



Hazards and Controls by NEIL MAC LTD


Drama production risk assessment generic

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CONTENTS



Page	
1	PROJECT DETAILS
2	METHOD
3 to 4	RISK PROFILE SHEET
5 to 100	HAZARDS AND CONTROLS

PROJECT DETAILS

CLIENT DETAILS	FREEDOM SCRIPTED ENTERTAINMENT LTD MIKE ELLEN MANGING DIRECTOR 126-128 Baltic Chambers 50 Wellington Street Glasgow G2 6HJ
ASSESSMENT VALIDITY	ASSESSMENT DATE OCTOBER 2024 Valid until October 2025.
SUMMARY	<p>This assessment outlines generic controls for the typical hazards that will commonly be found in drama production and in studios and on locations, and through each phase of production from pre-planning to post-production.</p> <p>Where applicable this assessment lists the relevant industry standards or guidance that can be referenced to make further specific risk assessments of actual production work activities as may be required.</p> <p>This document is not intended to list every possible control or good practice for every activity or circumstance, or to be a step-by-step guide to filming activities. Further specific risk assessment will be required to be made by production teams to consider specific circumstances.</p> <p>The people who carry out the work should be competent to meet the standards and controls listed. Proof of competence in some cases will require formal training and/or qualifications and demonstratable experience - this will most likely be true for heads of department and supervisors or specialist technical crafts.</p>
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METHOD

We use a 5x5 matrix to score and prioritise risk.

 INCREASING CONSEQUENCE	Fatal, Perm injury	5	5	10	15	20	25
	Major over 7 days	4	4	8	12	16	20
	Moderate up to 7 days	3	3	6	9	12	15
	minor	2	2	4	6	8	10
	insignificant	1	1	3	4	5	
			1	2	3	4	5
			very not likely	not likely	fairly likely	likely	very likely
			INCREASING LIKELIHOOD 				

20-25	Stop Stop activity and make immediate improvements
8-16	Take action Look to improve within a specified timescale
1-6	Monitor Ensure controls are maintained and reviewed

The RISK PROFILE SHEET on page 3 to 4 gives each hazard a number ID. Use this to find the control details listed from page 4 onwards.

Each hazard gets a RESIDUAL RISK score (RR) **as if the controls listed in this document are put into place by the production team in good time in advance of the need.** The RR shown is calculated as likelihood x consequence. Who could be harmed is the cast and crew, contributors and other people on location or site.

RISK PROFILE SHEET

ID	HAZARD	RR
01	Safeguarding children and vulnerable groups	4
02	People with access requirements	3
03	Pregnant/new mothers	4
04	Stress, psychological harm and wellbeing	4
05	Scheduling production work	5
06	Display screen equipment in the office and at home	4
07	Management arrangements for control, coordination and change	5
08	Plans for emergency, first aid and fire	5
09	Contractor selection	5
10	Design and construction and CDM	5
11	Electrical systems and production lighting	5
12	Work at height or overhead	5
13	Temporary structures	5
14	Lifting Operations	5
15	Manual and mechanical handling	4
16	Noise as audio	5
17	Driving vehicles	5
18	Working near roads and vehicles or plant and machinery	5
19	Asbestos	5
20	Slips, trips and falls	3
21	Location scouting and lone working	5
22	Unit base, food catering and welfare facilities	5
23	Weather and lightning strike	4
24	Public attention	4
25	Vermin, pests and midges	4
26	Animals in production	4
27	Control of substances hazardous to health	4
28	Cast eating in script action	4
29	Weapons	10
30	Stunts / driving / horse riding	10
31	Fight scenes	8
32	SFX	8
33	Camera handheld or Steadicam	3
34	Camera crane	3
35	Camera tracks	3
36	Camera ladder pod	3
37	Camera drones – aerial filming (UAV)	3
38	Camera helicopters	3
39	Lighting – helium balloons	3
40	Vehicles for tracking	5
41	Vehicles - low loader	5
42	Vehicles - tracking bike and sidecar	5

43	Vehicles quad tracking bike	5
44	Liquid petroleum gas	5
45	Make-up and hair	3
46	Nighttime working	4

1. Safeguarding children and vulnerable groups

Activity		Programme making activities involving children and vulnerable groups.
Hazard		Children may suffer harm or abuse by exposure to adults or other children with criminal intentions or who do not conduct themselves appropriately or display bullying behaviours. Children are naturally exposed to a greater level of risk because they are not always able yet because of their lack of experience to identify and avoid hazards for themselves. Children are naturally inquisitive and may take a greater level of risk than an adult would in the same circumstances. Children are generally less aware than adults of the potential dangers caused by the surroundings, activities and people, and are generally less able than adults to communicate their needs, rights and welfare requirements to ensure their protection.
Controls	1	All key production team will understand the contents of the Child Protection policy and who the child protection nominated manager is, and how to contact them.
	2	All key production team will receive specific training for Safeguarding children and vulnerable people.
	3	Anyone working directly with children or vulnerable people will have been approved by the Protecting Vulnerable Groups Disclosure Scotland process.
	4	All crew who will never be left alone with a child or vulnerable person will complete a personal disclosure.
	5	A child performance license will be obtained as required.
	6	Children will always be supervised by a parent or licensed chaperone.
	7	The hours that a child spend on set will be strictly managed in line with legal requirements and always in the immediate interests of the welfare of the child.
	8	A specific risk-benefit assessment of the activity involving a child will always be made. The assessment will be risk aware and not risk averse to take account that minimising risk should not prevent children enjoying a healthy range of opportunities. A useful template can be found at Play Safety Forum https://playsafetyforum.wordpress.com/resources/
	9	Local arrangements will be made to ensure that a child has supervised welfare and toilet facilities separate from adults.
	10	Where required, facilities for education will be provided.
	11	Further guidance at Creative Scotland: https://www.creativescotland.com/binaries/content/assets/creative-scotland/resources-and-publications/guides-and-toolkits/creating-safety/creating-safety-2019-final-links-update.pdf

2. People with access requirements

Activity		Programme making activities involving children and vulnerable people.
Hazard		Neglect of the physical, psychological and practical needs of disabled cast and crew

		can lead to unsafe conditions potentially causing physical or psychological harm.
Controls	1	An Access Coordinator will be appointed at key times to work with disabled talent and crew and to support disabled professionals to work well and safely, with dignity.
	2	Personal emergency evacuation plans will be made as necessary considering the changing conditions at all places of work including studios and locations.
	3	Everyone will receive awareness training in line with good industry practice. Further guidance at Screenskills: https://www.screenskills.com/media/8394/5-as-training-handout.pdf

3. Pregnant/new mothers

Activity		Pregnant/new mothers
Hazard		Pregnant women and new mothers may be more vulnerable to stress and fatigue. Substances the mother is exposed to may harm the fetus or newborn baby through breast milk.
Controls	1	No pregnant or new mother will be allowed to be involved in any activity where they are exposed to high levels of stress or significant manual handling work.
	2	They will not be exposed to harmful substances, either by dusts, vapours or fumes. In particular they must not be exposed to any substance where the labels and safety data sheets carry the codes R46, R61, R63.
	3	They will not be allowed to work in any situation where the risk of infection is increased due to their condition, E.g. working close to lambing sheep.
	4	They will not be subjected to high temperatures especially not in excess of 38°C.
	5	They will not be exposed to excessive vibration.
	6	They will be given adequate rest breaks, in a suitable area, if they are suffering from tiredness or stress.

4. Stress, psychological harm and wellbeing

Activity		Potentially demanding work, timelines and programme story
Hazard		Stress is a reaction to events or experiences in someone's home life, work life or a combination of both. Stress can lead to high blood pressure, heart disease, stroke, obesity and diabetes. Work-related stress can aggravate an existing mental health problem, making it more difficult to control. Common mental health problems can have a single cause outside work, for example bereavement, divorce, postnatal depression, a medical condition or a family history of the problem. Programme content and making could potentially cause psychological harm to adults and children.
Controls	1	Take an organisational level approach to managing the risk of stress.
	2	Understands the importance of the line manager role in team happiness and selects and promotes manager who understand the importance of listening, supportive relationships

		and regular conversations with their teams.
	3	Mental health and well-being awareness training and information is given. Mental health first aiders are provided at key times if not possible always.
	4	Flexible working arrangements are offered when operationally feasible, work from home is promoted when possible, and teams are encouraged to find a good work-life balance that suits their personal choices and the needs of the core business.
	5	Partner organisations specialising in mental health and wellbeing and occupational health in the workplace provide or teams with free to the user support and counselling services.
	6	Work is organised by considering the impact upon teams in accordance with the HSE management standards for Demands, Control, Support, Relationships, Role and Change.
	7	Care will be taken never to introduce themes or topics that could cause distress or anxiety to children in line with the safeguarding controls and risk assessment on a project-by-project basis. Where story or topics have the potential to cause stress to adults this will be done by offering consultation and support.

