Lighting Console Programmers

Reasonable Adjustments - Return to Work

NB: *The working copy of this document comes from Google Docs. For version control, suggestions, comments, editing: Find what's changed in a file - Docs Editors Help*

SURVEY:	FEEDBACK:
Survey Form	Feedback Form

1.1 DOCUMENT PURPOSE

- This document outlines any specific control measures that can be or should be undertaken for the purposes of preventing the spread of infection and cross-contaminating different areas of the film shoot.
- The controls outlined here are not exhaustive, nor will all of them apply to every production situation.
- All of these measures would come secondary to any measures outlined by BECTU in the BFC Coronavirus COVID-19 Guidance document and should also come after any measures implemented by the lighting department in general. Documents linked in Section 3.1 - References should also be taken into consideration.
- The controls outlined here shall be more detailed for the rigging areas of lighting control than the shooting areas, as most of the shooting lighting console programmers work shall come under the scope of unit rules.
- The information in this document is written mainly with Major Motion Pictures in mind. To that end, not all of the information will be relevant to lighting console programmers working in other areas and care should be taken to adapt the information here to the end users needs.
- The information in this document is for general guidance only. The end user will need to produce their own risk assessment which could include any information from this document that is required. Further information should be sought from the Health & Safety Executive if working in the UK or a Health and Safety professional.

1.2 DEFINING THE ROLE

Activities that can be undertaken in an office environment	**Activities that must be undertaken on set (backlot, site, yard)**
Creating show-files for the lighting console.	Preparing the lighting control equipment for installation to include labeling, initial setup and configuration *(can be undertaken in a workshop or prep area).*
Creating dmx patch paperwork.	Installing lighting control systems on a stage/set.
Creating equipment lists.	Commissioning the lighting control system to include configuration, setup.
Drafting lighting plans.	Testing the lighting control system, to include flashing out.
Communicating, archiving, general paperwork and administration.	Maintenance of the lighting control system, replacement of faulty equipment, upgrades where set requirements have changed.
Configuring equipment to an extent using off-line editor software.	Troubleshooting problems that require a physical presence.
Interfacing with the lighting practicals team, gaffers, rental companies.	Adjustment of lighting setups with the DoP and Gaffer
Arranging hire/delivery/returns of equipment with the rental companies.	Running lighting sequences that require the lighting console programmer to be able to see the action and take a visual or audio cue

1.3 SCOPE OF ACTIVITY

- The **rigging lighting console programmer** is usually required in presence across multiple sets/stages/backlots at once, sometimes multiple times per-day to facilitate the commissioning and testing of the lighting control system. This is due to the parallel nature of the work undertaken by the lighting rigging crews.
- Some limited activity could be undertaken from an office, using internet access to remotely connect to a set/stage/backlot to maintain equipment. This would require the physical presence of a competent lighting technician on the set to identify the correct light ID and physically confirm if it is responding to the remote control.
  NB: it would be unsafe to remotely control a light that is not in the direct line of sight of a competent lighting technician due to the large heat and electrical potential of some light sources.

- The **shooting lighting console programmer** is usually attached to the unit, therefore falls under the rules and policies of the unit. Usually only required on one set at once (the shooting set) and will usually be in close contact with the Director of Photography and Gaffer. There is usually one shooting lighting console programmer per shooting unit.

- **Additional shooting lighting console programmers** are sometimes engaged by production to - light up sets for VFX shoots, stunt rehearsals, art-department needs (e.g. it is too dark to adequately carry out work on sets), EPK work, publicity and stills photography, executives/producers/visitors walk-arounds.

- **Lighting Systems Technicians (*data technicians*)** are usually engaged to assist the rigging lighting console programmer where multiple sets/backlots/stages are being worked on in parallel. This role involves preparing, installing, and maintenance of the lighting control system, but often will not involve any direct interaction with the lighting console itself. Any work on the lighting console is usually undertaken in the first instance by the lighting console programmers.

