LONDON FIRE BRIGADE

Risk assessment procedure

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Owner:	**Assistant Director, Health and Safety**
Responsible work team:	**Health and Safety Services**

Contents

1 Scope

1.1 The purpose of this policy is to enable the London Fire Brigade (LFB) to fulfil its statutory duties to comply with the Health and Safety at Work Act, the Management of Health and Safety at Work regulations 1999 and other regulations by ensuring, so far as is reasonably practicable, the health, safety and welfare of employees and others who may be affected by the LFB's activities through a systematic risk assessment process.

1.2 The objectives of this policy are to ensure that the LFB:

- Complies with relevant health, safety and welfare legislation.
- Promotes direct ownership of risk control measures and the risk assessment process by all levels of management.
- Maintains a systematic approach to identifying hazards by evaluating and recording risk assessment information using a robust information management system for document control.
- Implements risk control measures effectively supported by robust active monitoring, audit and review procedures.

2 References

2.1 The Health and Safety at Work Act 1974 sections 2, 3, 4 and 6.

2.2 The Management of Health and Safety at Work Regulations 1999 and Approved Code of Practice L21.

2.3 The Workplace (Health, Safety and Welfare) Regulations 1992, as amended by The Quarries, Miscellaneous Health and Safety Provisions Regulations 1995 and Approved Code of Practice and Guidance L24.

2.4 The Control of Substances Hazardous to Health Regulations 2002 (as amended) and Approved Code of Practice L5 (fifth edition).

2.5 The Control of Noise at Work Regulations 2005 and Guidance L108 (second edition): Policy number 213 - Control of noise at work procedure.

2.6 The Manual Handling Regulations 1992 (as amended 2004) and Approved Code of Practice L23: Policy number 540 - Manual handling operations procedure.

2.7 The Lifting Operations and Lifting Equipment Regulations 1998 and Approved Code of Practice L113: Policy number 671 - Lifting operations and lifting equipment procedure.

2.8 The Personal Protective Equipment at Work Regulations 1992 (second edition 2005) (as amended) and Guidance L25: Policy number 617 - Personal protective equipment at work procedure.

2.9 The Provision and Use of Work Equipment Regulations 1998 and Approved Code of Practice L22: Policy number 598 - Provision and use of work equipment (acquisition of new machinery and use of work equipment).

2.10 The Health and safety (Display Screen Equipment) Regulations 1992 as amended by the health and safety (Miscellaneous Amendments) Regulations 2002: Policy number 422 - Display screen equipment (DSE) procedure.

2.11 The Regulatory Reform (Fire Safety) Order 2005 and associated guidance issued by Communities and Local Government (CLG) based on premises usage.

2.12 The Control of Asbestos at Work Regulations 2002 and associated approved codes of practice: Policy number 564 - Procedure for managing asbestos in LFC premises.

2.13 The Dangerous Substances and Explosive Atmospheres Regulations 2002.

2.14 The Work at Height Regulations 2005.

2.15 Successful Health and Safety Management HSG65.

2.16 Five steps to Risk Assessment HSE publication INDG 163 (rev1) 5/98 and five steps to Risk Assessment case studies HSG183.

2.17 All other associated regulations, policies and procedures or work instructions.

Note*:* This policy does not address dynamic risk assessment for information on this topic see LFB Policy number 985 - Operational safety management - knowledge skills and competence – NOG.

3 Definitions

Hazard: is a potential source of harm.

Risk: is the likelihood that the harm arising from a particular hazard could be realised. The extent of the risk will depend on:

- the likelihood of the harm occurring;
- the potential severity of that harm, i.e. of any resultant injury or adverse health effect;
- the population that might be affected by the hazard, i.e. the number and type(s) of people who might be exposed.

Risk assessment: is the qualitative or quantitative evaluation of the chance that a hazard will cause harm.

Human factors: aspects of work that may either influence or be influenced by human behaviours in a way that affects health and safety.

Suitable and sufficient: A risk assessment will be **suitable** and **sufficient** if it enables the employer to identify all risks arising from a work activity. The risk assessment should be appropriate to the nature of the work, as the activity becomes more hazardous the assessment should become more detailed. The assessment should identify the period it will remain valid/require review; who will be exposed to the hazard; how they might be exposed to the hazard and the necessary control measures to comply with any statutory provision.