5. Scheduling production work

Activity		Organising people's routines and working hours in production work
Hazard		Tiredness can lead to unsafe condition in the workplace and on the roads. Unrealistic demands upon time workload can lead to stress, or lead to speeding on the roads.
Controls	1	All work will be scheduled inside the maximum requirements of the Working Time Directive, or applicable driver hours rules for HGV drivers.
	2	Teams will be consulted on occasions when work may last more than 11 hours in a day and supporting arrangements for team welfare and wellbeing will be considered according to the circumstances.
	3	Scheduling will be mindful of any driving shifts at the end of long days or long sequences of intense work and will consider how to avoid the circumstance, for example overnight accommodation, public travel arrangements, or being driven by someone else who is working a different pattern of hours.
	4	Complex sequencing of work will be done in consultation with the people who understand the risks in the work or who have the knowledge to plan the work.

6. Display screen equipment in the office and at home

Activity		Using computers, screen, laptops, workstations and mobile devices
Hazard		Poor posture can lead to upper limb disorders, pain in the neck, arms, shoulders, back, wrists and hands and fatigue. Glare or poor lighting can cause eye strain.
Controls	1	Teams will receive DSE awareness training and information to enable them to make their own workstation assessments in the office and at home, and to make good

		choices about how they organise their activities to avoid fatigue and pain.
		Records will be kept of DSE assessments for
	2	When necessary, a qualified DSE assessor and/or occupational health professional may be consulted to provide qualified advice and guidance on measures and solutions.
	3	A free eye test for DSW work will be provided and any necessary spectacles for those who request for use of screen equipment.
	4	Workstations will be provide that meet the requirements of the Display Screen Equipment Regulations.

7. Management arrangements for control, coordination and change

Activity		Filming activity in locations
Hazard		Lack of control and coordination leading to unsafe conditions
Controls	1	The person in control of coordinating safety in filming activity between Heads of Department on a day-to-day basis is the 1 st Assistant Director. Information and instruction will be communicated to the cast and crew as required, including safety briefs given at the start of a day or before an event as required.
	2	Any safety concerns that cannot be resolved by the crew on a day-to-day basis will be escalated to the Producers for their review and direction.
	3	Changes to plans can be made on the day if the relevant competent people are given time and resources to consider the options, and to record a dynamic risk assessment by video or email as soon as it is reasonable to do so, ideally before the change.

8. Plans for emergency, first aid and fire

Activity		Emergencies during film activity
Hazard		Potential long-time durations for blue light services and first responders to arrive
Controls	1	The production should provide additional fire extinguishers suitable for the type of fire hazard that they introduce to the premises or location – typically for class A and B fires. This is usually CO2 for electrical fires or flammable liquid fires, and Foam for paper wood and furniture. Existing fire extinguishers in premises are generally only there to protect the existing premises and should not be used as a substitute for providing extinguishers for the set and film equipment.
	2	In studios or locations, consult the location owner for advice on their emergency evacuation procedures and advise the film team what the emergency signal will sound like and where to assemble.
	3	If an emergency evacuation does happen, at the assembly point, each head of department shall account for the number of people working with them that day, and will inform the 1 st AD, who will in turn inform premises management if anyone is missing.

	4	Teams will be given fire safety awareness training and information. Only trained people should attempt to use a fire extinguisher. A fire risk assessment will be made where the intention is to store flammable materials for example in make-up departments, construction workshops, cleaning storage cupboards and food preparation involving LPG.
	5	If using haze or tungsten lamps for lighting indoors it will likely be necessary to isolate local smoke detectors in the filming area to avoid false alarms.
	6	The fast response of ambulance service cannot be relied upon. Ideally someone who has completed at least a 3-day first aid course should always be with the film crew with a suitably stocked first aid kit. It may be a potential benefit to carry a defibrillator to be operated by a trained person, to locations where it will likely take ambulance service longer to respond and to find the film team. For higher risk work like stunts, it is advisable to hire a stand-by paramedic. For construction work and work with children it is advisable to hire a stand-by nurse or paramedic. Welfare facilities should be provided for medics to carry out any treatment in reasonable privacy and good shelter from the weather.
	7	Any incident or accidents must be reported to management and investigated to determine route cause and learnings.
	8	Where required by RIDDOR (The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) the HSE (Health and Safety Executive) will be notified.

9. Contractor selection

Activity		Selection and engagement of contractors
Hazard		Unsafe practices leading to accidents
Controls	1	Third party contractors must have a minimum £2 million pounds valid public liability insurance.
	2	Contractors will be vetted for competence using a set of safety competence and performance measurement criteria by a competent person.
	3	Contractors will be expected to mirror good environmental sustainability practices similar to the company sustainability policy and plan.
	4	Management arrangements will be put in place on a project-by-project basis to review risk assessments and method statements, and to ensure control, communication, cooperation, and competence, and work coordination and separation.

10. Design and construction and CDM duty holders

Activity		Management arrangements, control, cooperation and communication
Hazard		Poor organisation leading to unsafe conditions. Non-qualified design of high risk work, lack of planning information leading to unsafe practice. Fire spread via materials, asbestos. Dust and fume inhalation, amputations and lacerations, chemical burns, eye injury, fire and explosion, electrocution. Escape routes blocked or restricted in emergency.

Controls	1	Producer is Client and appoints Principal Designer and Principal Contractor. Management in accordance with Construction (Design and Management) Regulations 2015. http://www.hse.gov.uk/pubns/books/l153.htm
	2	A construction phase plan will be made, and a safety file will be kept. Projects will be notified to the HSE where applicable. A management system and specific management arrangements will be put in place through the different phases of the project.
	3	Designs will eliminate or reduce hazards to an acceptable level considering the full life cycle of the set, and considering how materials may be re-used or recycled sustainably.
	4	When unsure about a design layout or dimension specification for a temporary set, if you apply the information in the building standard technical handbooks non domestic 2023, you will likely be doing enough: https://www.gov.scot/publications/building-standards-technical-handbook-2023-non-domestic/
	5	For temporary seat layouts work to the principles of BS 9999:2008 Code Of Practice For Fire Safety In The Design, Use and Management of Buildings. Annex D, Recommendation for Theatres, Cinemas and Similar Venues. For example, Gangway widths at 1100mm or 900mm if used by 60 person or fewer. No more than 12 seats in a row. Seating should be secured to prevent obstructions. Temporary seating for groups over 50 people should be secured in banks of at least 4 seats. For over 250 people, seating near exits and gangways should be fixed to the floor.
	6	The designer will assess the risks of any scenery hazards and ensure adequate controls are put in place such as: Removal of hazards where possible. Replacement of pointed or sharp edges with soft materials such as rubber. Heavy parts of scenery able to divide into smaller lighter sections for handling. Heavy scenery fitted with wheels, handles/handholds to assist maneuvering. Provision of non-slip surfaces. Hazard warning signs posted on scenery where appropriate.
	7	Timber, hardboard or plywood treated by a process of impregnation which meets Class 1 (BS 476-7) or Class C-s3d2 (BS EN 13501-1); or timber framing of minimum 22mm nominal thickness: or MDF, plywood or chipboard not less than 18mm thick. Softwood battens and frames need not to be made fire resisting if the cross-section area exceeds 25 x 25mm.
	8	Fibreglass: BS 476, Part 7, Class 1
	9	Drapes, Curtains and Window Blinds: BS 5867: 2008, BS EN 13773: 2003
	10	Carpets: BS 4790 (hot nut test)
	11	Beds, mattresses etc: BS 6807: 2006 / BS 7177: 2008
	12	Upholstered Furniture / Seating: BS 7176: 2006 (medium hazard category)
	13	BS 5852: 2006 Furniture and Furnishing: Fire Safety Regulations 1988 as amended 1989 / 1993
	14	Sports Mats / Mats / Landing Areas: BS 1892: 2003
	15	Paints: Fire retardant and water based

	16	Adhesives: Water based
	17	Bonding Resins: Fire retardant
	18	Ensure that salvaged props do not contain asbestos.
	19	Equipment to be operated by competent persons E.g. trade Joiner with CICS card.
	20	Suitable PPE must be worn as required. Masks must have face fit test made.
	21	LEV extraction to be used when activities produce dust, fumes and mists.

11. Electrical systems and production lighting

Activity		Designing and rigging temporary electrical systems
Hazard		Electric shock, fire, electrical burns, HMI lamp radiation burns, strobe light related seizures, laser light related eye damage, musculoskeletal injuries, trips and falls, falls from height, equipment falling from height, wind forces blowing equipment over or away. Activation of fire detection systems.
Controls	1	Temporary electrical systems are in accordance with BS 7909: 2023 Code of practice for temporary electrical systems for entertainment and related purposes. https://knowledge.bsigroup.com/products/temporary-electrical-systems-for-entertainment-and-related-purposes-code-of-practice?version=tracked
	2	Unless otherwise arranged, event manager will be the producer, senior person responsible and the skilled person.
	3	Skilled person makes design, inspection and test of the electrical system before energising and has the competence to make assessment of the complexity of the system.
	4	Energised systems must be supervised by a person competent to act in an emergency or change.
	5	Non-electricians can work as part of the lighting team under the supervision of an electrician.
	6	A specific inspection and test of a new installation must be made each location.
	7	Fixed wiring systems should only be altered with the owner's consent and by JIB level Approved Electricians or similar, and to BS7671 standards.
	8	Electrical equipment will be inspected and tested on a regular basis in line with ITEE IET 5 th Edition Code of Practice (used to be called PAT testing).
	9	Lighting will be managed by the Gaffer and experienced operators who will assess risks at each location and implement appropriate controls, including:
	10	Ensuring lights are not placed too close to combustible materials, substances, or vapours.
	11	Taking care to run cables in a manner that avoids creating trip hazards on walkways.