2.1 LIMITING THE RISK OF TRANSMISSION AND INFECTION BY CHANGING THE ROLE

- A reasonable adjustment would be to limit the rigging lighting console programmer to visiting as few sets/stages/backlots as possible, ideally just one. This would require the engagement of further lighting systems technicians in order to continue to facilitate the set up of the lighting on multiple stages in parallel.
- The lighting console programmer should ideally not be required to visit the rental companies in person as most tasks can be carried out by phone/email with the rental company.
- The rental company should arrange all delivery and collection of equipment with the driver remaining in the cab of the vehicle whilst the contents are loaded and unloaded by the relevant stage crew. Alternatively, a member of the stage crew would visit the rental company and remain in the cab whilst the rental staff load/unload.
- Lighting Console Programmers will require more support from suppliers, distributors and manufacturers in order to handle faults and unexpected equipment conditions effectively. This is to avoid the need where possible for equipment to be swapped out or worse having to have suppliers or manufacturers visit the set. This could be facilitated by having additional lighting console programmers or systems technicians to deal with fault finding and maintenance.
- Arrangements should be made alongside the BECTU document for the lighting console programmers to have suitable rest breaks away from the set with suitable facilities. The standards for facilities and working environment should never fall below those defined by the HSE in: Have the right workplace facilities
- The lighting rental company should arrange full hygienic cleaning of all display and input surfaces on equipment prior to the equipment being dispatched.
- Agreements should be put in place where possible for rental companies to deliver the equipment, 24/48/72hours in advance of the rental commencing in order for the equipment to be inspected for cleanliness and allow a period where the equipment is not touched.
- Where possible, central storage of lighting control equipment for a production should be stored and managed with the general lighting equipment. A member of the lighting team could be assigned the role of “storeperson” to monitor and inventory equipment.
- For the returns process, an agreement should be in place where the equipment is left in a “derigged” state but remains uncollected for 24/48/72hours before return to the rental company again to allow a quarantine period.
- Where possible, the area for preparing the lighting control equipment prior to rigging should be set aside, ideally a closed off workshop or portacabin to allow the equipment to be prepared in isolation with no cross-contamination of work areas.
- Where possible, there should be a defined area of the set where the lighting console and the programmer can work from allowing for government social distancing

regulations from the rest of the crew. The use of a physical barrier should be considered individually as part of the Risk Assessment. . The area should be as near to the set and video village as possible to enable the lighting console programmer to see the DoP and Gaffer as needed.

- Where there are lighting adjustments that can be made that do not require the physical presence of the lighting console programmer on set, this should be the default position. Lighting adjustments could be made over the radio, by headset comms or via a video monitor.
- Where possible, a competent member of the lighting team should be assigned exclusively on the shooting team to assist the lighting console programmer in any lighting control, networking, datacomms work. Having this person exclusively available to this task would help to minimise contact points in the workflow.

2.2 CHANGING WORK PATTERNS

The potential change in working patterns needs to be considered when crewing for a production Keeping in mind; staggered work hours, keeping to one workplace at time, physically meeting as few people as possible to reduce transmission chains.

- Where possible each workplace should be assigned an independent programmer or systems tech
- Ideally each programmer would start at the beginning of the week and stay in their workplace for the entire week (or duration of rig) in order to avoid cross-contamination of work areas.
- All work shift patterns should be in line with patterns set out by production and HODs.
- Should Lighting Systems Technicians be used for rigging in place of a main rigging lighting console programmer, there will always come a point when the system will need to be tested by the programmer. The Lighting Systems Technicians are not qualified or competent in the use of the lighting console.
- Where possible any handover should be done via video call to reduce contact

Current potential baseline without adjustments

<table>
<tr><th></th><th>Monday</th><th>Tuesday</th><th>Wednesday</th><th>Thursday</th><th>Friday</th></tr>
<tr><td>Rigging Desk Op 1</td><td>Office Work, Stage 1, Backlot</td><td>Office Work, Stage 1, Backlot</td><td>Stage 2, Stage 3, Visit rentals</td><td>Stage 2, Stage 3</td><td>Stage 1, Stage 3</td></tr>
<tr><td>Rigging Desk Op 2 (or Data Tech 1)</td><td colspan="3">Prep/Install Stage 1 with Gang 1</td><td colspan="2">Prep/Install Stage 2 & 3 with Gang 2 & 3</td></tr>
</table>