Reasonably practicable: the likelihood and gravity of injury or ill health balanced against the physical and practical problems of preventions and their cost i.e. costs in terms of finance, time and effort.

Safe system of work (SSW): A safe system of work is a procedure that results from a systematic examination of a working process, and the production of a risk assessment, designed to control hazards and risks by elimination or some other suitable method (see also step 3 of Appendix 1).

HSE: Health and Safety Executive

ACoP: Approved Code of Practice

CoSHH: Control of Substances Hazardous to Health

Health, Safety and Welfare Impact Assessment (HSWIA): The HSWIA should be completed for all new policies and procedures, new equipment and new projects. Completing the HSWIA will identify the requirement to complete a written risk assessment and/or to consult formally on health and safety matters through BJCHSW where this is required.

BJCHSW: Brigade Joint Committee for Health, Safety and Welfare

4 Procedure

Legislation

4.1 This policy takes account of all relevant legislation, guidance and documents identified in section 2 above.

Responsibilities

Assistant Director/Commissioner

4.2 The Assistant Director/Commissioner or persons nominated by the Assistant Director/Commissioner are responsible for ensuring that the requirements of this policy are implemented and that managers have sufficient resources, information and training to enable them to discharge their health and safety duties at locations under their responsibility (reference 2.1, 2.2 and 2.15).

4.3 This includes risk assessments for:

- Tasks and activities undertaken by LFB staff and contractors working on behalf of the LFB.
- Equipment owned, hired, leased and used by the LFB.
- LFB office workstations and display screen equipment.
- Substances with the potential to cause harm.
- Specific tasks relating to individuals with temporary or permanent disabilities.
- New or expectant mothers.
- Young people and visitors.

4.4 Heads of service have the overall responsibility for coordinating the management of risk assessments. This includes:

- The issue of new risk assessments.
- Adapting generic risk assessments to the tasks actually undertaken (NB. Policy risk assessments and a number of generic risk assessments are available on Brigade Wide Documents and can be access through the Health and Safety pages on the intranet via Operations > Health and Safety > Risk Assessment).
- The progression, development and implementation of risk assessments.
- The provision of specialist and/or technical advice as appropriate to the circumstances.
- The review of risk assessments.
- Monitoring of the risk assessment process including evaluating the effectiveness of control measures.
- Where risk assessments have been completed for new policies and procedures, new equipment or new projects to also complete a Health, Safety and Welfare Impact Assessment (HSWIA) to identify whether there is a requirement to consult with staff through BJCHSW
- Deciding on the suitability of higher level control measures and the authorization of control measures which are beyond the remit of local managers.
- Document control systems.

4.5 All heads of services are responsible for ensuring that arrangements are in place to implement the controls contained within risk assessments, policies and procedures within their sphere of responsibility to ensure organisational compliance.

Managers

4.6 Risk assessment is a management responsibility. Managers must identify all activities which involve a risk assessment and must ensure that personnel under their control receive suitable information, instruction and training regarding the assessment of risk and about the precautions being taken to protect them (reference 2.1 – 2.16 inclusive).

4.7 Managers must ensure that individuals required to undertake risk assessments have an appropriate level of skill and sufficient knowledge of the activity to carry out the risk assessment. Managers shall support the risk assessment process and, on completion, they are to verify that the risk assessment is suitable and sufficient (reference 2.2).

4.8 Managers must ensure that any action plans arising from risk assessments are prioritised and progressed in order to ensure that suitable and sufficient control measures can be implemented to control risks within appropriate timescales. Where there are difficulties associated with progressing action plans, managers must take all reasonable steps to ensure that solutions are implemented in a manner that can be judged to be 'reasonably practicable' in the circumstances (reference 2.2).

4.9 Managers must understand that the production of an understandable and logical risk assessment is not an end in itself. It is more important to develop appropriate control measures using the hierarchy of controls and incorporate these into orders and instructions that support practical safe systems of work that can be effectively implemented when the circumstances arise (reference 2.2).

4.10 Managers who receive equipment via the procurement process must ensure that, where required, the equipment has been subject to a suitable and sufficient generic risk assessment and that the assessment is reviewed and made accessible together with procedural and training notes to support safe systems of work. This must be in place before the equipment is brought into use (reference 2.1 – 2.16 inclusive).

4.11 Managers are responsible for the correct implementation of all control measures. This responsibility can be met through the active monitoring of activities, routine inspections and auditing (reference 2.1 and 2.2). In particular, managers must ensure:

- Safe systems of work are being implemented effectively, are adhered to, and are appropriate.
- Safe techniques are being employed.
- Refresher training that covers the principles of risk assessment is part of local training plans.

4.12 Managers must obtain and review the risk assessments provided by third parties prior to attending an external event to ensure they are suitable and sufficient. Significant risks and associated control measures must from part of the safe system of work and must be communicated to the teams attending the event. This is to ensure adequate co-operation and co-ordination between all parties involved in safeguarding visiting members of the public and participating team members against potential health and safety risks.

Employees

4.13 All employees have a responsibility to ensure that they comply with training, information and instructions relating to risk assessments, policies, procedures and safe systems of work. Employees will cooperate, participate and contribute to the development of risk assessments and report any deficiencies in assessments or procedures to their line manager. It is a legal requirement that employees;

- use equipment in accordance with training and instructions and;
- inform managers about health and safety shortcomings.

Managers with specific responsibilities

Assistant Commissioner, Operational Policy

4.14 The Assistant Commissioner, Operational Policy has the overall responsibility for the identification of operational risks. The Assistant Commissioner, Operational Policy has overall responsibility for ensuring that appropriate risk assessments are undertaken to develop operational policies, procedures and safe systems of work.

4.15 The Assistant Commissioner, Operational Policy must ensure that suitable and sufficient information is provided to those responsible for developing training solutions and that information and instruction provided to operational staff is sufficient to enable operational duties to be undertaken in a safe and effective manner.

4.16 The Assistant Commissioner, Operational Policy must ensure that details relating to information, training and instruction for operational staff are recorded and that master copy documentation is retained centrally.

Head of Procurement

4.17 The Head of Procurement must establish and maintain an appropriate procedure to ensure that the generic risks associated with all equipment (as defined within PUWER) and substances (as defined by the COSHH Regulations) are assessed effectively prior to distribution and use within the organisation. Specifically, the Head of Procurement must ensure that suitable and sufficient generic risk assessments have been undertaken relating to equipment which takes account of the regulations relating to noise, vibration, lifting operations, manual handling and personal protective equipment.

4.18 The Head of Procurement must ensure that all details relating to risk assessments generated via the procurement process are retained centrally. Copies of documentation are to be passed to HSS for inclusion on the HSS website.

4.19 Equipment and substances may be purchased **only** with the prior knowledge, approval and consent of the LFB Head of Procurement.

Assistant Director, Training and Professional Development

4.20 The Assistant Director, Training and Professional Development will ensure that all training solutions reflect the requirements of policies and procedures developed within the organisation. Should it be identified that there are shortcomings within a policy or procedure meaning that it cannot be implemented effectively, the head of department with responsibility for the activity must be notified and an urgent review of the policy or procedure requested.

4.21 The Assistant Director, Training and Professional Development must ensure that training details are recorded and that master copy documentation is retained centrally.

Assistant Director, Health and Safety

4.22 The Assistant Director, Health and Safety will maintain a team of professional Health and Safety Advisers to enable the organisation to meet its statutory obligations for providing competent health and safety advice relating to the production of risk assessments and the development of safe systems of work.

Assistant Director, Strategy and Risk

4.23 The Assistant Director, Strategy and Risk has overall responsibility for the LFB risk management framework at a strategic level. This includes the risk management system and essential components such as the Corporate Risk Register, Departmental Risk Registers, Business

Continuity Plan and the reporting of risk information from key governance projects. The Assistant Director, Strategy and Risk maintains a small team of professional risk specialists to advise managers on their risk management responsibilities (see references 2.17 and 2.18).

