

Theatre Royal Nelson Site Specific Safety Plan

This SSSP is to be used by all workers in The Theatre Royal Nelson.

Current health and safety legislation states any person who carries out work in any capacity is considered a worker in our venue.

This SSSP identifies and rates hazards, and provides control methodology for the risks present during an average* venue use.

This SSSP does not replace any companies overarching Health and Safety Hazard registers.

*This is to be used in conjunction with a Show Specific Safety Plan provided to the venue by producing companies. This document shall outline the hazards, risks and control methodology being introduced to our facility with their production.

For more information:

New Zealand Health and Safety Legislation <u>www.sitesafe.co.nz</u>

Health and Safety within The Theatre Royal www.theatreroyalnelson.co.nz/docs

Safe working practices within the entertainment technology industry www.ETNZ.org

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ATMOSPHERIC EFFECTS

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Respiratory Hazard - Haze, Smoke, Dry Ice	All	4	2	8	 Use only the minimum concentration for the minimum period of time necessary. Avoid heavy concentrations where people are exposed. All personnel should be informed in advance of the intention to use atmospheric effects and the type to be used. Before use, there should be a discussion of the hazards and precautions being taken. Obtain Safety Data sheets of all smoke and fog products, noting in particular whether the reactivity section lists any hazardous decomposition products. Use only the haze or fog fluid as recommended by the manufacturer.

BACKSTAGE/WINGS GENERAL

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Low level lighting - Impact / Trip / Fall	All	4	4	16	 Blue lights throughout the building provide low-level light during rehearsal / performance. Blue lights shall be used in areas of work when working lights are turned off. At no time (except building departure) shall backstage be in a full blackout. Other than dress rehearsals or performance, Lighting operators should verbally notify all of those onstage of an impending black-out. All objects placed in the wings or backstage areas, should be flagged with high-vis, glow or white tape to alert their presence. Arrows may be required to identify path direction. Cast/crew should be informed of all low visibility hazards. Stairwells must always be lit with blue lights during performances / rehearsals All venue stair edges are clearly marked with a high visibility tape.
Access paths blocked by set/ props	All	3	4	12	 A minimum 1m walkway must be maintained through all areas at all times (except while repositioning) Movement of equipment and cast to be managed to reduce times of congestion.
Aerosol products - Respiratory damage / flammable substance	All	2	3	6	 Spray on deodorants not to be used in dressing rooms or other confined spaces. With larger casts, hairspray shall not be used in dressing rooms, rather a hair / make up station should be set up in a larger space i.e scene dock. Use of any aerosol products must be kept well away from any naked flames, sparks or heat sources.
Cables - Trip	All	4	3	12	 Plan cable-runs to avoid crossing walkways. Securely tape down small cable runs, identifying with white, glow or high vis tape. Use vellow jacket style cable covers

BIOLOGICAL

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
The creation or propagation of harmful bacteria in the kitchen, dressing rooms, toilets and showers	All	3	4	12	 Waste disposal is provided on site Internal bins should be emptied regularly Backstage toilets and Shower facilities including disabled access are provided. Dressing rooms are professionally cleaned between seasons and must be maintained during seasons by the producing company. Facilities including backstage toilets are kept in a clean and hygienic condition by our contracted cleaning company, but should be maintained daily by the in-house producing company during long seasons. Cleaning supplies including dishwashing facilities are provided in the downstairs kitchenette to allow users to maintain the hygiene of spaces.
Transfer of ilness	All	3	4	12	 Unwell persons should be be asked to remain home until well. In the case of Norovirus, unwell persons shall remain away from site for no less than 48 hours following their most recent episode of diarrhoea or vomiting. Document cases of illness with the Theatre Royal Illness register. Wash shared costumes and clean shared props or commonly touched surfaces (light switches, door handles etc.) with a bleach based disinfectant.