	12	Implementing measures to prevent lighting or reflecting screen stands from being knocked over by securing, weighting down, or tying off as needed.
	13	Positioning lighting heads over the protruding leg of a stand for enhanced stability.
	14	Leaving slack in cables below the stand to prevent the stand from being pulled over if tugged.
	15	Where possible, placing lamps out of reach of children.
	16	Taking steps to prevent unauthorized personnel from accessing the set.
	17	Keeping fire extinguishers readily available in case of a fire.
	18	Positioning outdoor lights to avoid glare that could distract drivers.
	19	Avoiding placement of lights near activated smoke detectors.
	20	Ensuring lights are not positioned near sprinkler head valves.

12. Work at height or overhead

Activity		Ladders, zip up towers, scaffolds, MEWPS
Hazard		Falls from height, equipment falling from height, access equipment overload and overturn, electrocution, overhead power lines, falls from height, equipment falling from height, collision with pedestrians and buildings, fumes from vehicle exhaust or battery charging, crush in machinery moving parts, bucket tipping over, soft or uneven ground, wind.
Controls	1	Ladders and step ladders in accordance with Ladder Association LA455 https://ladderassociation.org.uk/la455/
	2	Zip up towers: in accordance with practice at http://www.hse.gov.uk/construction/safetytopics/scaffold.htm Erected by Prefabricated Access Suppliers and Manufacturers Association (PASMA) training card holder or similar. http://www.pasma.co.uk/
	3	Scaffolds - see temporary structures.
	4	Machine or equipment will have a valid LOLER examination certificate.
	5	Machine choice will take account of any floor weight loading restrictions and surface type, and will be electrically powered if used indoors.
	6	MEWPS will be operated by trained persons with correct category of training for the specific machine e.g. IPAF ticket. http://www.ipaf.org/en/training/categories/
	7	Operator pre-use maintenance checks will be carried out.
	8	Arrangements are put in place for emergency E.g. hoist failure or falls in harness.
	9	Work areas are separated and coordinated with others in the work vicinity.
	10	Manufacturer operating instructions consulted for the maximum wind speed that the

		machine can be operated in and measurements taken.
	11	Wear a fall restraint lanyard in MEWPS attached to a suitable anchor point.
	12	Skylights will be blacked out from the inside where possible to avoid the risk of falling through from above, otherwise fall prevention systems will be used.
	13	All tools taken to height secured by a lanyard.

13. Temporary structures

Activity		Programme making activities involving children and vulnerable people.
Hazard		Temporary Structures: stages, rostra, raised floors
Controls	1	Collapse, overturn, falls from height
	2	Preferably build significant structures from prefabricated lightweight metal systems where specifications are known for each component part e.g. deck systems.
	3	For significant wooden structures use principles of Eurocode 5, TRADA span tables. https://bookshop.bmtrada.com/bookshop/view/b1aa87dc-41a5-4060-bf69-d107c79144f9/4th Edition of Eurocode 5 Span tables WITH FREE WIS on softwood sizes
	4	Any non-standard scaffold, structure or similar will be designed by a qualified designer. Designs submitted to Studio Operations Manager for record.
	5	Non basic scaffolds require qualified design in accordance with NASC Technical guidance TG20. https://nasc.org.uk/information/tg2021/
	6	Scaffolders should hold CISRS card or similar. http://cisrs.org.uk/ Built by experienced NVQ Level 2 Scaffolders. Supervision by an Advanced Scaffolders NVQ Level 3.
	7	Formally handed over by a qualified person to the user, and any loading restrictions clearly communicated to all persons who need to know by the user. Warning signs must be put on incomplete scaffolds or other measures to prevent unauthorised use.

14. Lifting operations

Activity		Overhead work, rigging, flying, studio hoists, camera jibs and cranes
Hazard		Falls from height, overload leading to structural collapse of building, overload of lifting equipment, equipment falling from height, poor operation or restricted sight lines leading to collision of overhead sets, lighting and technical equipment. Wrong selection of lifting accessories leading to equipment falling from height.
Controls	1	Work in accordance with Lifting Operations and Lifting Equipment Regulations 1998 (LOLER). http://www.hse.gov.uk/pubns/books/l113.htm
	2	Work in accordance with BS 7906-1: 2005; Use of lifting equipment for performance, broadcast and similar applications.

	3	Select competent persons for specific task. Preferably accredited by Joint Industry Grading Scheme (JIGS) www.jigs.org.uk or similar.
	4	Any overhead equipment must have a safety bond or secondary suspension to prevent equipment falling, of approved type, suitable for task, unless otherwise qualified by a competent person.
	5	All lifting operations will be designed to a safety factor of 8:1 unless specific risk assessment is made by a qualified person.
	6	Only fire-retardant materials will be used to suspend e.g. no rope.
	7	Jibs and cranes should be accompanied by a valid LOLER or PUWER certificate.

15. Manual and mechanical handling

Activity		Moving and lifting materials and equipment
Hazard		Musculoskeletal injuries, cuts, trips and falls caused by sets that are difficult to move, assemble, transport and store.
Controls	1	Teams receive manual handling training in accordance with HSE, L23; Manual Handling Regulations Guidance. http://www.hse.gov.uk/pubns/books/l23.htm
	2	Those in charge of manual handling operations will assess the work to be carried out and apply safe procedures such as reducing items to smaller loads and the provision of trolleys, adequate number of people to reduce risk to an acceptable level.
	3	Vehicles will be used to take heavy loads as close to locations as possible.
	4	Where available and permitted, lifts/elevators and hoists will be used.
	5	Persons who are not trained will not be asked to handle any loads that may present a significant risk of injury due to their lack of training, physical fitness.
	6	Fork-lift or manitou operators have valid licence for machine type. Only authorised persons.

16. Noise as audio

Activity		Audio playback for scene timing and atmosphere, listening to programme sound
Hazard		High sound pressure levels of noise over a short period of time sudden very high levels can result in temporary hearing threshold shift or permanent damage like tinnitus.
Controls	1	Specific assessment will be made of the activity to ensure that noise exposure limit values do not exceed a daily or weekly personal noise exposure of 87 dB (A-weighted) or a peak sound pressure of 140 dB (C-weighted). Personal hearing protection will be mandatory when the upper exposure values are reached of a daily or weekly personal noise exposure of 85 dB (A-weighted); and

		a peak sound pressure of 137 dB (C-weighted). Personal hearing protection will be offered when the lower exposure values are reached of a daily or weekly personal noise exposure of 80 dB (A-weighted); and a peak sound pressure of 135 dB (C-weighted).
	2	Young children typically have more sensitivity to noise than adults. Personal protection is therefore advisable as mandatory at noise levels of 80 dB (A-weighted); and a peak sound pressure of 135 dB (C-weighted).
	3	All headphones used by cast and crew will be limited to 88dBA unless a specific risk assessment is made considering the actual sound pressure levels and the time duration of exposure.
	4	People who may be routinely exposed to noise levels at or above upper exposure values will undertake health surveillance.
	5	Everyone will be given noise awareness training or information.
		Further guidance at <i>Sound advice: Control of noise at work in music and entertainment</i> https://www.hse.gov.uk/pubns/books/hsg260.htm

17. Driving vehicles

Activity		Driving vehicles during various production work
Hazard		Collisions with other vehicles, people and objects leading to serious injury or death, through driver tiredness or distraction, drink or drug driving, speeding, and poor roadworthiness of the vehicle, or lack of understanding of the vehicle functions.
Controls	1	Driver will have a valid driving licence for the category of the vehicle, and this will be periodically checked for any endorsements to meet insurance requirements, for example anyone over 6 points on the licence will be referred to the insurer.
	2	Driving licences will be checked for validity any conditions for example: Code 01 - eyesight correction, for example glasses or contact lenses Code 02 - hearing/communication aid Code 106 - restricted to vehicles with automatic transmissions Where conditions exist, drivers must only drive in accordance with the condition or will not be insured.
	3	A zero tolerance of drink or drug driving will be communicated, and any cases will lead to dismissal.
	4	Driving a company provided vehicle is only allowable for company work and in work scheduled time and no other purpose.
	5	Scheduling of production work will consider any driving required and the length of day, and the recent pattern of work undertaken by an individual, and where needed, overnight accommodation near locations will be provided, all to avoid tiredness.
	6	Driver awareness training will be given to all including information on driver tiredness, distraction, wellbeing, safe and sustainable styles, pre-use checks and reporting.