General responsibilities

Safety representatives

4.24 The risk assessment process is intended to be practical and should take account of the views of staff. Safety representatives are in a key position to assist with the risk assessment process and with decisions about preventive and protective measures. The LFB encourages effective communication and consultation and safety representatives are encouraged to support risk assessors by sharing their expertise about hazards identified and solutions to control them.

Risk assessors

4.25 Staff involved in risk assessments should have sufficient skills and knowledge of the activity being assessed (see paragraph 4.9) and should be familiar with the principles of risk assessment (reference 2.16). Advice regarding recording and administrative procedures can be sought from the Health and Safety Services team via the Health and Safety Helpdesk (extension 89100).

4.26 Personnel undertaking risk assessments will be given appropriate information, instruction, training and guidance to carry out risk assessments. Basic risk assessments can be developed by an individual; however, a complex range of issues that needs to be examined from a number of perspectives may involve a 'team approach'.

4.27 Risk assessors must ensure that risk assessments are suitable and sufficient and take account of relevant legislation, LFB policies and procedures. The finding of risk assessments must be communicated effectively to those responsible for developing policies, procedures, training, solutions and/or selecting equipment. Risk assessments will be validated through management consultation as appropriate and the names of all persons involved/consulted about a risk assessment must be recorded. An appropriate review date will be included with all risk assessments.

4.28 Some risk assessments are of a specialist nature (e.g. noise assessments) and require a specialist to undertake them. Where specialist advice is needed, guidance and support should be sought from managers/individuals with specific technical knowledge, or Health and Safety (see paragraph 4.24).

4.29 Risk assessors developing action plans, recommendations and control/preventive measures must be aware of the importance of seeking views/authorisation at a higher managerial level. In such cases discussions with appropriate managers should be held, involving Health and Safety department if appropriate, to consider the implications of solutions.

4.30 Risk assessments and information relating to safe systems of work should be available for all relevant personnel at a local level and, where appropriate, centrally to enable wider accessibility.

Review of risk assessments

4.31 Risk assessments must be reviewed to ensure they remain current and relevant. There are four occasions when a risk assessment should be reviewed:

- **Periodically** – Between one year (for high risk activities) and five years (for low risk activities). However, if there is uncertainty regarding a new process or activity it may be appropriate to have its first review within six months to ensure controls are both appropriate and effective.
- **Change**: Where there is a significant change (usually prompting the review or development of a policy or procedure), this requires a full revision to the risk assessment.

- **Safety**: When the outcome of a safety event is outside the expectation of the risk assessment.
- **New information**: When new information materialises that could affect existing policies.

Document control

4.32 Risk assessments must be completed using LFB proformas.

4.33 Risk assessments must be signed off by an appropriate manager and any subsequent action plans sanctioned at an appropriate level.

4.34 Risk assessments must be monitored periodically, reviewed and subject to audit.

Appendix 1 - Risk assessment

General

1 A risk assessment is an important step in protecting workers and the organisation as well as complying with the law. It helps to focus on the risks with the potential to cause real harm. In many instances, straightforward measures can readily control risks, for example ensuring spillages are cleaned up promptly to prevent people slipping or keeping cupboard drawers closed to ensure people do not trip.

2 There is no single way to design and carry out a risk assessment but where there is a similarity of activities, hazards and risks (even if present in different physical areas or workplaces) a generic risk assessment can be made which covers their basic features; what is vital is that the task actually being undertaken is fully addressed by the generic risk assessment or more specific risk assessments will be required. In the LFB, risk assessments should be undertaken using appropriate proformas.

3 The law does not expect the elimination of all risks, but people should be protected as far as is "reasonably practicable". This procedure provides guidance on how to achieve that.

What is risk assessment?

A risk assessment is a careful examination of what could cause harm so that a decision can be taken to decide whether enough precautions are in place or whether more needs to be done to prevent harm. The HSE recommends a five step approach.

How to assess risks

(a) Identify the hazards associated with the activity being examined.

(b) Decide who might be harmed and how harm could occur.

(c) Evaluate the risks and decide on precautions and preventive measures.

(d) Record the findings and ensure preventive measures are implemented.

(e) Review the assessment and update if necessary.