ELEVATED WORK PLATFORMS (EWP)

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Accident cause by insufficiently experienced operators.	Crew Using EWP	3	4	12	 No person should operate the EWP without the express permission of the relevant supervisor, e.g. Venue Technical Manager, Venue Technician, or senior Community Crew member. A induction is to be given to all persons using the venues EWP (specifically) for their first time. Tasks requiring the use of the EWP to be designated only to crew with sufficient experience in the full range of tasks required (i.e good upper body strength and rigging experience if hanging lamps)
Accident caused by equipment damage or poor maintenance	Crew Using EWP	1	4	4	 Carry out the visual inspection and record the results in the on-board log book 6 Monthly inspection / maintenance checks by certified Lift inspector

ELEVATED WORK PLATFORMS (EWP)

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Moving the EWP with a person at height in the bucket Fall / falling object hazard.	Crew Using EWP	4	5	20	 All alternatives should be considered before moving the EWP with a person at height. All extension arms must be installed be as close to the floor as possible. The mast must not be at full extension. The EWP shall always be pushed, not pulled. There should always be two people to provide stability of movement. In order to maintain clear communication there should be minimal noise, and if moving the EWP, working lights/state should be turned on until the EWP is safely positioned. A clear path should be ensured before any movement is undertaken.
During use, the EWP may be prone to collision with object through either horizontal or vertical movement.	Crew Using EWP	3	3	9	 Prior to ascending or descending, ensure the EWP will not collect any other objects (Lamps, Rigging, Cables,Set etc) in its path. Be aware of clearances when operating or travelling the EWP Ensure clear communication between the operator in the bucket and person manoeuvring the EWP to avoid any nearby objects.
Falling objects while work at height.	All	3	5	15	 Persons entering the area below the EWP when someone is working at height must be wearing a helmet. When Woking at heights, only essential tools and equipment should be used. Prior to ascending, all tools should be secured with lanyards to prevent them falling on those below. Pockets must be empty and any loose personal objects or accessories removed. All work being carried out with unsecured objects at height shall be verbally announced to the immediate crew.

FATIGUE / HOURS OF WORK

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Physical, mental or emotional fatigue can lead a person to become unsafe	All	3	5	15	 Ensure adequate staffing levels Provide optional levels of physical and mental activities interspersed with regular breaks to ensure recovery. Design rosters safely with adequate regular breaks of at least 1 hr within a 5hr work period. Select people who fit the requirements of the task. Make sure work/tasks are clearly defined Provide feedback to workers about their performance and support when they encounter difficulty doing their work, or when they have emotional or family difficulties Encourage all to maintain health and fitness Learn to recognise fatigue in yourself as well as others.

FATIGUE / HOURS OF WORK

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Prolonged work hours are a primary cause of fatigue	All	3	5	15	 Schedules must allow for all workers to take their legal and contractually agreed breaks, and as such must be sufficient for workers to rest and recover so they are safe to work. Workers shall not exceed 13 hours of work time in any cumulative work day. Workers shall have at least 10 hours of continuous rest. Workers should not exceed 70 hours in any cumulative week.

FIRE

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Fire Spreading	All	1	5	5	 Fire extinguishers are well signposted and provided thought the building. Isolated area sprinklers activate once exposed to a temperature above the set threshold to douse flames reducing the spread of fire. Venue staff shall be trained in the use of fire-extinguishers.
Fire systems failing to perform	All	1	5	5	 Full fire systems check occurs monthly including fire extinguisher, alarm, emergency lighting and sprinkler pressure tests. Daily fire-checks confirm systems are operational.
The propagation of fire by drapery, painted drops, or other fabrics used as, or on scenery.	All	3	5	15	 All flexible Fabrics provided by the venue are maintained as fire retarded in accordance with NZ Building Code. A log of treatment dates and types is available on request. All flexible fabrics used as/on scenery or large areas of fabric must be flame retarded. Confirmation must be provided to the venue that fabrics comply
The propagation of fire by flammable costumes		4	5	20	• Costumes should be fire retarded when there is a risk present by the use of naked flame and/or pyrotechnics in the production.
Failure to evacuate through not knowing the correct procedure	All	4	5	20	 All persons entering the building for their first time are to undergo a venue induction including fire evacuation protocols. Signposts are located around the venue identifying the evacuation meeting point Fire exits are marked with illuminating signage maintained.
Leaving a person in the building during an evacuation	All	4	5	20	 In the event of a fire, the venue stage manger becomes the backstage fire warden and will patrol the building to ensure all areas have been evacuated. The Sign in / Out sheet becomes a role-call for the SM to ensure all those listed as in the building have been evacuated safely.
Vehicles obscuring or demising Stage door egress	All	5	4	20	 Vehicles may only access the dock during pack in and pack out. At all other times the yellow striped area must remain clear. Vehicles may only park in the designated parks.
Objects obscuring access to fire extinguishers	All	3	5	15	 The area in front of fire extinguishers should remain clear at all times. Fire extinguishers should be placed infant of any item blocking access to its usual position.

