

Working Practice: Technical Stagecraft



1. DEFINITIONS

March 2021

1.1 A responsible person

One who is able to manage others in the undertaking of **low-risk** tasks.

1.2 A competent person

1.2.1 One who by training or experience would have knowledge greater than the average worker.

1.2.2 One who is able to direct and supervise others in the undertaking of **high-risk** tasks.

1.2.3 A person who by training or experience would identify and rationalise risk continuously throughout a task, be prepared to stop a task at any point if necessary and safe to do so, determine and realise a safe resolution of the situation at any stage of the task if necessary and bring the task to an appropriate conclusion.

1.3 Low-risk tasks

These are not expected to be life-threatening, and previous experience of the task is not mandatory.

- *The following tasks are considered low-risk:*

Painting (including management of spillages and cleaning of brushes) in a safe way to avoid trip hazards, moving of chairs and tables, covering of floors such as to avoid trip hazards, moving of scenery elements at a low height from the floor, activities related to building and managing hand props.

1.4 High-risk tasks

These are potentially life threatening and require undertaking or supervising by a competent person.

- *The following tasks are considered high-risk:*

Lifting, sawing, use of sharp tools, use of powered tools, use of extension cables, activities requiring two or more people, design of structures, fixturing of structures, determination of manner of use of structures, working at height (including ladders, towers and platforms of all kinds, as well as from permanent catwalks and galleries and grids of all kinds), use of rope and pulleys for any purpose, arranging and rigging of any associated supports/structures, inspection of work prior to use of any kind including unattended storage.

1.5 The term 'High-risk'

For the purposes of this document, 'High-risk' means risk of failure, mishap or accident leading to significant risk of injury or death of an individual or individuals.

1.6 The term 'Accident'

An accident is generally regarded as any unintended event or sequence of events. An accident is potentially harmful to individuals and may be life-threatening.

1.7 The term 'Stage'

As our usual venues have an open stage with no safety curtain, the stage embraces the auditorium.

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2. METHOD STATEMENT

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This document ensures all technical work is undertaken safely, and the risks implied are listed and managed in a way which is recognised and agreeable throughout the theatrical industry.

The technical work of a CADS production includes procurement, construction, delivery, and (for the duration of the production) assembly & operation of: necessary equipment, scenery, lighting, sound, stage sets, furniture and props.

2.1 Key Tasks

2.1.1 Specify, design and construct the stage scenery and all the built or procured equipment and items necessary for the production.

2.1.2 Specify, design and implement the lighting for the play. This includes flash lighting, strobe lighting and other special lighting effects.

2.1.3 Specify, design and implement the sound system for the production. This includes provision for public address, sound support for actors and singers, live music, sound effects and all radio-based systems e.g. radio mics.

2.1.4 Specify, design and implement pyrotechnics.

2.1.5 Plan and implement the necessary evolutions on the stage and other areas of the house.

2.2 Hazards causing potential harm

2.2.1 Error in design of stage elements, leading to accidents.

2.2.2 Error in the implementation of the design of stage elements, leading to accidents.

2.2.3 Operator error, including lack of clear and correct instruction given and operator inability to deliver on those instructions, leading to accidents.

2.2.4 Inappropriate selection of operator for a particular task, leading to an accident.

2.2.5 Working at height. (This includes follow-spot operation).

2.2.6 Incorrect operating of stage machinery and attendant equipment, including: towers, tallescopes, ladders, flying equipment, flown elements (e.g. scenery, hemp lines, flown lighting-bars, sound control baffles), winch-based systems, hydraulic systems, compressed air systems, trap doors, lifts, safety curtain, fire detection/alarm equipment, lighting of working areas, cue light systems, computer- or Bluetooth-based control systems, internal communication systems (wired and radio talk-back around the house and backstage), public address system, external communication system (e.g. to emergency services).

2.2.7 Operator(s) lifting incorrectly.

2.2.8 Operator(s) using power tools incorrectly.

2.3 Measures implemented

The measures implemented are: Design, Management, Supervision, Direction, Inspection and Sign-off.

2.3.1 Measure 1: **Design**

The scenery & equipment appropriate to the CADS production will be *designed* by a **responsible** person. The *design* itself will be inspected and signed off by a **competent** person (see Appendix 01).

2.3.2 Measure 2: **Management**

Low-risk tasks are *managed* by a **responsible** person.

2.3.3 Measure 3: **Supervision**

High-risk tasks are *supervised* by a **competent** person.

2.3.4 Measure 4: **Direction**

The activities and works undertaken are the responsibility of the Technical Director and as such that individual *directs* the activities and works.

2.3.5 Measure 5: **Inspection and sign-off**

Inspection and sign-off for scenery or equipment is undertaken prior to use by CADS or the point of handover to a third party, to establish that the scenery or equipment is safe to use.

Two competent people first agree the terms of the inspection and then *inspect* the scenery or equipment and agree whether the scenery or equipment is safe for use under the terms of the inspection. (For example, the terms could be: "To assure that the scenery & equipment is made and assembled correctly, and is considered to be safe for use for the duration of the production"). These terms are agreed and written down at the point of inspection (see Appendix 01).

This form, once *signed* and dated, is to be made available to any that it may concern.

Reference HSE website: <https://safetyculture.com/checklists/method-statement>

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3. GUIDELINES

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Technicians must deliver a satisfactory presentation of the stage (and auditorium) and operate it in an appropriate manner.