2.3 WORKING FROM AN OFFICE ENVIRONMENT

- Tasks mentioned in the first column of section 1.3 can be undertaken from an office.
- The usual established method is for the rigging lighting console programmer to share an office container with the best boy, rigging gaffer or head of practical lighting.
- As almost all of these tasks take place on laptop, computer or phone, it is possible these tasks could be undertaken at another place so as to minimise office contact with other persons, where such contact may create additional transmission chains. *(e.g. programmer who has been on stage 1 and 2 meets the best boy, who then visits the unit and production office.)*
- In order to enable good quality, efficient and effective office working the following methods and tools should be considered:
    - Creating a lighting department unified communication and collaboration platform group to enable communications between team members.
    - Daily check ins at the start of the work day with the lighting console programmers, gaffers, best boys to discuss the tasks of the day.
    - Daily run-down meetings at the close of business to discuss any upcoming activity.
    - Potential for production to monitor time keeping by logging on and off of the system.
    - Production office to have access to the online team and any cloud synchronisation software to monitor progress on a drop-in basis.
    - Remote printing support from home to the studio so that the programmer can print off plans, labels, documents for other team members on site.
    - A radio communications app or other communications app to enable team members at sets/stages to quickly communicate with a team member working remotely. (Current mobile phone calling capabilities may already be sufficient for this in some studios.)
    - For official production paperwork such as timesheets, schedules, etc, the lighting console programmer should be using whichever electronic paperwork system is selected by the production office, and adhere to all existing rules surrounding transfer of such documents.

2.4 CONTINUITY OF LIGHTING CONTROL OPERATIONS

- The Lighting Console Programmer is often the only person on set who is fully capable of discharging the duties of programming and operating the lighting control system.
- Should the Lighting Console programmer become ill at work, government guidance clearly indicates that the employee should notify their employer and immediately go home.
- A plan for the management of any unforeseen sickness or absence should be discussed and agreed prior to starting principle photography
- Steps could include: Retaining the Rigging Lighting Console Programmer at the studio/site to immediately step in to the shooting unit should this be required.
- Retaining an additional Lighting Console Programmer to cover any unexpected sickness or absence.
- Putting into place plans with the Lighting team to ensure that a basic lighting state can be recalled on the lighting control system at the start of each day should the Lighting Console Programmer be unable to work. This would need to include basic training in start-up, shutdown and basic navigation procedures.
- *References: ACAS: If someone at work might have coronavirus*

2.5 MAINTENANCE OF EQUIPMENT TO ENSURE HYGIENE

- In lighting control, the following equipment should be considered “high-touch” areas:
    - Lighting Consoles
    - Tablet Computers
    - Mobile phone devices *(where used for triggering lighting effects)*
    - Mobile fader/button devices
    - Touchscreen monitors
    - Nodes, Switches, Buffers (control equipment) with touchscreens, buttons or dials
    - Control panels on dimmer racks
    - Control panels on floor (unit) lights
    - Main Electrical Isolators, found on the stage or in dimmer rooms.
    - Radios / Communications Packs / Converts / Ear Pieces

- It shall be the responsibility of the lighting control programmers to clean their equipment daily, before and after use. Direction should be taken from both manufacturer instructions and departmental RAMS on safe, hygienic cleaning, but in general minimum 90% isopropyl wipes are sufficient to clean most of the devices mentioned in the list.
- Lighting console programmers should consider how they will keep evidence that their own equipment has been subjected to a cleaning regime. All documentation such as material safety data sheets and manufacturer instructions should be retained as evidence.
- The lighting console programmers should liaise with either the Best Boy or Rigging Supervisor/Gaffer to ensure a sufficient stock of wipes to be present with every set of lighting control equipment.
- Microfiber cloths, dry paint brushes and air dusters should also be acquired for every set of control equipment to assist in cleaning. Acquisition of a departmental vacuum cleaner should be considered for removing dust, particles from equipment. This may be preferable to use of an air duster.
- When dusting is being undertaken, appropriate control measures should be put into place in line with departmental risk assessments.
- At all times, cleaning of specific equipment should be carried out in accordance with manufacturer's instructions to avoid damage. Time should be set aside from normal shooting, rigging, lighting setup, prelight times to allow the cleaning to take place. Details should be worked out with the main BFC document on procedures for cleaning calls.
- Food and drink should not be consumed at the lighting console, or stored in the lighting console area, due to the risk of food contaminating the equipment