FIRE

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Technical equipment / staging in auditorium affecting audience egress	Audience	2	4	8	 Use of the main auditorium space for production requirements must be discussed in advance with the venue. The placement of technical equipment or staging in the auditorium may not impact the audiences ability to safely access or evacuate the space. A minimum 1m egress must be retained and consider wheelchair spaces.

FLY TOWER & RIGGING

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Accident or damage caused by improper use	Rigging Crew	2	5	10	 Properly trained and competent persons only must be involved with the safe operation, function and routine maintenance of any rigging equipment. Follow the prescribed and safe working procedures when loading/unloading, or operating rigging systems. The operation of an unbalanced counterweight system may be required under special circumstances (e.g. during the flying of performers) The system must always be operated within the manufacturers guidelines and the ability of the operator(s) to hold the out of balance load safely. Packing must be used between slings and sharp objects.
Failure of rigging equipment due to age / wear and tear.	Rigging Crew	1	5	5	 All rigging equipment must be inspected once per year by a qualified person (a certificate of test/inspection must be provided.) Repairs and modifications must only be made be carried our by a suitably qualified person. Damaged or defective slings, ropes, wires, shackles or other rigging equipment must be removed from service immediately. All Rigging components should be visually assessed prior to their use.
Failure of equipment due to overloading	Rigging Crew	1	5	5	 The Safe Working Load (SWL) Shall never be exceeded The Safety Factor of any rigging is 1:5 (Unless stated otherwise) Always calculate the effect slinging methods and bridle angles on load bearing
Failure of; or damage caused to rigging equipment by improper use.	Rigging Crew	1	5	5	 Items suspended to the rigging systems must meet venue and industry construction and fixing methods before they will be installed. Chains or rope must not be shortened by knotting. Rope locks are not to be used as brakes. Ribbons are the only acceptable method of marking fly positions. Tape is not to be used.
Collision of flown objects with other flown, or ground based objects/ personnel	Fly Op / ALL	3	4	12	 Visual contract with any moving piece must be maintained while in control at all times. When moving flown scenery always warn those below and/or above verbally prior to flying said items. When it is not practical (i.e during performance) in which event appropriate communication systems must be implemented and rehearsed by all involved.

FLY TOWER & RIGGING

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Failure of rigging due to fire	Rigging Crew	1	5	5	• Steel slings shall be used as a secondary for fibre slings if there is a risk of fire.
Flying of Performers	Rigging Crew	1	5	5	• The creation, design and installation and operation of a system for the flying of performers must only be undertaken by persons who are deemed competent and who have received training by a qualified person in the use of the particular equipment to be used.

LADDERS

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Accident caused by improper use	Crew	2	4	8	 Personnel should face the ladder while ascending / descending Stepladders should only be used in the completely open position, and only climbed on the side with steps. Never place ladders onto other objects i.e box or tables to increase height. A step ladder should not be used as a work platform. Workers should not stand in the top step.
Stored ladders falling during earthquake	All	1	5	5	 Ladders are to be stored in the designated area, secured to the wall with the supplied ratchet strap.
Falling object	Crew	2	4	8	 Prior to ascending, all tools should be secured to the users with lanyards to prevent them falling on those below. Materials should never be left on the ladder, or dropped or pitched to another worker.
Failure due to structural or mechanical damage	All	2	5	10	 Ladders should be inspected as set up Ladders are inspected and maintained annually. Ladders should always be visually inspected before use to ensure they are in safe condition. Any ladder showing a defect should be reported to the venue staff and set aside from use.