The following notes are included for clarification, and to help identify problems and provide a step-by-step method of analysis of the situation and a path for determining a safe outcome.

Guideline 1: Scenery Inspection

Inspections can be undertaken at any time for any declared reason. As defined above, **two competent** people are required to make the inspection.

Prior to handover for use, scenery must be inspected by two competent people to confirm the satisfactory design, build standard and manner of use implied by the construction. A document must indicate the scenery, its purpose, the date, and be signed by the **two competent** people who undertook the inspection.

Guideline 2: Working at height

Working at height means working above floor level for any purpose. Risks that arise are mitigated by experience and training. Particular attention must be paid to the carrying of any object at height and the consequences of its being dropped for any reason.

Guideline 3: Preparation & operation of the lighting

Over and above the risks described elsewhere, there is the risk of electric shock, burns or dazzling arising from the lighting equipment. The lighting operator or supervisor must be a **competent** person in order to undertake the preparation of the lighting. Where a 3-phase mains supply is used all personnel involved must be aware of the issues. Where follow-spots require operators to work at height, consideration must be given to every detailed action in order to mitigate the risk of dropping objects from height.

Guideline 4: Preparation & operation of the sound

Over and above the risks described elsewhere, there is the risk of electric shock and high decibel levels arising from the sound equipment.

Guideline 5: “Get-in” and rigging

All actions are the responsibility of the Technical Director (and the Musical Director where live music is required). All other personnel must undertake to abide by the instructions of the Technical Director and the Musical Director and not undertake independent action.

Guideline 6: Operating a show

All actions are the responsibility of the Stage Manager. They may confer with the Musical Director and Front of House Manager. All other personnel must undertake to abide by the instructions of the Stage Manager and not undertake independent action.

Guideline 7: Managing the interim time

Interim time is the time between shows where generally the stage and the house are not formally supervised. No activities are to be undertaken during this period unless sanctioned by the Stage Manager.

Guideline 8: Loan of equipment or scenery to a third party

Where a third party is involved, all the aspects stated elsewhere must be considered. A further consideration is the security of the stage and auditorium and the risks involved with trespass. Liability for situations arising must also be considered.

Guideline 9: Scenery risks – consideration and mitigation

- Scenery in use by CADS during a show.
Mitigation: Stage manager in attendance.
- Scenery stored on the stage or in a wing, not during a show.
Mitigation: Stage manager supervises safe securing and storage.
Mitigation: Conventional stage weight and brace system **not** to be used.
Mitigation: Safety rope(s) to the grid to be used to prevent falling. *[applies to KJAR]*
- Scenery to be left built but unattended over a short period of time (less than 24 hours).
Mitigation: Inspection by and subsequent use under Stage Manager supervision.
Mitigation: Safety rope(s) to the grid to be used to prevent falling. *[applies to KJAR]*
- Scenery to be left rigged and unattended overnight or a period of days.
Mitigation: Subsequent use under Stage Manager or **competent** person instruction.
Mitigation: Conventional stage weight and brace system **not** to be used.
Mitigation: Safety rope(s) to the grid to be used to prevent falling. *[applies to KJAR]*
- Scenery to be used by a third party.
Mitigation: Subsequent use under named, CADS-agreed **competent** person instruction & terms.

Guideline 10: “Strike” (clearing up)

The “strike” can involve inexperienced individuals with no knowledge of the working circumstances of the production. Experienced people may find themselves in a largely supervisory role and not able to undertake any specialised work.

Guideline 11: Tallescope

Use of the Tallescope must be supervised by a person who has been **trained** by Aluminium Access Products Ltd. The HSE imposes substantial fines where accidents are reported and are shown to be due to lack of training.

Guideline 12: Provision of refreshments

Whilst refreshments are considered essential, they provide a particular set of risks including boiling water and spillages. **Competent** people must undertake to monitor the refreshments area regularly and take action as appropriate.

Guideline 13: Stage weight and brace

The use of one or more conventional stage weight and brace combinations to support a piece of scenery is to be limited to use on a supervised stage, and the period of sole use of this support method is strictly limited to the duration of the production. This system is not considered to be unconditionally safe.

Guideline 14: French brace

The French Brace, where correctly installed, is preferred for scenery support.

Guideline 15: Flown scenery

Where it is deemed necessary for flown scenery to be left flown outside of live production time, it must be separately and safely supported in a way that can be inspected.

Guideline 16: Scaffolding clamps

Scaffolding clamps must be fully tightened using both halves if they are used. A half-open scaffolding clamp must never be left in the rig.

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4. APPENDICES

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Appendix 01: Inspection and Sign-off form

This form is to be kept (usually by the Technical Director) as a record, and to help clarify safe working. There may be several inspection and sign-off forms for any single production.

Example uses:

- To declare scenery/equipment is safe for the playing of the production.
- To declare scenery/equipment is stowed safely in public area (e.g. on/near stage).
- To declare scenery/equipment is safe to remain in place on stage between shows.
- To declare scenery/equipment is safe for 3rd party to borrow (with no liability accepted by CADS).

Production / Event (title & dates):

Scenery/equipment inspected:

Date of inspection:

Purpose of the inspection:

Result of the inspection:

Competent inspector 1 (for CADS)

Competent inspector 2 (for CADS)

Date & time:

Date & time:

Name:

Name:

Signature:

Signature:

Representative of 3rd party (if a 3rd party is involved)

Names of 3rd party & of their representative:

Date & time:

Signature: