

**Penrith Players Theatre**  
**Health & Safety Risk Assessment and Policies**  
**for Lighting and Sound**

October 2014

**Introduction**

The work involved in the rigging of lanterns and speakers and operating the system is not difficult and does not require specialist electrical knowledge. However electricity must be respected and safe procedures always followed. Before working on the equipment a newcomer must receive adequate training from an experienced operator who should satisfy themselves as to the capability of the trainee.

**The main risks are listed below together with recommended procedures of working.**

1. Working at a height
2. Incorrect hanging or rigging of lanterns and speakers
3. Overloading electrical circuits
4. Damaged or worn plugs and connections
5. Inappropriate positioning of lanterns
6. Trailing and loose cables

**Recommended Procedures**

**1. Working at a height**

Most rigging of lanterns requires use of a ladder or stepladders. Where a ladder is used in the auditorium above the seating the operator should ensure it is positioned safely with a firm base on the carpet and the top resting on the lighting bar.

When working on the ladder great care should be taken not to lean too far to access lanterns..

Where the floor is of a hard or shiny material it is recommended that a second person should hold the ladder secure.

If lanterns are to be hung on either of the two side bars in the auditorium then a second person should always hold the ladder given the working height required.

Working on the stage involves a lower working height and safe working can usually be achieved by a single person with a step ladder fully and correctly opened or a single ladder section . Again care must be taken to ensure that the base of the ladder or stepladder is on a firm level surface.

## **2. Incorrect hanging or rigging of lanterns and speakers**

Lanterns should always be hung using the clamp with the screw bolt properly tightened. A safety chain or cable must **always** be fitted to lanterns and secured round the lighting bar. Where a speaker is fitted to a wall bracket the operator must ensure that the bracket is properly secured to the wall and the speaker fixings are sound.

## **3. Overloading electrical circuits**

Care must be taken to avoid overload. The bulbs in most fresnels and floods are 500 watts and those in profile spots are 1000 watts or sometimes 850 watts. Newer low energy bulbs are being introduced but most lanterns are still fitted with the older type of bulb. Channels can be shared with use of a splitter but only two lanterns should be connected to a single channel to avoid the possibility of overload.

## **4. Damaged or worn plugs and connections.**

When rigging either lighting or sound equipment the operator should check that there are no loose or exposed wires and that all connections are secure. Faulty leads should be replaced immediately and not used.

## **5. Inappropriate positioning of lanterns**

Lanterns generate a lot of heat and become very hot during use. When rigging care must be taken to avoid a lantern being hung too close to curtains, props or scenery where they may constitute a fire hazard. Lanterns should not be hung or placed where there is a danger of them coming into contact with a member of the cast, back stage crew or any other individual.

## **6. Trailing or loose cables**

Trips and falls can easily be caused by loose and trailing cables. Frequently long extension cables have to be used and care must be taken to hang or fix these away

from or above areas used by cast or back stage crew. Laying cables on the floor should be avoided wherever possible but if it is necessary then the cable should be secured and covered with a coloured adhesive safety strip.