LIGHTING AND ELECTRICAL

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Electrical faults caused by faulty workmanship	All	2	5	10	• Only those persons accredited under relevant legislation shall be engaged to undertake electrical maintenance and or installation.

LIGHTING AND ELECTRICAL

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Electrical fault due to general wear and tear	All	2	5	10	 Cables should not be twisted, crushed or kinked Any deteriorated or poorly maintained light or other powered equipment should be removed from service and/or replaced. Cables shall be protected from sharp edges or heavy loads. Cables should be checked regularly for overheating, loose connections, fraying or other damage. All equipment is to be well maintained and tested in accordance with ASNZS3760.
Electrical hazard due to moisture / liquid	All	2	5	10	 When there is a possibility of moisture, any joins will be provided with adequate weather protection. Isolation of liquids from areas with electrical devices. Drinks required in areas such as the orchestra pit are to be in contained spill proof vessels.
Trip hazard of cables crossing walk-ways	All	4	3	12	 Cable routing should take into account and not create a tripping hazard Cables should be secured with tape and flagged
Electrocution	Crew	2	5	10	• Before working on any electrical equipment it must be properly isolated. This includes when having to service lamps after the luminaire is rigged.
Falling object	All	1	5	5	 All hung fixtures must have a safety chain. A full check of all fixtures security to a bar/truss should be confirmed before lifting to height.
Unstable objects	All	1	4	4	All lighting fixtures or stands should be properly supported to prevent tipping
Insufficient lighting causing injury	All	3	4	12	 Blue lights throughout the building provide low-level light during rehearsals or performance. At no time (except building departure) shall backstage be in a full blackout. There should be adequate lighting in backstage areas At times other than dress rehearsals or performance, Lighting operators should verbally notify all those onstage of an impending black-out.
Impact with objects in areas of low-light	All	3	4	12	• Solid objects in areas of low light are to be flagged with a white, glow or high visibility tape. All cast and crew to be informed of said objects during induction.
Electrical Fire	All	1	5	5	Appropriate fire extinguishers are provided in areas with high levels of electrical energy.
Electrical fault caused by overloading	Crew	2	4	8	 All electrical personnel should be aware of the load-bearing capability of cables and boxes. Do not exceed the available current draw for any given circuit. Care must be taken when using tap on plugs and adaptors that circuits are not overloaded Maximum loads of dimmers shall not be exceeded so as to avoid overloading and a consequent fire hazard.
Electrocution or fire caused by heat of lamps	Crew	3	5	15	 Clearance should be maintained between lighting equipment and flexible cords Lighting fixtures must be fitted with the correct heat resistant cables.
Seizure caused by strobe lighting	All	1	5	5	 If strobe lighting is employed on a performance, The venue must be notified at least 1 hour before show. In this case, signage will be placed at point of sale and auditorium entrances. Flicker rates of 4 flashes per second or less are recommended and all strobes should be synchronised when more than one is used.

MANUAL HANDLING

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Physical injury caused through improper lifting/carrying technique, over exertion or attempting to lift more than they are capable of	Crew	4	4	16	 Stand as close to the load as possible with elbows close to your sides and feet apart for good balance. Bend your knees and straddle the load Always try to lift when standing or at least half squatting rather than kneeling or not using your legs Keep your back as straight as possible whilst lifting / carrying Do not twist your body to change direction, use your feet.
Accident when liftings a team	Crew	4	4	16	 Ensure one person is in charge during team lift Where possible ensure members of a team lift are of similar height Position people for the lift having regard to the size, shape and balance of the load

NOISE AND SOUND

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Hearing damage due to exposure to high sound pressure sound pressure levels	All	3	4	12	 Exposure for each noise should be kept below 80 decibels on average per day Peak sound pressure levels should not exceed 140 decibels Employ PPE such as earplugs or muffs when working in or around loud environments.
Loud or unexpected noise using fright or distraction	All	2	4	8	 The creation or playback of a loud noise shall be forewarned by verbal notification. Nuisance noise such as high pitch unexpected or distracting noises shall be minimised.

