

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

SWMS number: SWM-06-SW-1327	SWMS Name: Testing of Rolling Stock			SWMS Team: Michael Uhlig, Manager Rolling Stock Access Integrity Stephen White, Technical Specialist Rolling Stock Performance Standards Jakub Zawada, Principal Engineer Rolling Stock Ken Chubb, Technical Specialist RS Performance, Monitoring Stuart Kean, Technical Specialist Loco & Train Performance Standards Cynthia Lee, Safety Coordinator
Custodian (Position): Technical Specialist Rolling Stock Performance Standards	Assumptions: This SWMS covers Rolling Stock testing in RailCorp and external organisation, both on rail indoor and outdoor. It involves Static Tests, Brake Tests and/or Dynamic Tests.			
Approver (Position): Manager Rolling Stock Access Integrity	Plant/Equipment/Tools: <ul style="list-style-type: none">Box TrailerHand TrolleyTension WrenchWheel ChocksAluminium PackersJacking EquipmentPortable GeneratorPortable Load CellChart Recorder with battery TorchPower board fitted with earth leakage device	Records/Reporting: Rolling Stock Test sheets Rolling Stock RSP 013 Static Test Site Safety Evaluation	Permits/licences required: N/A	Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group) Michael Uhlig, Manager Rolling Stock Access Integrity Stephen White, Technical Specialist Rolling Stock Performance Standards
Applicable Standards, Codes of Practice and guidance: <ul style="list-style-type: none">OHS Regulation 2001National COP for manual handlingRail Safety ActNetwork Rules and Network ProceduresTOC ManualRSUsWorkCover Code of				PPE required: <ul style="list-style-type: none">Safety BootsHigh visibility vestsHard hat if in worksiteBump hatSafety eyewear as requiredSunscreenWide brim hats as required

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

<p>Practice Work in Hot & Cold Environments</p> <ul style="list-style-type: none">SMS-06-SWPR-0173 Plant and Equipment Lock Out Tag Out	<p>Inspection requirements Inspection prior to use on:</p> <ul style="list-style-type: none">Jacking equipmentPortable GeneratorPortable Load CellBox TrailerChart Recorder	<p>Service schedule: N/A</p>	<p>Training/Qualifications required: Rail Industry Safety Induction (RISI) WorkCover Construction Safety Induction Protection Officer</p>	<ul style="list-style-type: none">Hearing protection as requiredPuncture proof gloves
---	--	---	--	--

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
1	On arrival Team Leader assess risk on site with RSP013 Static Test Site Check Sheet and induct team members	Trip hazard from tracks and uneven surfaces	C+	<ul style="list-style-type: none"> Wear safety boots Ensure the worksite is clear of debris Position tools, equipment and materials in a safe place clear of walkways, refuges and vehicular access routes Identify slippery surfaces, wet locations, grease pots etc within the worksite Avoid carrying loads on steep embankments Avoid steep slope Share or minimise loads Walk slowly and purposefully through areas of high risk 	D	Team Leader Team members	EPR 013 Static Test Site Check Sheet
		Struck by train or vehicle	B+	<ul style="list-style-type: none"> Wear high visibility vest Use red flags as Network Rules & Procedure When outside RailCorp sites, use witches hats or barricades around work area 	D	Team Leader and all on site	RailCorp Network Rules and Procedures
		Electric shock from electrical leads in test area	B+	<ul style="list-style-type: none"> Isolate and remove electrical leads before work set up Leads to be tagged Power board fitted with earth leakage device Induct team members on electrical leads identified in Static Test Site Check Sheet 	D	Team Leader and all on site	EPR 013 Static Test Site Check Sheet
		Noise when in workshop environment	C+	<ul style="list-style-type: none"> Wear ear plugs or ear muffs 	D	Team Leader and all on site	SMS-06-SW-0531 Hearing Protection