(f) When thinking about the risk assessment, remember:

- a **hazard** is anything that may cause harm, such as chemicals, electricity, working from ladders, an open drawer, etc.;
- the **risk** is the chance, high or low, that somebody could be harmed by hazards, together with an indication or how serious the harm could be.

Step 1: Identify the hazards

- First you need to decide how people could be harmed.
- Examine the activity and consider what could reasonably be expected to cause harm
- Discuss with employees and their representatives to take account of their views**.** They may have identified hazards and risks that are not immediately obvious.
- Check relevant instructions documents**,** data sheets, policy and procedural information.
- Consider long-term hazards to health (e.g. high levels of noise) as well as immediate safety hazards.
- Consider any hazards as a result of human factors that may impact how the task is completed see Appendix 2

Step 2: Decide who might be harmed and how

For each hazard you need to be clear about who might be harmed.

Remember:

- some workers have particular requirements, e.g. new and young workers, new or expectant mothers and people with disabilities may be at particular risk
- cleaners, visitors, contractors, maintenance workers etc., who may not be in the workplace all the time.
- members of the public and others that could be affected by activities.
- ask your staff and co-workers if they can think of anyone that might be affected.

In each case, identify how they might be harmed, i.e. what type of injury or ill health might occur.

Step 3: Evaluate the risks and decide on precautions/preventive measures

Having identified the hazards, it is important to decide what to do about managing and controlling the hazards. The law requires that everything "reasonably practicable" is done to protect people from harm.

Examine what the LFB is already doing; think about the controls in place and how the work is organised.

Consider:

- Can the hazard be eliminated altogether?
- If not, how can the risks be controlled effectively?
- How any risk attributed to human factors can be minimised or eliminated altogether (see appendix 2 for further details)

To manage and control risks, a number of principles can be applied:

- consider a less risky option (e.g. switch from using a noisy item of equipment to a quieter item of equipment);
- prevent access to the hazard (e.g. cordon control);
- organise work to reduce exposure to the hazard (e.g. regularly rotate individuals and teams operating in a noisy environment);
- issue personal protective equipment (e.g. clothing, footwear, goggles etc.)

Step 4: Record your findings and implement them

A risk assessment must be 'suitable and sufficient'. It is important to show that:

- an effective examination of the activity has been made;
- human factors have been considered (see appendix 2)
- employees and staff representatives have been consulted;
- the significant hazards have been considered in the context of the type and number of people who could be affected;
- the precautions or preventive measures are reasonable, and the remaining risk is low;

The phrase 'suitable and sufficient' is not defined in the Management Regulations 1999 but the supporting ACoP to the Regulations states that 'The level of risk arising from the work activity should determine the degree of sophistication of the risk assessment'.

If there are numerous improvements that could be made, a plan of action detailing priorities should be prepared.

An effective action plan usually includes:

- straightforward improvements that can be actioned quickly, perhaps as interim arrangements, until other more robust controls can be put in place;
- long-term solutions to risks most likely to cause accidents or ill health;
- long-term solutions to risks with the most serious potential consequences;
- arrangements for training employees on the residual risks and arrangements for controlling these;
- auditing arrangements to ensure that the control measures remain effective;
- clear responsibilities stating who will lead on what action, and by when.

Step 5: Review your risk assessment and update if necessary

Few activities and workplaces stay the same. New equipment, substances and procedures will be introduced that could involve new hazards. It makes sense therefore, to review risk assessments on a regular basis.

During the review process, re-examine the risk assessment and apply a critical approach. Consider whether any changes have been made in procedures, processes, activities. Are there improvements that need to be made? Have employees identified any problems? Have lessons been learnt from accidents or near misses? If at any point there has been a significant change re-examine the risk assessment and ensure that it is updated.

Sources of information

Risk assessors should seek guidance and support from line managers, individuals with specific technical knowledge and team members of Health and Safety (Helpdesk extension 89100), as appropriate to the particular task.

A number of risk assessments are stored in Brigade Wide Documents.

Appendix 2 - Human Factors

Human Factors in Risk Assessment – Brigade Guidance

Introduction

The term 'human factors' broadly describes the aspects of work that may either influence or be influenced by human behaviours in a way that affects health and safety. The term is often used interchangeably with the term 'ergonomics', which describes the interactions between humans (both psychological and physiological) and other elements of a system, including work equipment and operational procedures.