PORTABLE TOOLS

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Defective / unsafe tools	Build crew	2	4	8	• Any defective or unsafe equipment should be tagged as such, reported to a member of venue staff and not used until repaired.
Unsafe use of tools Causing injury	Build Crew	2	4	8	 Loose materials such as rags or loose clothing or hair must be kept away from moving parts i.e drills. Tools must not be used beyond their design capacity Hands must be dry and kept free of oil and grease while using hand tools Tools must maintain their factory guards attached. Do not distract those worth with power tools / machinery
Spray Paint drift : Respiratory and damage to property	Crew	1	3	3	All spray painting is to take place outside of the theatre.
Electrocution / Electrical Fault	All	2	4	8	All tools and chargers requiring 10A power supply must be tagged and tested.
Trip hazard	Crew	2	3	6	Tools or electrical leads must not be left where they can create tripping hazards

PORTABLE TOOLS

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Hearing Damage	All	2	4	8	 Hearing protection should be worn when using loud tools i.e impact drivers. When working intermittently or around non construction crew, signal you intent to create a loud noise allowing those near to block their ears.
Eye Damage - Dust / debris	Build Crew	2	4	8	Safety glasses or a face shield should be worn when using power tools.
Respiratory Damage - Dust	Build crew	1	4	4	 Work creating significant quantities of dust i.e sawing, drilling or sanding must not take place within the theatre. Respiratory protection should be worn.

SCAFFOLDING

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Structure collapse or instability; Injury to personnel during construction.	Crew building and all accessing Scaffolding	3	5	15	 Scaffolding should be erected and dismantled by experienced personnel using the proper equipment. A certified scaffold rigger must erect any structure that bears the load of people, or exceeds 5m in height. Scaffolding more than 1.8m high must be fully planked out with toe boards and continuous handrails to ensure a safe work platform. Scaffolds hold be constructed so they can support up to 4 times the maximum intended load, including dynamic loads. Scaffolders must install appropriate, clear and unobstructed signage during construction, dismantling, adjustment or modification of scaffolding. Unauthorised adjustments to scaffolding structures are illegal.
Injury to personnel or or damage to property surrounding the use of mobile scaffolding towers	Crew building and using scaffolding	3	4	12	 Rolling scaffold towers must have the proper cross and horizontal bracing, and at least two of the four castors must be swivel type with locking capability. Mobile scaffolding must not be moved whilst supporting people. All wheels must be locked before working on a mobile scaffolding
Objects falling from height while using or constructing scaffolding.	Crew	3	4	12	 All hand tools must be secured to the worker. Equipment being ferried up/down the scaffolding must be properly secured. All equipment on top must be secured to the framework.
Instability of scaffolding used as lighting booms	All	2	4	8	 Sufficient weight ballast must be applied to baseplates to ensure boom poles are stable and are not subject to falling when accidental lateral loads are applied.

STAGING

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Trip hazard on multi-level staging/ stairs	All	3	3	9	All elevation changes should be clearly marked and safe.
Slip Hazard	All	3	3	9	 The stage floor should be kept clean and tidy at all times to ensure the most appropriate surface is being provided. Sweeping and mopping should only take place when other activities are scheduled for the space Ensure the stage will be dry in time for use.

WORKING AT HEIGHT

Description of hazard, risk & associated activity	Affected	Likelihood	Severity	Risk Rating	Control Measures
Impact by falling Object while others work at height. i.e above the stage while rigging objects on the grid.	All	3	5	15	 No person should enter the stage area below where anyone is working at heights without the express permission of the relevant supervisor, e.g. Head Mechanist, Production Manager, Technical Director or other. Any persons required to work beneath another person at height (i.e assisting role) must wear a riggers helmet. Warning signs must be clear and unobstructed. When Woking at heights, only essential tools and equipment should be used. Prior to ascending, all tools should be secured with lanyards to prevent them falling on those below. Pockets must be empty and any loose personal objects or accessories removed.