	7	Driver familiarisation with any vehicles will be given, and for electric vehicles that will have automatic gearboxes, will likely accelerate faster than petrol or diesel cars that people are used to, and will have regenerative braking system that can cause the car to brake abruptly when releasing the accelerator.
	8	Drivers will take breaks from driving in accordance with the UK Highway Code every couple of hours to avoid tiredness.
	9	Anyone using their own vehicle for work purposes must have valid business insurance and the vehicle must be in a roadworthy condition.
	10	Journey times will be sufficient to allow for speed restrictions, traffic conditions, etc.
	11	All loads/equipment carried will be packed and secured in such a manner as to reduce the likelihood of them causing injury in event of a collision.
	12	No use of mobile phones for calls or texting when driving including any use via handsfree, voice recognition or Bluetooth connections to avoid distraction.
	13	No re-programming of satnav or use of entertainment systems when driving to avoid distraction.
	14	<p>DRIVING SCENES</p> <p>Scenes where artists are to be seen driving a car will be done by artists who are competent drivers and only normal parking up and driving off at slow speeds and for short distances.</p> <p>They will not be required to provide dialogue or reactions so they can concentrate solely on driving.</p> <p>Where any driving is required outside these parameters, stand in drivers and where required, stunt coordinators and precision drivers will be used.</p> <p>The crew will be kept at a safe distance from vehicle manoeuvres.</p>

18. Working near roads and vehicles or plant and machinery

Activity		Crew rigging, setting up, coordinating action
Hazard		Potential collisions or crush potentially causing death or serious injuries.
Controls	1	Film crew vehicles and equipment may cause obstructions to line of sight for pedestrians using local roads and pavements. The locations team will need to consider making parking arrangements that do not introduce hazards to users of the area and to make further arrangements for further controls if necessary.
	2	Introduction of equipment vehicles and filming activity will likely make navigation harder or frustrating for local drivers. Crew working near roads or mobile plant and machinery will wear yellow hi viz vest to help to ensure that drivers can see them. If working at night or in dark conditions, then long sleeve hi viz is recommended, especially when road speed limits are above 30MPH.

	3	If guiding vehicles or machinery around when parking up or on the set, this should be done only when keeping several metres away from the vehicle and always when in good visibility and communication with the driver. Only at very slow speeds. Do not put yourself directly near the vehicle where you could fall or trip over, or between other vehicles, barriers or walls where you could be crushed.
	4	If working as a banksman on a regular basis, you should ideally be trained in accordance with commonly used hand signals set out in the Health and Safety (Safety Signs and Signals) Regulations 1996.

19. Asbestos

Activity		Working in buildings constructed before the year 2000
Hazard		Asbestos in various forms has been used very widely in many building products. Asbestos, inhaled as dust can cause lung disease (Asbestosis), lung cancer and Mesothelioma. People who smoke are at greatly increased risk.
Controls	1	Ask if there is an asbestos register for the premises. Caution should still be practiced by rigging crews in older built commercial premises and domestic not to disturb or break through old building fabrics and boards that may contain asbestos materials. If undisturbed then existing asbestos containing materials will unlikely pose a risk in well-ventilated areas.

20. Slips, trips, falls

Activity		Access to uneven surfaces
Hazard		On location it can be expected that other people will likely continue to access the surrounding streets whilst the film crew sets up and records, potentially leading to trips and falls over cables and equipment. In studios the house lights will often be turned out for recording and so obstacles will be less easy to see potentially leading to trips and falls.
Controls	1	Personal protective footwear is strongly advised in any environment for all teams who are involved in activities involving manual handling of heavy equipment E.g. Grips, Lighting, Props teams. All film teams should not wear shoes with open toes. Shoes should be flat soled and good grip, and ideally be waterproof.
	2	Where cable routes can't be flown above pedestrian height, it will be necessary to ensure that cables are ramped across public walkways using accessible type ramps suitable for wheelchair passage. In other places where there is likely coming and going of people then cables should be covered with mats. Cables across doorways and exit routes should be avoided. Cables through fire doors should be avoided or arrangements made to break the cable in an emergency so that fire doors can be closed on exit.
	3	Consideration should be given to illuminate walkways if it gets dark, ideally using battery powered LED working lights to avoid introducing cabling and electrical distribution hazards.

	4	Other hazards for consideration will be the usual everyday film set type hazards created by the changing positioning of equipment and housekeeping tidiness of film equipment and cables – these will need local consideration on a daily basis and as set ups change during shooting.
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21. Location scouting and lone working

Activity		Working alone or scouting new places where a risk assessment has not yet been made.
Hazard		Lone working can lead to un-safe circumstances in dangerous activities or locations that could lead to serious injury or death.
Controls	1	In low-risk environments like an office there is not an absolute requirement for managers and workers to check in, however it is possible that a person could suffer an unforeseeable ill health event whilst working alone and require assistance or support, it is therefore good practice to communicate with your teams daily.
	2	If a known specific significant hazard exists then lone workers must be trained and competent to control the risks, and a regular system of communication put in place, and/or worker provided with an emergency alarm system.
	3	Location scouts should be trained to identify the common hazards found in different environments and should always follow premises owners' safe system of work.
	4	Location scouts should be mindful that not all premises owners will have safe systems of work in place, and for example should specifically consider stopping to assess any working at height activities or access to roofs or derelict structures. In outdoor environments, it is advisable not to cross fields with livestock, and especially where bulls and cows may be present.

22. Unit base, food catering, welfare facilities and waste

Activity		Supporting filming activity
Hazard		Fire, explosion, manual handling injuries, carbon monoxide poisoning, food poisoning, electrocution. Mixing wastes or non-record keeping of waste transfers, poor carbon efficiency.
Controls	1	Caterers must be registered as a food business with their local authority.
	2	Kitchens must also have fire blankets. Vehicles with gas for heating or cooking systems must have carbon monoxide detectors.
	3	Vehicles with electrical systems must comply with BS7671.
	4	Temporary electrical systems e.g. Generators and cables must comply with BS7909.
	5	Portable electrical equipment must be subject to in service electrical inspection and testing.

	6	No grey water or other liquid wastes to be poured down drains e.g. from caterers, facility trucks. No washing of vehicles. Waste fluids must be collected in tanks.
	7	Storage of fuel and other substances harmful to the aquatic environment must be in a suitable bund.
	8	Fuelling operations must be supervised by trained persons, and you must have spill kits available and plans for emergency.
	9	Vehicles fitted with LPG systems or mobile gas ovens must have valid inspection certificate made by a Gas Safe registered Engineer . http://www.gassaferegister.co.uk/about/gas_safe_register_engineers.aspx
	10	The use of LPG in mobile catering units should comply with UKLPG Code of practice No. 24.
	11	Adequate number and type of fire extinguishers must be provided to trained users.
	12	Use of LPG indoors requires consent and your specific controls to avoid creation of carbon monoxide.
	13	Gas must be stored in cages outside studio when not in use in accordance with Liquid Gas UK Code of Practice 7 Storage of Full And Empty LPG Cylinders and Cartridges. https://www.liquidgasuk.org/search?keywords=full+and+empty+cyinders
	14	See the sustainability management plan and policy. Different types of waste must be separated where possible e.g. general mixed, food, electrical, light bulbs, metal, plastics, solvents, emulsions, paper, wood, cooking oil, batteries.

23. Weather and lightning strike

Activity		Working in changeable weather conditions
Hazard		The weather is likely to be low temperatures outdoors with a risk of rain and possibly wind. Risks of getting too cold/wet affecting dexterity and decision-making. High wind blowing equipment over or materials into people. There could also be unexpected high temperatures with a risk of sun burn and heat stroke.
Controls	1	WEATHER Everyone will be advised of the need to have wet weather jacket and trousers, suitable outdoor shoes, and wind block clothing ideally in layers that can be adjusted to changing weather and working conditions.
	2	Temporary shelter from wind or rain during short breaks in filming where possible, and pop-up shelters should be weighted down to ensure no overturn or blown away in the wind.
	3	All technical equipment protected against being blown over.
	4	The production team will provide sun cream on hot days, and shelter when needed.
	5	The production team will supply water, food and warm drinks as needed.

	6	LIGHTNING STRIKE Due to the low occurrence of lightning, fatal lightning strikes in the UK are rare, i.e. 2 or 3 a year. Weather reports will be monitored. In event of lightning occurring, the ROSPA advised 30/30 rule will be adopted: If the lightning flash-to-thunder clap is 30 seconds in length or less you should seek shelter. Staying inside this shelter is advised until 30 minutes past the last clap of thunder. This ensures that any distant strikes at the beginning of the storm (lightning can travel up to 10 miles), or trailing storm clouds at the back of the storm do not take anyone by surprise. Shelter can be taken inside buildings or vehicles. All production lights will be powered down. Cranes, cherry pickers etc. Will be brought down.
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24. Public attention

Activity		All filming activities in public
Hazard		Public aggression, public congregating to watch activities in places or ways that lead to unsafe conditions potentially affecting the public or cast and crew.
Controls	1	Where public aggression may be likely then SIA licensed stewards should be contracted to assist the film teams and manage unwanted attention.