Human factors/ergonomics is concerned with what staff are being asked to do (the work task), who is doing it (the individual and their competence to undertake the task) and where they are working (the organisation and its culture), all of which can be influenced by the wider societal concerns, both local and national.

The HSE define 'human factors' as the "environmental, organisational and job factors, and human and individual characteristics, which influence behaviour at work in a way which can affect health and safety". The HSE describe the scope of what they mean by human factors to include organisational systems and is considerably broader than traditional views of human factors/ergonomics.

The HSE definition includes three interrelated aspects that must be considered: the job, the individual and the organisation:

- **The job:** including areas such as the nature of the task, workload, the working environment, the design of displays and controls, and the role of procedures. Tasks should be designed in accordance with ergonomic principles to take account of both human limitations and strengths. This includes matching the job to the physical and the mental strengths and limitations of people. Mental aspects would include perceptual, attentional and decision-making requirements.
- **The individual:** including their competence, skills, personality, attitude, and risk perception. Individual characteristics influence behaviour in complex ways. Some characteristics such as personality are fixed; others such as skills and attitudes may be changed or enhanced.
- **The organisation:** including work patterns, the culture of the workplace, resources, communications, leadership and so on. Such factors are often overlooked during the design of jobs but have a significant influence on individual and group behaviour.

The goal of paying attention to 'human factors' is to enhance safety and comfort, reduce human error, improve productivity and to influence positive safety behaviours.

In practical terms these principles can be applied to the following workplace activities in Fire and Rescue Services (this list is not exhaustive):

(1) Recruitment and selection
Consideration should be given to human factors associated with job roles that would improve safety/health; e.g. emotional and psychological resilience, decision-making, and leadership

(2) Operational Policy and procedures (including incident command)
Consideration should be given to:

a. How policies and procedures are designed and recorded such that they provide clear and unambiguous safe systems of work and allow staff to make clear decisions, and

b. How policies take account of human factors including risk perception, decision making under pressure, the moral imperative etc

(3) Operational training

Consideration should be given to:

a. The 'safe person' principles i.e. competence, self-awareness, being observant and situationally aware, being decisive about hazard and risk and communication. After an initial safety/operational brief firefighters will need to make their own assessments and decisions generally in isolation of a broader supervisory framework. The 'safe person' concept is designed to ensure all staff are equipped to make the decisions they need to without compromising their own or others safety;
b. Decision-making. Some factors that may adversely affect decision making (e.g. stress/anxiety, information overload, decision traps, confirmation bias), particularly during dynamic incidents, and
c. Risk perception/risk tolerance/risk appetite/morale imperative. Individuals perceive risk differently and have different tolerance of risk to themselves and to others. External pressures to act can influence decision-making.

(4) Operational/Organisational learning

Consideration should be given to:

a. A system to identify and respond to operational learning locally and nationally, and
b. Operational assurance, including observations of safety behaviours on the incident ground. Fire and Rescue Services deliver a significant amount of operational training to staff and have a very broad procedural frameworks. FRSs recognise that sometimes individual behaviours on the incident ground do not match expectations in policy and the reasons why are not easily identified from incident monitoring or safety event reporting systems.

Risk assessment of human factors

When we address human factors in relation to health and safety, we're aiming to optimise human performance and reduce human failures. In order to do this we need to understand the human role in the work task or activity we are risk assessing, including giving consideration to how human failure may occur during that task/activity.

Understanding the task:

Identifying the potential for human failure in preventing an accident or exposure to substances hazardous to health requires having a thorough understanding of the task the person is carrying out.

A thorough understanding of the task can contribute to:

- Accurate and workable procedures;
- Assuring the competence of employees;
- Determining appropriate staffing levels;
- Workload analysis;
- Design of workstations, plant and control systems;
- Person specifications for recruitment;
- Human error analyses as part of risk assessment; and
- Allocation of function i.e. identifying whether a task would be more accurately and efficiently run by a machine (e.g. monitoring system states) or a person (e.g. decision making).

Task Analysis is based on observations of the task and may include physically demonstrating the task using relevant plant or equipment in the environment/location where the task is carried out.

