

Risk Assessment – Lighting Monopole Operations

Notes:

1. The people that might be harmed: BBC Studioworks employees, contractors, public, artists
2. This risk assessment should be used in conjunction with the following BBC Studioworks documents:
 - **Standing Instruction for Elstree Studios – Grid Activities**
 - **Elstree induction for all studios**

HAZARD	CONTROLS
Persons falling from a height	<ul style="list-style-type: none"> • Ultimate responsibility and control to access and working in the grid is with the Gaffer. • At no time should there be any deviation from the grid standing instructions. • Maintain safe working practices in line with BBC SW method statements and Risk assessments. • Gaffers should monitor operation offering instruction to staff under their control. • Trained and competent personnel only to undertake the control of the studio Monopoles. • Only designated hatches should be used to raise or lower Monopoles to or from the grid with the appropriate electrical hoist. These hatches are kept locked at all times and should only be unlocked and used with the express permission of the Operational Compliance Manager. • Operatives should not lean or stretch over the barriers surrounding an open grid hatch.
Crush injuries / Risk of injury from moving objects	<ul style="list-style-type: none"> • Once the Monopole operator has started to raise or lower the Monopoles, he/she must not leave it unattended until the operation / task has been fully completed. • The Monopoles when operated should maintain a safe operational speed, which is controlled by the operator. • Before a Lamp is raised or lowered the operator must ensure it is safe to do so and needs to ensure they have clear line of sight of the Monopole from the grid

<p>Objects falling from a height</p>	<ul style="list-style-type: none"> • Consideration should be taken for the SWL of the individual Monopole. • Each grid has designated anchorage points that only should be used. • The Studio is to be controlled and areas zoned off by physical barriers if required. The area below must be policed. • Trained and competent Personnel only to undertake the rigging of a rigging of lamps to Monopoles. • The bonds on lamps must be in good condition and in date. It is inspected and colour marked every six months. If in doubt this in-date colour can be cross referenced with the coloured tagged system. • Once the lamp is on the Stirrup of the Monopole ensure the bond is secured , with the karabiner firmly screwed shut i.e. Locked Off and the Bonds are only to be clipped onto designated manufactured bonding points on equipment. • Ensure the split pin (also bonded to D/A) passing through lamp spigot is facing the rear of clamp to ensure it cannot work free, both thumbscrews must be hand tightened.
<p>Entanglement with other equipment.</p>	<ul style="list-style-type: none"> • The operator should ensure he has clear line of sight of the Monopole from the grid. • Before a Lamp is raised or lowered the operator must ensure it is safe to do so. • Only after it has been ascertained that there will be no infringement of neighbouring equipment, should monopoles be lowered/raised. • A spotter on the studio floor should be used to clearly communicate verbally, but must ensure that all instructions are clear to the Monopole operator in the grid. • All excess cable must be gathered and coiled, and safely held within the lamp's bond, as to allow free movement but with no drooping cable seen below.
<p>Risk of injury from rigging moving/automated lights onto a Monopole</p>	<ul style="list-style-type: none"> • Ensure the selected Monopole is at a safe working height before lifting the moving light onto Monopole, this activity must always be undertaken by two or more persons. • The height of the Monopole must be adjusted to the appropriate working height, when coat hangers are used in the rig, so the moving light can be rigged safely. Ensure the bond is secured to the coat hanger and the Monopole. • Fix the hanging Clamp to the moving light. Ensure the clamp is fixed into the secure housing on the moving light and locked into position and ensure it cannot work free.

<p>Monopole becoming trapped whilst being moved.</p>	<ul style="list-style-type: none"> • Monopole Secondary Ropes should be disengaged from the Monopole safety cleat before lowering the Monopole to the studio floor to a safe working height. • A second operative working with the Monopole operator should ensure that the safety rope, extension and DMX cables are clipped into the Monopole safety karabiner. On the Monopole Operator lowering the Monopole, the second operative should feed the cables and safety rope through the grid in conjunction with the monopole being lowered to a safe working height so the lamp can be rigged. • On the Lamp being rigged the Monopole operator will instruct the second operative to pull any slack from the Secondary rope and cables as the lamp is being set. The Operative will then engage the Secondary rope to the safety cleat on the Monopole and any excess cables coiled around the monopole head. • Any lengths of slack bond should be taken up to reduce snatching factors.
<p>Faulty and Damaged Lamps</p>	<ul style="list-style-type: none"> • Consider weight loading and power requirements when rigging lamps to monopoles. • All bonds are to be visually inspected for damage i.e. no kinks or damaged strands. • Visually check the lamp for damage e.g. large dent's, bent stirrups, loose parts hanging off, cracked Len's, safety meshes in-tact and cups or pins missing. • When rigging a Lamp to a Monopole using the spigot, ensure that the Monopole spigot Housing is visually inspected for damage ie: cracks, bonded Safety pin and thumbscrew • Always visually check the plug and cable for signs of cracks and damage. There should be no cable cores protruding from cable glands. • Always ensure that the lamp has been electrically tested with a clearly marked label that is currently in date. • Report signs of damage and out of date lights to the Gaffer immediately. • With power turned off, plug the lamp into socket and then ask the Gaffer to flash the lamp to check it is working. • Check the operation of all cup's to ensure the lamp can be freely panned, tilted, spot and flooded and that the power switch correctly works.
<p>Cuts and abrasions from frayed bonds and split pins</p>	<ul style="list-style-type: none"> • All Secondary Ropes are to be visually inspected before use and any that are damaged must be removed from the Grid. • All bonds are to be visually inspected for damage i.e. no kinks or damaged strands.

<p>Manual Handling Injuries</p>	<ul style="list-style-type: none"> • Relevant PPE to be worn, Protective footwear, High Visibility Vests and Gloves as required. • Correct manual handling and lifting techniques to be employed. • Ensure the selected lighting Monopole is at a safe working height before lifting the rigging of basic studio lamps onto Monopole.
<p>Working at heights and within confined spaces</p>	<ul style="list-style-type: none"> • Staff to be consulted to ensure that they are happy to work at heights or in confined spaces. • Always ensure you and others working in the studio grid work in a safe and controlled manner.