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
1		Exposure to UV radiation	C+	<ul style="list-style-type: none"> • Wide brim hats • Wear Long sleeve shirts and long trousers • Apply Sunscreen every two hours as required 	D	Team Leader and all on site	SMS -06-SW-0537 Sunscreen SMS-06-GD-0323 PPE
		Exposure to heat / cold	C+	<ul style="list-style-type: none"> • Ensure personnel are trained in the signs and symptoms of heat stress such as dark yellow urine, fatigue, dehydration, cramps, nausea, rapid breathing • Wear long sleeve cotton shirt and long cotton trousers • Drink water at regular intervals • Schedule work outside the hottest part of the day • Utilise shade where possible • Take regular breaks and pace work activities 	D	Team Leader and all on site	WorkCover Code of Practice Work in Hot & Cold Environments SMS-06-GD-0323 PPE
2	Apply appropriate worksite protection	Trip hazard from tracks and uneven surfaces	C+	<ul style="list-style-type: none"> • Wear safety boots • Ensure the worksite is clear of debris • Position tools, equipment and materials in a safe place clear of walkways, refuges and vehicular access routes • Identify slippery surfaces, wet locations, grease pots etc within the worksite • Avoid carrying loads on steep embankments • Avoid steep slope • Share or minimise loads • Walk slowly and purposefully through areas of high risk 	D	Protection Officer	EPR 0013 Static Test Site Check Sheet

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
		Struck by train or vehicle	B+	<ul style="list-style-type: none"> Wear high visibility vest Use red flags as Network Rules & Procedure When outside RailCorp sites, use witches hats or barricades around work area 	D	Protection Officer	RailCorp Network Rules and Procedures
		Electric shock from electrical leads in test area	B+	<ul style="list-style-type: none"> Isolate and remove electrical leads before work set up Electrical leads to be tagged Power board fitted with earth leakage device Induct team members on electrical leads identified in Static Test Site Check Sheet 	D	Protection Officer	EPR 013 Static Test Site Check Sheet
		Noise when in workshop environment	C+	<ul style="list-style-type: none"> Wear ear plugs or ear muffs 	D	Protection Officer	SMS-06-SW-0531 Hearing Protection
		Exposure to UV radiation	C+	<ul style="list-style-type: none"> Wide brim hats Wear Long sleeve shirts and long trousers Apply Sunscreen every two hours as required 	D	Protection Officer	SMS -06-SW-0537 Sunscreen SMS-06-GD-0323 PPE
		Exposure to heat / cold	C+	<ul style="list-style-type: none"> Ensure personnel are trained in the signs and symptoms of heat stress such as dark yellow urine, fatigue, dehydration, cramps, nausea, rapid breathing Wear long sleeve cotton shirt and long cotton trousers Drink water at regular intervals Schedule work outside the hottest part of the day Utilise shade where possible Take regular breaks and pace work activities 	D	Protection Officer	WorkCover Code of Practice Work in Hot & Cold Environments SMS-06-GD-0323 PPE

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
		Miscommunication	C+	<ul style="list-style-type: none"> Ensure everyone understands the requirements by asking questions 	D	Protection Officer or Team Leader	Network Rules & Procedures
3	Static Testing / setting up equipment for dynamic testing a) Position and secure red flag on both sides of vehicle/s	Trip hazard from tracks and uneven ground	C+	<ul style="list-style-type: none"> Wear safety boots Ensure the worksite is clear of debris Position tools, equipment and materials in a safe place clear of walkways, refuges and vehicular access routes Identify slippery surfaces, wet locations, grease pots etc within the worksite Avoid carrying loads on steep embankments Avoid steep slope Share or minimise loads Walk slowly and purposefully through areas of high risk 	D	Team Leader and Team Member Protection Officer	RSP 013 Static Test Site Check Sheet
		Unplanned movement of vehicle	C+	<ul style="list-style-type: none"> Ensure handbrakes applied to secure train or vehicle movement Front and back wheels chocked with wedges 	D	RS&I staff	RSP 008 Static Twist Test for Rolling Stock
		Struck by train/vehicle	B+	<ul style="list-style-type: none"> Wear high visibility vest Use red flags as Network Rules & Procedure When outside RailCorp sites, use witches hats or barricades around work area 	D	Protection Officer Or Team Leader from external organisation	Network Rules & Procedures External System for Site Induction
		Exposure to UV radiation	C+	<ul style="list-style-type: none"> Wide brim hats Wear Long sleeve shirts and long trousers Apply Sunscreen every two hours as required 	D	Protection Officer or Team Leader from external organisation	SMS -06-SW-0537 Sunscreen SMS-06-GD-0323 PPE