25. Vermin, pests, midges and ticks

Activity		Working in places where rats may visit, or pigeon excrement may be present
Hazard		Weil's disease, leptospirosis from the urine of infected rats. The bacteria get into your body through cuts and scratches or through the lining of the mouth, throat and eyes after contact with infected urine or contaminated water. The disease starts with flu-like symptoms such as a headache or muscle pains. More severe cases can lead to meningitis, kidney failure and other serious conditions, and can be fatal. Some areas in certain weather conditions will have swarms of midges. Risk of those being bitten losing ability to concentrate on safety issues. Scratching bites may lead to infection. In some locations, fern and heather is likely to contain ticks. If deer inhabits the area, there is a slight risk of bites from ticks causing Lyme disease.
Controls	1	Wear protective gloves.
	2	Regular handwashing and avoiding hand to mouth/eye etc contact. Following good basic hygiene.
	3	Do not eat meals or drinks in the area.
	4	Washing cuts and grazes immediately with soap and running water cover all cuts, abrasions and other breaks in the skin with waterproof dressings and/or gloves.
	5	Midges will not be a problem during winter months. In summer months, midges will not swarm in direct sunlight or windy conditions. The production will provide anti-midge cream and midge hoods where necessary. The crew will be advised to wear clothing to cover exposed skin to reduce risk. Where possible, wind machines / fans will be used at rest areas to keep them midge free.
	6	The cast and crew will be advised of risk and to cover up exposed skin when going

		through fern or heather to reduce risk. They will be advised to stay on paths and avoid walking through fern and heather. They will be informed to check for ticks each day and if found, get attention from the unit nurse (if a nurse is engaged). They will be advised to look for signs of possible Lyme disease, i.e. red spots around bite, feeling of flu symptoms, red spots elsewhere around 1 – 4 weeks. If symptoms show, they will be advised to see their GP for diagnosis and treatment. The unit nurse will be advised to carry tick-removing tools.
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26. Animals in production or offices

Activity		Animals in productions or offices
Hazard		Bites, stings, cuts, disease, pests, infestations.
Controls	1	Only animals for assistance should be brought to site unless for programme purposes i.e. no pets.
	2	Dangerous animals require prior communication and arrangements e.g. suitable handlers and facilities.
	3	Any animals used with children will require specific risk assessment.

27. Control of substances hazardous to health

Activity		Design and construction, location filming, office and cleaning products, hairdressing and make-up activities, costume products and washing
Hazard		Dusts, gases, fumes, liquids, gels or powders that come into contact with your eyes or skin. Some substances can cause asthma or other diseases, including cancer. Many can damage the skin, and some can cause serious long-term damage to the lungs. The effect can be immediate, such as dizziness or stinging eyes, or can take many years to develop, such as lung disease.
Controls	1	A specific COSHH risk assessment will be made by each department head with reference to product safety data sheets, and relevant controls put in place.
	2	Where possible harmful materials and substances will avoided by substituting for a non or less harmful alternative.
	3	COSHH awareness training will be given and any training or information relevant to the hazards.
	4	Personal protective equipment will be provided where necessary.
	5	Monitoring and health surveillance will be done where necessary.

28.Cast eating food in script action

Activity		Casting eating food in script action
Hazard		Potential for food contamination or not being served at safe temperatures leading to food poisoning.
Controls	1	Food should be prepared by a person who has completed at least an elementary food hygiene certificate, unless for example the food is only being transferred from pre-packaging to plate and heated in microwaves in accordance with supplier instructions, and that good hygiene practices are followed.

29. Weapons

Activity		High risk script action
Hazard		Death or serious injury caused by performance going wrong in action, or by poor planning of the action, poor management coordination and communication, lack of training or rehearsal for performers. Unauthorised access to weapons or areas due to poor security or storage. Unexpected attendance by armed police and emergency services. Risk of injuries from blank cartridges, sharp blades, blunt instruments etc. Risk of loud noise or muzzle flash burning skin or setting fire to hair or costume.
Controls	1	Weapons in accordance with HSE entertainment information no.20; management of firearms and other weapons in productions. Http://www.hse.gov.uk/pubns/etis20.pdf
	2	Where possible Computer Generated Image will be used to replicate muzzle flash.
	3	An armourer will be responsible for the weapons at all times and will implement appropriate controls, including:
	4	Notifying the police well in advance if the production may affect the public.
	5	Keeping all weapons and ammunition locked in a secure location before and after each scene.
	6	Using fake soft blades for fight scenes and blunt alloy blades for low-risk close-up shots.
	7	Instructing artists on the safe handling of weapons.
	8	Loading only the minimum ammunition necessary for each scene.
	9	Double-checking that firearms are unloaded and carried with the breach locked open as required.
	10	Ensuring safe distances and firing angles to prevent injury from blank cartridges.
	11	Providing protection for the camera crew where necessary
	12	Supplying hearing protection to everyone and briefing them on its proper use.
	13	Establishing an action plan for misfires.

	14	FLINTLOCK PISTOL Where practicable, the effect will be created digitally. Otherwise, the effect will be under the supervision of the armor, who will implement controls such as: Using a small quantity of gunpowder to create a minimal flash. Isolating the scene to ensure the gun is held at full arm's length away from the body before the trigger is pulled. Protecting hair and costume by covering, damping down, or applying fire retardants. Ensuring the use of ear protection.
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30. Stunts / Driving / Horse riding

Activity		High risk script action
Hazard		Death or serious injury caused by performance going wrong in action, or by poor planning of the action, poor management coordination and communication, lack of training or rehearsal for performers.
Controls	1	Stunts in accordance with HSE entertainment information no.17; stunts, fights and other potentially dangerous production activities. Http://www.hse.gov.uk/pubns/etis17.pdf
	2	All activities requiring specialized skills and knowledge to prevent injury will be classified as stunts and will be supervised by the stunt coordinator. The coordinator will assess the risks of each activity and implement appropriate controls, including:
	3	The use of qualified stunt doubles. Persons performing or coordinating these high-risk activities must be accredited by jigs: www.jigs.org.uk or british stunt register https://britishstuntregister.com/
	4	Provision of body armour.
	5	Use of soft props, structures, and crash mats.
	6	Allocation of sufficient rehearsal time.
	7	Safe positioning of cast and crew.
	8	Implementation of emergency plans.
	9	DRIVING The use of a suitable, road worthy vehicle. The use of a stunt driver double/precision driver. Precise planning with clearly understood cues and timings. Radio communication between coordinator and driver. Rehearsals with no personnel in the area. Adequate clearance between moving vehicle action and any cast or crew. Emergency medical provision on standby in case of an accident.
	10	HORSE RIDING The use of specialist horse riders/stunt riders as stand in doubles. The use of specially trained stunt horses. Training of artists to improve horse-riding skills for low risk activities. The wearing of head protection where possible (may be disguised as other headwear).

		The choosing of an appropriate route and clearing of any significant hazards. Closed set to keep public away. Crew positioned at a safe distance.
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31. Fight scenes

Activity		High risk script action
Hazard		Actors are required to act out fight scenes where they will throw punches and kicks at each other or use weapons or items as weapons. Risk of full contact blows and injury when falling to the floor.
Controls	1	The fight scenes will be choreographed and supervised by an experienced stunt/fight arranger, who will assess the action and implement appropriate controls, including:
	2	Use of stunt doubles when the risk is high or if the artist lacks the necessary skills.
	3	Ensuring punches miss by a safe distance, with artists simulating being hit.
	4	Light hits to the body will be controlled to areas protected by body armour.
	5	Moves will be rehearsed slowly until they become instinctive.
	6	Artists will be allotted sufficient rehearsal time.
	7	Crash mats will be utilized, and artists will be instructed on proper falling techniques.
	8	Hazardous obstacles near the action will be removed or padded, and body armor may be worn.
	9	Crew and equipment will be positioned at a safe distance from the action.
	10	Props used to strike artists will be made from breakaway materials, such as sugar glass or balsa wood.
	11	Weapons, including knives and swords, will be crafted from soft, blunt materials, with specific training provided.

