetitive grading, heat, travel | Collision, rollover, poor judgement | Fatigue Management Procedure; scheduled breaks; fit-for-work expectations; supervisor monitoring | 15 | 4 |
| GR-030 | Environmental disturbance | Dust, erosion or work outside approved limits | Excessive grading, poor drainage, disturbed shoulders | Environmental harm, client/regulatory action, rework | EMP/SSMP controls; approved work boundaries; erosion controls; supervisor oversight | 12 | 4 |
| GR-031 | 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 |
| GR-032 | 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 |
| GR-033 | Working in hot or adverse weather | Heat stress / environmental exposure | High temperatures, humidity, prolonged sun exposure, dehydratio | Heat stress, fatigue, reduced concentration, illness | Drinking water; shaded breaks; suitable PPE; work/rest regime; weather monitoring | 9 | 4 |
| GR-034 | Manual handling | Hazardous manual tasks | Handling chains, tools, cutting edges and components; 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.***