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
		Exposure to heat / cold	C+	<ul style="list-style-type: none"> Ensure personnel are trained in the signs and symptoms of heat stress such as dark yellow urine, fatigue, dehydration, cramps, nausea, rapid breathing Wear long sleeve cotton shirt and long cotton trousers Drink water at regular intervals Schedule work outside the hottest part of the day Utilise shade where possible Take regular breaks and pace work activities 	D	Protection Officer or Team Leader from external organisation	WorkCover Code of Practice Work in Hot & Cold Environments SMS-06-GD-0323 PPE
3	b) Unloading/loading equipment	Manual handling/muscular strain	C+	<ul style="list-style-type: none"> Correct lifting technique with 2 persons Use box trailer or hand trolley to carry equipment 	D	Team Leader and all on site	SMS-06-GD-0001 Guide to Manual Handling
	c) Connecting equipment to electrical power supply	Electric shock from generator or power supply	C+	<ul style="list-style-type: none"> Check generator and leads for condition and electrical tags before use Generator fitted with earth leakage device Use of circuit protection devices 	D	RS&I staff	SMS-06-SW-0274 Electrical Equipment Selection Inspection and Testing
		Noise from portable generator if used	C+	<ul style="list-style-type: none"> Wear ear plugs or ear muff Place generator down wind and away from work area Screen generator from work area 	D	RS&I staff	SMS-06-SW-0531 Hearing Protection
		Head injury from underneath rolling stock	C+	<ul style="list-style-type: none"> Wear bump hat 	D	RS&I staff	SMS-06-GD-0323 PPE Guide
	d) Set up test equipment	Muscular strain handling generator	C+	<ul style="list-style-type: none"> Correct lifting technique with 2 persons Use hand trolley to carry equipment 	D	RS&I staff	SMS-06-GD-0001 Guide to Manual Handling
		Hand injury from chocking wheels	C+	<ul style="list-style-type: none"> Wear well fitted puncture proof gloves 	D	RS&I staff	SMS-06-SW-0530 Protective Gloves

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
3		Electric shock from electrical equipment	C+	<ul style="list-style-type: none"> Check generator and leads for condition and electrical tags before use Generator fitted with earth leakage device Use of circuit protection devices 	D	RSAI staff	SMS-06-SW-0274 Electrical Equipment Selection Inspection and Testing
		Head injury from underneath rolling stock	C+	<ul style="list-style-type: none"> Wear bump hat 	D	RSAI staff	SMS-06-GD-0323 PPE Guide
	e) Conduct test with chart recorder	Electric shock from generator or power supply	C+	<ul style="list-style-type: none"> Check generator and leads for condition and electrical tags before use Generator fitted with earth leakage device Use of circuit protection devices 	D	RSAI staff	SMS-06-SW-0274 Electrical Equipment Selection Inspection and Testing
		Noise from portable generator if used	C+	<ul style="list-style-type: none"> Wear ear plugs or ear muff Place generator down wind and away from work area Screen generator from work area 	D	RSAI staff	SMS-06-SW-0531 Hearing Protection
		Head injury from underneath rolling stock	C+	<ul style="list-style-type: none"> Wear bump hat 	D	RSAI staff	SMS-06-GD-0323 PPE Guide
		Muscular strain handling generator	C+	<ul style="list-style-type: none"> Correct lifting technique with 2 persons Use hand trolley to carry equipment 	D	RSAI staff	SMS-06-GD-0001 Guide to Manual Handling
	f) Remove worksite protection	Miscommunication	C+	<ul style="list-style-type: none"> Ensure everyone understands the requirements by seeking confirmation of instructions 	D	Protection Officer or Team Leader in other sites	Network Rules & Procedures