32. SFX

Activity		High risk script action
Hazard		<p>Rain Risk of: FX stands falling over, increased slip hazards, electrical hazards.</p> <p>Wind Wind effect may drive dust or other particles into eyes or blow equipment over onto persons.</p> <p>Snow Some scenes may involve snow effects with the use of a variety of substances</p>

		<p>including paper, foam and snow candles. The snow candles contain Metaldehyde that is a mild to medium toxin. Prolonged exposure to significant concentrations of Metaldehyde can cause ill health effects. Paper dust can cause nosebleeds. Foam may create slip hazards on some surfaces.</p> <p>Mist/haze There is a risk of some discomfort such as a sore throat and eyes or headaches from long periods of exposure to theatrical smoke/mist/ haze. Risk of electrical hazards from equipment, hot surfaces on equipment and liquid spill hazards. Fire alarms may be activated.</p> <p>Dry Ice Risk of burns to skin and eyes from contact with dry ice. Risk of asphyxiation from CO2 gases produced.</p> <p>Bullet Hits A pyrotechnic will be used to create the illusion of someone being shot. Risk of injury from heat or shrapnel from pyrotechnics. Risk of harmful noise.</p> <p>Fire and flame Real flames will be used in some internal and external sets. Risk of setting fire to combustible materials and substances. Risk of setting fire to the clothes of artists. Risk of persons being injured by smoke or flames.</p>
Controls	1	<p>RAIN Rain stands will be securely positioned, weighted down, or tied off to withstand the forces of water and wind. Electrical equipment will either be removed from the rain FX area or covered to protect it from water. Only equipment with the appropriate IP rating will be used in this area. Wet walking surfaces will be considered when planning actions to ensure safety. During winter months, the ground will be salted as necessary to prevent ice formation.</p>
	2	<p>WIND Localized wind funnels will be used as needed. Wind machines will be activated only in the absence of personnel until the effects on set are assessed and any dust has cleared, with loose materials removed. The supervisor will continuously monitor the effects on set and maintain radio communication with wind machine operators to stop the machines in case of an emergency.</p>
	3	<p>SNOW The paper snow will be dispersed with a mixture of water to help it adhere to surfaces and prevent it from blowing away. This approach minimizes dust; while any dust created from the paper may cause short-term effects such as nosebleeds, it will not result in long-term health issues. Snow effect materials on stairs will be kept to a minimum and placed primarily at the edges. Members of the public will be advised to avoid walking on the snow effect when passing through the set. Snow candles will be minimized and used only outdoors, in conjunction with wind</p>

		<p>machines, to ensure fumes disperse quickly into large volumes of air. Although the fumes may be noticeable and could cause temporary discomfort, their low volume and limited exposure time will not lead to long-term health effects.</p>
	4	<p>MIST/HAZE</p> <p>The use of smoke and haze-making substances will be implemented, ensuring they have no long-term harmful effects on health. To minimize short-term discomfort, mist levels will be kept to a minimum.</p> <p>When haze is not required, such as during breaks, the set will be properly ventilated. Anyone experiencing discomfort from the haze will be permitted to step outside for fresh air.</p> <p>The following safety measures will be in place:</p> <p>All electrical equipment will be Inservice inspected and tested.</p> <p>The operator will conduct a visual inspection for any obvious damage before use.</p> <p>The equipment casing will provide protection from most heated parts.</p> <p>Only competent operators will handle the equipment, ensuring they are aware of hot areas and avoid placing it near easily combustible materials.</p> <p>The operator will refill and operate the equipment in a manner that prevents spills or residue from creating hazards.</p> <p>Any spills will be promptly cleaned up by the operator.</p> <p>The operator will ensure that smoke detectors have been capped or isolated prior to operation.</p>
	5	<p>DRY ICE</p> <p>The dry ice will be handled by a competent person.</p> <p>Hand and eye protection will be worn when handling dry ice.</p> <p>Ice will be added to warm water in small doses to control the release of gas.</p> <p>Barriers will be used to contain clouds of CO2 gas within the designated area.</p> <p>Measures will be taken to ensure CO2 gas does not filter into rooms below the set.</p> <p>Precautions will be implemented to ensure that no artists or crew are engulfed in mist above their heads.</p> <p>Anyone experiencing distress from the effect will be immediately removed to fresh air.</p>
	6	<p>BULLET HITS</p> <p>Use low-power pyrotechnics.</p> <p>Provide protective body armor for the artist.</p> <p>Implement a lockable firing box and detailed cueing plans.</p> <p>Train the artist to avoid injury by not looking at or placing hands or arms in front of the pyrotechnic charge.</p> <p>Ensure the use of ear protection.</p> <p>Position other personnel safely away from the pyrotechnic area.</p>
	7	<p>FIRE AND FLAME</p> <p>A qualified special effects supervisor will oversee practical flame effects. MThe effects supervisor will carry out an assessment of risks and put appropriate controls in place which may include:</p> <p>The materials used in the fires will be mostly non-combustible.</p> <p>The fire effects will be created by LPG which can be turned on and off at will under the supervision of the special effects supervisor.</p> <p>All other combustible materials/substances will be kept at a safe distance, fire proofed</p>

		<p>or shielded.</p> <p>Use of other substances with flammable vapour will not be permitted on set</p> <p>The supervisor will liaise with the director and costume on the proximity of artists to the effects.</p> <p>Where necessary artists will wear flame retardant clothing and wigs.</p> <p>Fire fighter/s with equipment will be on set during any fire effects.</p>
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33. Camera handheld or Steadicam

Activity		Use of technical production equipment
Hazard		Certain shots will necessitate the use of a Steadicam camera rig or a shouldered camera while in motion. Risks include: associated with heavy equipment, increased risk of tripping due to the weight of the equipment, reduced field of view while operating the camera.
Controls	1	The handheld camera equipment will only be used by a fit, experienced operator.
	2	The action content will be carefully assessed in relation to how it will affect the camera operator and controls applied such as:
	3	Removal of slip and trip hazards from the operating area as much as possible.
	4	Conducting a walkthrough to identify and avoid non-removable hazards.
	5	Placing markers to indicate the route to be followed.
	6	Assigning a buddy or backwatcher to steady and alert the camera operator when necessary, particularly on rough terrain or stairs.
	7	Allowing time to warm up muscles in cold weather before lifting.
	8	Frequently resting the camera rig on a stand to reduce strain.

34. Camera crane

Activity		Use of technical production equipment
Hazard		The boom poses risks as it moves, potentially striking individuals or other objects, which could cause them to fall and injure people. Additionally, the jib may come into contact with overhead electric cables. Equipment can fall and cause injury due to the following factors: improper assembly, imbalanced counterweights, soft or uneven ground, contact with other objects, wind, momentum of the jib, wheels hitting objects when moving.
Controls	1	The Camera Crane will be supplied by a reputable contractor and operated by competent personnel under the supervision of the key grip. The key grip will assess risks and implement controls to mitigate them, including:
	2	Identifying hazards such as overhead cables or structures.
	3	Assembling equipment according to the manufacturer's instructions.

	4	Conducting thorough inspections of the equipment by a competent individual before use.
	5	Carefully placing and removing counterbalance weights one at a time from each side, as applicable.
	6	Selecting or preparing a suitable operating surface including consideration of the weight loads placed upon that surface.
	7	Not raising the jib in high winds.
	8	Considering the momentum of the jib when planning stops or reverse moves.
	9	Installing wheel guards and clearing the intended path of any obstructions.
	10	Rehearsing movements slowly in the absence of personnel.
	11	Ensuring adequate number of operators are present to manage jib moves, camera positioning, and framing to prevent any collisions.
	12	Advising and communicating with cast and crew of proposed moves.
	13	Parking the boom where people are less likely to walk into it.

35. Camera tracks

Activity		Use of technical production equipment
Hazard		The camera will be operated on tracks using a camera dolly. Potential risks include: The dolly may fall from the track and cause injury due to improper assembly, obstacles on the track, or the effects of inertia and momentum. Individuals may experience aches and strains from pushing or pulling the camera dolly. In public spaces, pedestrians may trip over the tracks. The tracks may obstruct access and egress.
Controls	1	The Grip and assistants are experienced professionals who will implement best practices by conducting risk assessments and applying their expertise to establish adequate controls. (See also Manual Handling). The Grip will ensure the following:
	2	The tracking equipment is securely assembled before use, with valid safety certificates (LOLER or PUWER), and that the tracking surface is even and stable while supporting the full load.
	3	Proper posture and handling techniques are used to ensure personal health and safety when moving heavy equipment.
	4	Camera and auxiliary cables are routed together to minimize hazards during tracking.
	5	The tracking route is clear of non-essential personnel, cables, and other obstacles.
	6	The tracking surface remains stable throughout continuous operation, with prompt rectification of any slippage or instability.
	7	Measures are in place to prevent the dolly from rolling off the end of the track.

	8	The public is protected during assembly and disassembly in public areas.
	9	Whenever possible, tracks are positioned to allow sufficient clearance for emergency access.