- Where possible, the Lighting Console Programmer should be assigned a single, individual radio charger to place at their lighting workstation. This will eliminate a contact point when charging/undocking a radio on a daily basis.
- Only competent lighting control team members shall be allowed to interact with the lighting control equipment.
- Where specific devices are handed to the gaffer or the director of photography for the purposes of triggering lighting effects, these devices should be cleaned before and after changing persons. If the use of devices becomes established practice for the entire shoot then ideally the gaffer, the director of photography (and/or their assistants) should personally undertake to clean the equipment daily rather than handing it back and forth.
- Where possible and practicable, the lighting console programmers should arrange to make use of personal equipment such as tablet computers, testers, mobile triggers, laptops and control surfaces. This could either be in the form of rental of their own equipment or taking general ownership and responsibility for rental company equipment the first time it comes out on hire. Equipment should be labeled clearly with personal name, phone number/email address and position to identify it to others.

2.6 MAINTENANCE OF TECHNICAL AREAS

- The Dimmer Room and Electrical Switch rooms shall continue to be strictly limited access only for qualified and competent persons.
- Due to the limited space available in these rooms, only two persons at a time should be allowed in. Lone working and electrical safety considerations should always be taken into account. Provision should be made to allow the Lighting Console Programmer and/or Systems Technician to access the Dimmer and Switch rooms quickly in the event of a problem that is stopping shooting. To this end, Dimmer and Switch rooms should not be used for general storage and convenience areas.

3.1 FOOTNOTES AND REFERENCES

- Production Equipment Rental Group: PERG Safe Return to Work Guidelines, public review *(Last retrieved: 01/06/2020)*
- Event Safety Alliance: ESA Reopening Guide *(Last retrieved: 01/06/2020)*
- BFC Coronavirus COVID-19 Guidance
- HSE: Coronavirus: latest information and advice *(Last retrieved: 01/06/2020)*
- Pinewood MBS Coronavirus Operating Protocols: Covid-19-Operating-Protocols-V1.2.pdf *(Last retrieved: 06/06/2020)*
- BECTU Sparks Branch: Sparks Branch - Covid-19 *(Last retrieved: 01/07/2020)*
- Guidance for Gaffers & Lighting HODs on New Working Practices Under COVID-19 Restrictions *(Last retrieved: 01/07/2020)*
- *Screenskills:* Coronavirus basic awareness on production training *(Last retrieved: 17/07/2020)*

APPENDIX 1 REMOTE CONTROL OF LIGHTING SYSTEMS

This section is only to be included on a per-production basis where it is felt to be appropriate by the lighting console programmer.

- “Remote” in this case is defined as controlling lights whilst not physically present on the set/stage/backlot.
- As this process potentially introduces some hazardous and un-managed circumstances, specific rules would have to be put into place to manage and limit the use of remote controlling the lighting fixtures.
- Proposed controls:
    - Lights can only be remotely controlled if a competent lighting technician is physically present on the set/stage/backlot and has physical line-of-sight of the lighting fixtures that need to be controlled.
    - Remote control can only take place where there is a good stable voice communications link in place.
    - As the competent technician on site who is calling for the remote control of the lights to be initiated, this person would bear overall and final responsibility for the electrical safety and fire hazard of turning on lighting equipment.
    - All normal lighting and electrical risk assessments would apply first.
    - The remote control of lights should only be considered as a last resort where a lighting console programmer is not available to the set/stage.
    - As physical line-of-sight would need to be maintained to watch for fire/electrical and other hazards, the remote control could only be used to turn on/off a few lights at a time at most for the purposes of verifying the equipment is under control correctly, focusing, colouring, or otherwise limited verification of the lighting setup.
    - Any lights under remote control must never be left unattended for any length of time.
- Remote control of lighting consoles and lighting control systems behind a secure firewall or virtual private network to enable some limited tasks on stages to be undertaken remotely.
- As opening up the lighting control system to remote control to any extent introduces a potential IT/cybersecurity vulnerability to the production and its assets, assistance would be required from production or studio IT to create and verify secure Virtual Private Networks and “VLANS” prior to any remote control scenarios being possible.