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
3		Trip hazard from tracks and uneven ground	C+	<ul style="list-style-type: none"> Wear safety boots Ensure the worksite is clear of debris Position tools, equipment and materials in a safe place clear of walkways, refuges and vehicular access routes Identify slippery surfaces, wet locations, grease pots etc within the worksite Avoid carrying loads on steep embankments Avoid steep slope Share or minimise loads Walk slowly and purposefully through areas of high risk 	D	Team Leader and Team member Protection Officer	RSP 013 Static Test Site Check Sheet
		Unplanned movement of vehicle	C+	<ul style="list-style-type: none"> Ensure handbrakes applied to secure train or vehicle movement Front and back wheels chocked with wedges 	D	RSAI staff	RSP 008 Static Twist Test for Rolling Stock
		Struck by train/vehicle	B+	<ul style="list-style-type: none"> Wear high visibility vest Use red flags as Network Rules & Procedure When outside RailCorp sites, use witches hats or barricades around work area 	D	Protection Officer or Team Leader from external organisation	Network Rules & Procedures External System for Site Induction

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
4	4 Brake testing within a yard or siding: a) Apply appropriate worksite protection	Trip hazard from tracks and uneven ground	C+	<ul style="list-style-type: none"> Wear safety boots Ensure the worksite is clear of debris Position tools, equipment and materials in a safe place clear of walkways, refuges and vehicular access routes Identify slippery surfaces, wet locations, grease pots etc within the worksite Avoid carrying loads on steep embankments Avoid steep slope Share or minimise loads Walk slowly and purposefully through areas of high risk 	D	Team Leader and Team Member Protection Officer	RSP 013 Static Test Site Check Sheet
		Unplanned movement of vehicle	C+	<ul style="list-style-type: none"> Ensure handbrakes applied to secure train or vehicle movement Front and back wheels chocked with wedges 	D	RS&I staff	RSP 008 Static Twist Test for Rolling Stock
		Struck by train/vehicle	B+	<ul style="list-style-type: none"> Wear high visibility vest Use red flags as Network Rules & Procedure When outside RailCorp sites, use witches hats or barricades around work area 	D	Protection Officer or Team Leader from external organisation	Network Rules & Procedures External System for Site Induction
		Exposure to UV radiation	C+	<ul style="list-style-type: none"> Wide brim hats Wear Long sleeve shirts and long trousers Apply Sunscreen every two hours as required 	D	Protection Officer or Team Leader from external organisation	SMS -06-SW-0537 Sunscreen SMS-06-GD-0323 PPE

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
		Exposure to heat / cold	C+	<ul style="list-style-type: none"> Ensure personnel are trained in the signs and symptoms of heat stress such as dark yellow urine, fatigue, dehydration, cramps, nausea, rapid breathing Wear long sleeve cotton shirt and long cotton trousers Drink water at regular intervals Schedule work outside the hottest part of the day Utilise shade where possible Take regular breaks and pace work activities 	D	Protection Officer or Team Leader from external organisation	WorkCover Code of Practice Work in Hot & Cold Environments SMS-06-GD-0323 PPE
4	b) Position vehicle on test track	Struck by moving train or vehicle	A+	<ul style="list-style-type: none"> Stay in safe area instructed by protection officer High visibility vests Follow external site induction 	C+	RS&I staff Protection Officer All on site	Network Rules and Procedures or External Organisational System – Site Induction
	c) Conduct test	Collision with train or vehicle	A+	<ul style="list-style-type: none"> Ensure vehicle stays within protection area Start brake testing from low speed 	C+	RS&I staff Protection Officer	RSP004 Locomotive Brake Block Force Measurement RSP005 Wagon Brake Block Force Measurement RSP006 Brake Performance Measurement