36. Camera ladder pod

Activity		Use of technical production equipment
Hazard		The camera will be operated on tracks using a camera dolly. Potential risks include: The dolly may fall from the track and cause injury due to improper assembly, obstacles on the track, or the effects of inertia and momentum. Individuals may experience aches and strains from pushing or pulling the camera dolly. In public spaces, pedestrians may trip over the tracks. The tracks may obstruct access and egress.
Controls	1	The ladder pod will be sourced from a reputable supplier.
	2	A competent person (e.g., Grip) will verify that the ladder pod is in serviceable condition and that its load-bearing capacity is suitable for all configurations and weights.
	3	An adequate number of personnel will be designated to carry, erect, and dismantle the ladder pod.
	4	The distance it needs to be carried will be minimized, and it will be transported in pieces if possible.
	5	The ladder pod will be used in accordance with the supplier's safety guidelines.
	6	It will be positioned away from pedestrian and vehicular routes, as well as other obstructions.
	7	All internal safety cords and ties will be securely fastened to prevent ladder spread.
	8	Checks will be made to ensure that no individual has pre-existing conditions, such as vertigo, that could affect their safety.
	9	Anyone climbing the ladder pod will be required to wear sensible footwear with good grip.
	10	An exclusion zone will be maintained around the base of the ladder pod, and all cables will be properly managed.
	11	Any items that could fall will be secured in zipped pockets or bags, or tethered.
	12	No one will remain at height for more than 20 minutes at a time.
	13	No adjustments will be made while a person is on the ladder pod.
	14	The ladder pod will not be erected near overhead power lines.

37. Camera drones – aerial filming (UAV)

Activity	Use of technical production equipment	
Hazard		Crash due to a mechanical/electronic failure, a loss of contact between the pilot's ground control transmitter and receiver on the aircraft. It could also crash due to unsuitable weather conditions or pilot error. The aircraft could 'fly away' if control is lost between the pilot's ground control transmitter and receiver. Crash into other aircraft or into people or structures (pylons, buildings) and natural features (cliffs and trees). Inadvertently trespass or infringe privacy whilst operating the drone. The use of the UAV is potentially illegal if the operator does not comply with the strict operating conditions and limitations specified by the relevant aviation authorities. In the UK this is the Civil Aviation Authority (CAA) and the specific legislation covering drones is the "The Air Navigation (Amendment) Order 2020". Without the correct flight planning, risk assessment and weather conditions, it is very easy for a drone flight to go wrong potentially creating a risk and breaking the law.
Controls	1	Check that the Drone Operator is suitably competent for the type of drone filming to be undertaken and confirm that the drone will be operated in accordance with the UK CAA requirements. More useful info can be found here: https://register-drones.caa.co.uk/drone-code/where-you-can-fly
	2	CAA limitations include prohibition on flight within 150 metres of, any congested area of a city, town or settlement and within 50 metres of any person, vessel, vehicle or structure not under the control of the person in charge (i.e. the UAV operator). The production must ensure that:
	3	The production and operator has direct control of all those within 50 metres of the aircraft at any time.
	4	Only essential persons within the 50 metres zone (50 metres in each direction, i.e. 100 metres exclusion zone).
	5	Persons under the control of the operator should follow directions and safety precautions to avoid unplanned interactions with the UAV.
	6	This will include all film production staff and any other pre-briefed, nominated individuals with an essential task to perform in relation to the event.
	7	The operator must provide a flight plan and safety risk assessment for the flight activity.
	8	The artists and crew who will be in close proximity to the UAV whilst it is in flight must be able to: elect to participate or not to participate with the UAV flight operations, understand the risk posed to them inherent in the UAV flight operations (the rotor blades are dangerous and can cause serious injury), understand the safety controls instituted for them by the production and UAV operator during the flight activity.
	9	In the UK, commercial drone operations can be conducted under the Open or Specific category which have very specific rules on the type of drone that can be flown, the location where it can be flown and how close the drone can be to people and property.
	10	Drone Operators flying in the Specific category must have a "Operational Authorisation" document issued by the CAA. For Drone Operators that only fly in the Open category the CAA does not issue any specific documentation but they still need to observe strict

		rules.
	11	Drone Operators must have liability insurance that specifically cover the flying of drones for the purpose of aerial filming work.
	12	Obtain a Risk Assessment that is specific to the location where the drone will be flying. Review of the Risk Assessment and an onsite confirmation of compliance from the drone pilot must be obtained before the drone is flown.
	13	Post flight the drone operator should be requested to supply the flight data file for all the flights conducted. This flight data file should be stored together with raw drone footage as it provides very useful GPS data should there be any subsequent complaints related to how the drone was flown or infringement of privacy.
	14	The National Aviation rules will also impose limitations on flights. Within the UK this is generally a max altitude of 400 feet (120 metres); maintaining visual line of sight not beyond 500m from Pilot; suitable weather conditions (wind no greater than about 15knots, 5km visibility, no rain, etc.); no flying in certain classified or 'congested' areas (unless special permissions is sought), etc.

38. Camera helicopters– aerial filming

Activity		Use of technical production equipment
Hazard		A helicopter may be used for aerial filming shots over locations. Risk of crash, contact with rotors, persons or items falling from aircraft if door is removed for filming, items moving and interfering with aircraft controls, persons being struck by items blown by downdraught, cold and noise.
Controls	1	Operation will be carried out in accordance with aviation regulations. And controls put in place such as:
	2	Ensure the pilot is experienced in aerial filming for the specific production requirements.
	3	The pilot will retain final authority over all decisions related to flying activities and may abort the flight at any time.
	4	Whenever possible, use an aircraft equipped with an external camera pod that is controlled from inside the cabin.
	5	Plan and agree on filming requirements and flight details in advance, including abort signals.
	6	The pilot will provide a safety briefing to the crew covering aircraft safety and emergency procedures.
	7	No significant changes to flight plans will be made mid-flight.
	8	Store and secure equipment to prevent contact with aircraft controls during flight.
	9	Secure all equipment and harness individuals if flying with an open door.
	10	Provide hearing protection and cold-weather gear if the door is opened during flight.
	11	Ensure that all equipment near the landing zone cannot be caused to be moved by

		downdraft – do not underestimate the power of the downdraft to easily make heavy items fly very dangerously E.g. steel deck.
	12	Obtain a Risk Assessment that is specific to the location where the drone will be flying. Review of the Risk Assessment and an onsite confirmation of compliance from the drone pilot must be obtained before the drone is flown.
	13	Post flight the drone operator should be requested to supply the flight data file for all the flights conducted. This flight data file should be stored together with raw drone footage as it provides very useful GPS data should there be any subsequent complaints related to how the drone was flown or infringement of privacy.
	14	The National Aviation rules will also impose limitations on flights. Within the UK this is generally a max altitude of 400 feet (120 metres); maintaining visual line of sight not beyond 500m from Pilot; suitable weather conditions (wind no greater than about 15knots, 5km visibility, no rain, etc.); no flying in certain classified or 'congested' areas (unless special permissions is sought), etc.

39. Lighting- helium balloons

Activity		Use of technical production equipment
Hazard		Large helium-filled balloons with lighting rigs will be floated above the set. Potential risks include: Wind forces creating undue pressure on the fly ropes and anchor points. Electrical hazards associated with the lighting rigs. Hazards from cables and fly ropes.
Controls	1	Helium gas is inert and non-flammable.
	2	The risk of electrocution is minimal.
	3	The risk of tripping over electrical cables is minimal.
	4	The risk of entanglement in fly-ropes is minimal.
	5	There is no risk of inhalation of helium gas.
	6	Compressed helium gas bottles should only be handled by a qualified balloon technician.
	7	The technician will monitor the balloon for any loss of pressure and add helium as needed.
	8	Balloons will be inflated and deflated within a designated, cordoned-off area.
	9	The technician will monitor weather reports and wind speeds, ensuring the balloon is brought down safely before hazardous conditions arise.
	10	Tie ropes and anchor points will be regularly inspected and monitored by the balloon technician.

40. Vehicles for tracking

Activity		Use of technical production equipment
Hazard		Cameras and rigs protruding from the outside of the vehicle can pose a risk of injury to other road users. Additionally, mounts on the front of the vehicle may exacerbate injuries if a pedestrian is struck.
Controls	1	Camera rigs will be installed by a competent grip or rigger.
	2	Where there is a risk of a rig falling from the vehicle due to a fixing failure, a secondary safety bonding will be implemented.
	3	Protruding rigs will only be used on roads that are closed or controlled by police to prevent access by pedestrians and other road users while the tracking vehicle is in motion.
	4	When parked, the tracking vehicle will be positioned safely, and any protruding equipment will be clearly marked to warn passersby.

41. Vehicles - low loaders

Activity		Use of technical production equipment
Hazard		A low-loader truck will be used to transport vehicles along the road for filming driving shots safely. Potential risks include: Crew members falling from the low-loader or pick-up truck while setting up or during movement. Disruption to other road users. The presence of pedestrians or other vehicles on the road, which could cause the camera vehicle to brake or swerve.
Controls	1	The low-loader will be supplied by a reputable and experienced film industry contractor.
	2	Where possible, risks will be significantly reduced by controlling traffic on the road to prevent unauthorized persons or vehicles from accessing it during driving scenes.
	3	Crew members will be securely seated on the vehicles, and seatbelts or harnesses will be worn where appropriate.
	4	Driving speeds will be kept slow, and buffer vehicles will be positioned at the front and rear as necessary.
	5	In rural areas, the potential for wild animals entering the road will be considered, and drivers will be instructed not to brake or swerve abruptly to avoid them.
	6	A safe turning point will be established at both ends of the route.

42. Vehicles – tracking bike

Activity		Use of technical production equipment
Hazard		A bike with a sidecar-style platform or rickshaw may be used to transport a camera and operator for tracking shots. Potential risks include: Collision with obstacles or persons. Overturning, which could cause injury.
Controls	1	The bike will be suitable for the intended purpose and terrain.

	2	Any rig attached will be inspected by a competent person to ensure it is mechanically sound.
	3	The camera rig will be installed on the platform by a competent Grip.
	4	The operator in control of the bike will have experience to accurately judge its width, balance, and manoeuvrability.
	5	The rig will be used on gradients well within its capability, taking into account any additional mounted equipment that may affect its centre of balance.
	6	Rehearsals will be conducted at slow speeds.
	7	Cast and crew will be informed of the rig's intended path and kept at a safe distance. The set will be closed to the public during the use of the rig.

43. Vehicles – quad tracking bike

Activity		Use of technical production equipment
Hazard		A quad bike all-terrain vehicle will be used to track fast-moving action. Potential risks include: Collision with obstacles or persons. Overturning, which could result in injury.
Controls	1	The vehicle will be rigged with a camera mount, operator seat, and counterweights by a qualified rigger and grip.
	2	The quad bike will be driven by a trained and experienced operator who is familiar with the vehicle, terrain, and driving requirements.
	3	The vehicle will be inspected by a competent person to ensure it is mechanically sound.
	4	The quad will only be driven over reasonably level ground well within its capabilities.
	5	All riders will wear crash helmets.
	6	The route will be closed to all other traffic and members of the public.
	7	Crew members will be kept at a safe distance from the vehicle and a safe distance will also be maintained from the artists.

44. Liquid Petroleum Gas

Activity		Use of LPG gas cylinders
Hazard		Fire, explosion cause by sources of ignition, release of gas causing fire or asphyxiation by wrong connection of regulator valves, manual handling injuries caused by moving cylinders.
Controls	1	LPG must be stored in accordance with the guidance issued by the Liquid Petroleum Gas Association (LPBA). Code of Practice 7, issued by the LPGA deals with the storage of full and empty LPG cylinders.
	2	The use of LPG in mobile catering units should comply with UKLPG Code of practice No. 24.

	3	Only a competent person should operate LPG equipment
	4	Never lay cylinders on their side.
	5	Secure tall cylinders in upright position to prevent being knocked over.
	6	Store cylinders in a secure cage outside. Gas must be stored in cages outside studio when not in use in accordance with Liquid Gas UK Code of Practice 7 Storage of Full And Empty LPG Cylinders and Cartridges. https://www.liquidgasuk.org/search?keywords=full+and+empty+cyinders
	7	Check hoses daily for signs of damage never attempt to repair a hose.
	8	Turn off valves when not in use.
	9	No smoking in the vicinity of cylinders.
	10	If you smell gas, turn off cylinder, avoid use of sources of ignition such as electrical equipment and light switches, vacate area and allow to ventilate.
	11	Use a cylinder trolley to move gas bottles.

45. Make-up and hair

Activity		Cosmetic and beauty services for cast and supporting artistes, prosthetics
Hazard		Poor access or lighting or housekeeping at HGV facility vehicles on unit bases or temporary workrooms in premises leading to slips, trips and falls. Fire or explosion of substances like peroxide used for hair dye and hair sprays. Dermatitis or severely dry skin from products and washing hair. Infection to cast by unhygienic or shared make-up brushes. Allergic reaction to products. Electric shock by damaged hair dryers and tongs or poor electrical provisions in the work areas. Cuts from scissors and razors, Burns from hot tongs and dryers. Work related upper limb disorders caused by poor posture and standing for long periods of time or neck and back pain. Carbon monoxide poisoning from dangerous use of LPG or poorly designed ventilation systems in facility vehicles or unit bases, or proximity of exhaust fumes from unit base generators to make-up truck. Musculoskeletal injuries by poor manual handling technique when moving equipment and supplies.
Controls	1	The Make-up Designer will make a specific assessment of the intended work areas and practices and for Control of Substance Hazardous to health (COSHH). Team will be advised on the safe use of all substances to be used and to follow label instructions and emergency procedures E.g. for splashes in the eye, accidental ingestion. Use protection where recommended i.e. gloves, eye protection, face mask etc. Do not to mix chemicals together unless it is an established practice known to be safe. COSHH Data Sheets to be held in safety file in the department.
	2	Use of LPG in mobile units should comply with UKLPG Code of practice No. 24.
	3	Unit base vehicles and workrooms must have carbon monoxide detectors and smoke detectors.

	4	Unit base vehicles and premises must have valid electrical inspection and test certification in accordance with BS7671 18 th Edition Wiring Regulations. Hair dryers and tongs etc. are typically double insulated and therefore will not receive an earth loop impedance test but should be checked to be in good condition with no damage to cables or plugs before every use. Sockets should be protected by RCBO or in-line RCDs.
	5	Temporary power systems and generators must comply with BS7909, and generators be situated so as not to exhaust in to work areas.
	6	Facility vehicles must have adequate steps and handrails for access.
	7	Specific risk assessment should be made of anyone with access requirements when it is not feasible to access HGV vehicles as traditionally designed.
	8	Unit bases and work areas to have good lighting for day and night working for safe access. Trailing cables minimised as much as possible. Cables ramped or flown where possible. Wear non-slip shoes.
	9	Workstations to have lighting suitable for creative purposes and at a colour temperature suitable for make-up application.
	10	Make-Up Container Usage: To maintain hygiene, avoid sharing containers of any make-up (skin, eye, or mouth). Please use individual personalized containers or scoop small amounts onto a wooden spatula before application.
	11	Disposable Application Items: Whenever possible, use disposable sponges, powder puffs, and similar items. These will not be reused, as they are difficult to sterilize effectively.
	12	Towel Sharing: To prevent cross-contamination, avoid sharing towels. Individual or disposable towels are preferred.
	13	Non-Disposable Applicators: Brushes, spatulas, combs, and other non-disposable applicators will not be shared among artists. They will be thoroughly sterilized after each use.
	14	Lipstick Application: Direct application of lipsticks to the lips will be avoided. Instead, a small amount will be taken onto a spatula and applied using a clean brush. Brushes used for this purpose should either be disposed of after use or cleaned and sterilized per established guidelines before being used on another cast member.
	15	Disposing of Surplus Products: Any surplus make-up on a wooden spatula will be discarded after use, ensuring that it is not reused.
	16	Infected Individuals: If a cast member presents with any visible skin, eye, or mouth infection, we will only use disposable make-up applicators. The make-up artist will wash their hands thoroughly after completing the make-up before proceeding to the next cast member.
	17	Cleaning Tools: All combs, brushes, and similar tools will be cleaned and sterilized between artists to maintain hygiene standards.
	18	Access to Clean Water: ensure that clean hot and cold running water, as well as clean washbasins, are always accessible for thorough hand washing.

	19	Hand Hygiene: Makeup artists and hairstylists will wash their hands between clients and wear clean protective gloves as needed. Non latex gloves provided when wanted. Teams are trained to dry hands thoroughly and moisturise between jobs with non-perfumed hand cream.
	20	Allergic reactions: Checks will be made that cast are not allergic to certain products in advance of filming using patch test from reputable suppliers.
	21	Sharps: Use of one use disposable blades/sharps when possible. Sharps boxes provided. Sterilise all non-disposable sharp instruments after each use. Sterilising liquid changed daily. First aid box kept stocked up.
	22	Manual Handling: Do not to lift heavy items unless necessary and to test weight first and get assistance if needed. Where necessary, trolleys will be provided. Where possible, loads will be subdivided into smaller, lighter loads.
	23	Workstations: Client chairs are fully adjustable. Sinks are designed to minimise twisting. Wheeled stools are provided to use when cutting hair or applying make-up. Ant-fatigue floor mats used when wanted if do not cause a trip hazard.
	24	Fires: Avoid the use of flammable substances and materials where possible. Avoid contact with ignition sources E.g. naked flames, heat, sparks. Store flammable substances in a suitable metal fire resistant cupboard. Do not overload power sockets or extension cables or daisy chain extension cables.

46.Nighttime working

Activity		Working at night
Hazard		Rigging and de-rigging where lighting is poor increases most other risks due to the reduced visibility.
Controls	1	Establish and maintain clear main routes to and from each set, ensuring they are free from any significant hazards.
	2	Working lights will be rigged in all areas where lighting is low to provide sufficient visibility for all activities. At a minimum, adequate lighting will be provided along all main routes to and from the set to promote safety while moving between areas.
	3	In situations where providing adequate lighting is not reasonably practicable such as with a small number of staff on site for a short duration then personal handheld or head torches will be provided for use by personnel rigging lights.
	4	Working lights will remain accessible and operational when set lighting is turned off to ensure that proper visibility is maintained until all work at the location is complete.