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
		Derailment	C+	<ul style="list-style-type: none"> Do not exceed track or vehicle speed limits Start testing at low speed 	D	RSAI staff Protection Officer	RSP004 Locomotive Brake Block Force Measurement RSP005 Wagon Brake Block Force Measurement RSP006 Brake Performance Measurement
		Struck by moving train or vehicle	A+	<ul style="list-style-type: none"> Stay in safe area instructed by protection officer High visibility vests Follow external site induction 	C+	Team Leader and members Protection Officer	RSP 013 Static Test Site Check Sheet
4	d) Remove worksite protection when Brake Testing completed	Miscommunication	C+	<ul style="list-style-type: none"> Ensure everyone understands the requirements by seeking confirmation of instructions 	D	Protection Officer or Team Leader in other sites	Network Rules & Procedures
5	5 Setting up equipment for Dynamic testing on a train/vehicle a) Apply appropriate worksite protection	Trip hazard from tracks and uneven surfaces	C+	<ul style="list-style-type: none"> Wear safety boots Ensure the worksite is clear of debris Position tools, equipment and materials in a safe place clear of walkways, refuges and vehicular access routes Identify slippery surfaces, wet locations, grease pots etc within the worksite Avoid carrying loads on steep embankments Avoid steep slope Share or minimise loads Walk slowly and purposefully through areas of high risk 	D	Protection Officer	EPR 0013 Static Test Site Check Sheet

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
5		Struck by train or vehicle	B+	<ul style="list-style-type: none"> Wear high visibility vest Use red flags as Network Rules & Procedure When outside RailCorp sites, use witches hats or barricades around work area 	D	Protection Officer	RailCorp Network Rules and Procedures
		Electric shock from electrical leads in test area	B+	<ul style="list-style-type: none"> Isolate and remove electrical leads before work set up Induct team members on electrical leads identified in Static Test Site Check Sheet 	D	Protection Officer	EPR 013 Static Test Site Check Sheet
		Noise when in workshop environment	C+	<ul style="list-style-type: none"> Wear ear plugs or ear muffs 	D	Protection Officer	SMS-06-SW-0531 Hearing Protection
		Exposure to UV radiation	C+	<ul style="list-style-type: none"> Wide brim hats Wear Long sleeve shirts and long trousers Apply Sunscreen every two hours as required 	D	Protection Officer	SMS -06-SW-0537 Sunscreen SMS-06-GD-0323 PPE
		Exposure to heat / cold	C+	<ul style="list-style-type: none"> Ensure personnel are trained in the signs and symptoms of heat stress such as dark yellow urine, fatigue, dehydration, cramps, nausea, rapid breathing Wear long sleeve cotton shirt and long cotton trousers Drink water at regular intervals Schedule work outside the hottest part of the day Utilise shade where possible Take regular breaks and pace work activities 	D	Protection Officer	WorkCover Code of Practice Work in Hot & Cold Environments SMS-06-GD-0323 PPE
		Miscommunication	C+	<ul style="list-style-type: none"> Ensure everyone understands the requirements by seeking confirmation of instructions 	D	Protection Officer or Team Leader in other sites	Network Rules & Procedures

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
5	b) Position vehicles and secure red flag on both sides of vehicle/s	Unplanned movement of vehicle	C+	<ul style="list-style-type: none"> Ensure handbrakes applied to secure train or vehicle movement Front and back wheels chocked with wedges 	D	RSAl staff	RSP 008 Static Twist Test for Rolling Stock
		Struck by train/vehicle	B+	<ul style="list-style-type: none"> Wear high visibility vest Use red flags as Network Rules & Procedure When outside RailCorp sites, use witches hats or barricades around work area 	D	Protection Officer or Team Leader from external organisation	Network Rules & Procedures External System for Site Induction
		Hand injury from chocking wheels	C+	<ul style="list-style-type: none"> Wear well fitted puncture proof gloves 	D	RSAl staff	SMS-06-SW-0530 Protective Gloves
	c) Unloading/loading equipment	Manual handling/muscular strain	C+	<ul style="list-style-type: none"> Correct lifting technique with 2 persons Use box trailer or hand trolley to carry equipment 	D	Team Leader and members and all on site	SMS-06-GD-0001 Guide to Manual Handling
	d) Connecting equipment to electrical power supply	Electric shock from generator or power supply	C+	<ul style="list-style-type: none"> Check generator and leads for condition and electrical tags before use Generator fitted with earth leakage device Use of circuit protection devices 	D	RSAl staff	SMS-06-SW-0274 Electrical Equipment Selection Inspection and Testing
		Noise from portable generator if used	C+	<ul style="list-style-type: none"> Wear ear plugs or ear muff Place generator down wind and away from work area Screen generator from work area 	D	RSAl staff	SMS-06-SW-0531 Hearing Protection
		Head injury from underneath rolling stock	C+	<ul style="list-style-type: none"> Wear bump hat 	D	RSAl staff	SMS-06-GD-0323 PPE Guide
	e) Set up test equipment	Muscular strain handling generator	C+	<ul style="list-style-type: none"> Correct lifting technique with 2 persons Use hand trolley to carry equipment 	D	RSAl staff	SMS-06-GD-0001 Guide to Manual Handling

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
5		Electric shock from electrical equipment	C+	<ul style="list-style-type: none"> Check generator and leads for condition and electrical tags before use Generator fitted with earth leakage device Use of circuit protection devices 	D	RSAI staff	SMS-06-SW-0274 Electrical Equipment Selection Inspection and Testing
		Head injury from underneath rolling stock	C+	<ul style="list-style-type: none"> Wear bump hat 	D	RSAI staff	SMS-06-GD-0323 PPE Guide
6	6 Brake testing on a running line: a) Apply appropriate worksite protection	Trip hazard from tracks and uneven ground	C+	<ul style="list-style-type: none"> Wear safety boots Ensure the worksite is clear of debris Position tools, equipment and materials in a safe place clear of walkways, refuges and vehicular access routes Identify slippery surfaces, wet locations, grease pots etc within the worksite Avoid carrying loads on steep embankments Avoid steep slope Share or minimise loads Walk slowly and purposefully through areas of high risk 	D	Team Leader and members Protection Officer	RSP 013 Static Test Site Check Sheet
		Unplanned movement of vehicle	C+	<ul style="list-style-type: none"> Ensure handbrakes applied to secure train or vehicle movement Front and back wheels chocked with wedges 	D	RSAI staff	RSP 008 Static Twist Test for Rolling Stock
		Struck by train/vehicle	B+	<ul style="list-style-type: none"> Wear high visibility vest Use red flags as Network Rules & Procedure When outside RailCorp sites, use witches hats or barricades around work area 	D	Protection Officer or Team Leader from external organisation	Network Rules & Procedures External System for Site Induction

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
6		Exposure to UV radiation	C+	<ul style="list-style-type: none"> Wide brim hats Wear Long sleeve shirts and long trousers Apply Sunscreen every two hours as required 	D	Protection Officer or Team Leader from external organisation	SMS -06-SW-0537 Sunscreen SMS-06-GD-0323 PPE
		Exposure to heat / cold	C+	<ul style="list-style-type: none"> Ensure personnel are trained in the signs and symptoms of heat stress such as dark yellow urine, fatigue, dehydration, cramps, nausea, rapid breathing Wear long sleeve cotton shirt and long cotton trousers Drink water at regular intervals Schedule work outside the hottest part of the day Utilise shade where possible Take regular breaks and pace work activities	D	Protection Officer or Team Leader from external organisation	WorkCover Code of Practice Work in Hot & Cold Environments SMS-06-GD-0323 PPE
	b) Position vehicle on test track	Struck by moving train or vehicle	A+	<ul style="list-style-type: none"> Stay in safe area instructed by protection officer High visibility vests Follow external site induction Ensure train crew have TOC Waiver and understand its requirements 	C+	RSAI staff Protection Officer All on site	Network Rules and Procedures or External Organisational System – Site Induction
	c) Conduct Dynamic Test on a running train	Derailment	B+	<ul style="list-style-type: none"> Ensure train crew have TOC Waiver and understand its requirements Testing staff to discontinue test if train/vehicle considered unsafe 	D	RSAI staff Team Leader and all on board Train or Vehicle Protection Officer	Network Rules and Procedures
		Collision	B+	As above	D	RSAI staff Team Leader and all on board Train or Vehicle Protection Officer	“

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
6		Trip hazard	C+	<ul style="list-style-type: none"> Test equipment and leads in cabin to be taped down on floor Where possible stay seated while train is in motion. Maintain good housekeeping 	D	RSAI staff Team Leader and all on board Train or Vehicle Protection Officer	
		Hit by outside object when train/vehicle moving	B+	<ul style="list-style-type: none"> Ensure whole body remain within cabin 	D	RSAI staff Team Leader and all on board Train or Vehicle Protection Officer	RSP 013 Static Test Site Check Sheet
	d) When train / vehicle stopped on route to check/repair equipment	Strike by train/vehicle	A	<ul style="list-style-type: none"> Staff not to exit cabin of vehicle until permitted by Protection Officer Position and secure red flag on both sides of vehicle Ensure Handbrakes applied to secure train or vehicle from movement Ensure Brake Pipe Pressure reduce to zero High visibility vests Torches and external lights if dark 	C+	RSAI staff Team Leader and all on board Train or Vehicle Protection Officer	Network Rules Procedures SMS-06-PR-0173 Plant and Equipment Lock Out Tag Out
7	7 Remove equipment and worksite protection when Dynamic Test completed	Miscommunication	C+	<ul style="list-style-type: none"> Ensure everyone understands the requirements by seeking confirmation of instructions 	D	Protection Officer or Team Leader in other sites	Network Rules & Procedures
		Muscular strain from pack up equipment	C+	<ul style="list-style-type: none"> Use hand trolley to carry equipment Team lifting 	D	RSAI staff Team Leader	SMS-06-GD-0001 Guide to Manual Handling

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
7		Trip hazard from tracks and uneven ground	C+	<ul style="list-style-type: none"> Wear safety boots Ensure the worksite is clear of debris Position tools, equipment and materials in a safe place clear of walkways, refuges and vehicular access routes Identify slippery surfaces, wet locations, grease pots etc within the worksite Avoid carrying loads on steep embankments Avoid steep slope Share or minimise loads Walk slowly and purposefully through areas of high risk 	D	Team Leader and members Protection Officer	RSP 013 Static Test Site Check Sheet
		Struck by moving train or vehicle	A+	<ul style="list-style-type: none"> Stay in safe area instructed by protection officer High visibility vests Follow external site induction 	C+	RSAI staff Protection Officer All on site	Network Rules and Procedures or External Organisational System – Site Induction
		Electric shock from electrical equipment	C+	<ul style="list-style-type: none"> Check generator and its electrical tag before use Generator fitted with earth leakage device Use of circuit protection devices 	D	RSAI staff	SMS-06-SW-0274 Electrical Equipment Selection Inspection and Testing

Testing of Rolling Stock

Issue date: 02/12/10

Review date: 01/12/13

NOTE: Each work group or team member must sign off on the SWMS to acknowledge they have been briefed about or instructed in the SWMS

Team member name (Please print)	Team Member signature	Instructor/ Briefer name	Date	Team member name (Please print)	Team Member signature	Instructor/ Briefer name	Date