Task analysis may consist of an experienced person (e.g. a subject matter advisor (SMA)) demonstrating in a sequential manner how the task is carried out with colleagues. Each step, no matter how minor (e.g. pressing a switch) or effortful (e.g. walking to the appliance to collect a tool), is demonstrated and considered. This may include communicating with other people, retrieving information from computers or display systems and making decisions on the information retrieved.

In addition to the demonstrator (SMA), it may also be helpful to have different stakeholders/ specialists involved in the task analysis, which may include an engineer and/or health and safety professional in the team. As the procedure is demonstrated, the team should identify what might go wrong if a particular step is not carried out or incorrectly carried out.

During the task analysis each step in the task should be noted, along with hazards and risks to staff including the potential for human failure, and anything which the team believe might make that step more or less easy to perform (e.g. poor lighting, noise, difficult to reach locations).

To be most effective, the task analysis must be done in the location and on the plant or equipment where the task is carried out in reality. If specific personal protective equipment is required for the procedure, then locating and putting on the PPE should be demonstrated at the appropriate point, and the demonstration continued wearing the PPE. This helps to identify actions which might be made difficult by items of equipment or clothing, e.g. gloves, breathing apparatus etc.

Likewise, if specific tools or equipment are required for the task, then they should be fetched at the appropriate stage in the procedure from their usual place of
storage. This helps to identify problems with accessing the necessary equipment.

However, the equipment or process does not need to be running at the time, and it may be unsafe to conduct a walk-through/talk-through on activities where distraction or delayed action could contribute to an accident or exposure.

At the end of the task analysis the team will have a step-by-step list of the actions carried out and decisions made in a particular activity, know which of those are safety critical, and have an understanding of the factors which might affect human performance in carrying them out.

For most activities this level of task analysis will be sufficient to identify the potential for human failure to contribute to an accident. However, if you have identified through risk assessment that an activity is key to preventing a major accident, a fatal accident or a potentially fatal exposure then a more involved and structured analysis may be appropriate. In these cases it will be appropriate to seek further advice from the Health and Safety team.

Identifying the potential for human behaviours to impact safety and/or for human failure to contribute to risk:

A range of factors, labelled Performance Influencing Factors (PIFs) by the Health and Safety Executive (HSE), may influence human performance when completing work tasks. The factors are drawn from the characteristics of the job, the individual and the organisation. Optimising PIFs will reduce the likelihood of all types of human failure.

Performance Influencing Factors (PIFs) (this list is NOT exhaustive):

Job factors:

- Clarity of signs, signals, instructions and other information
- System/equipment interface (labelling, alarms, error avoidance/ tolerance)
- Difficulty/complexity of tasks
- Routine (repetitive) or unusual (infrequent) tasks
- Divided attention

- Procedures inadequate or inappropriate
- Preparation for task (e.g. permits, risk assessments, checking)
- Time available/required
- Resources available/required
- Tools and equipment are appropriate, and available, for the task
- Communication, with colleagues, supervision, contractor, other
- Working environment (noise, heat, space, lighting, ventilation, contamination)

Person factors:

- Physical fitness and capabilities
- Competence to deal with the task
- Fatigue (acute from temporary situation, or chronic)
- Stress/morale
- Work overload/underload
- Motivation vs. other priorities

Organisation factors:

- Work pressures e.g. moral imperative vs. firefighter safety
- Level and nature of supervision and leadership
- Communications
- Staffing levels (available resource)
- Peer pressure
- Clarity of roles and responsibilities
- Consequences of failure to follow rules/procedures
- Effectiveness of organisational learning (learning from experiences)
- Organisational or safety culture, e.g. everyone breaks the rules

Identifying proportionate control measures:

Identify appropriate control measures which prevent or mitigate the human failures you have identified.

Where possible you should aim to design out the potential for human failure and design in the potential for recovery should human failure occur. This includes design of the vehicles, equipment, clothing, safe system of work, environment and the task itself, taking into account the needs, competence and capabilities of staff. Over-reliance on procedures and training are unlikely to be sufficient to control all human factors risks on their own.

Review:

Check that your control measures work. Regularly review your risk assessment to see if any further improvements can be made.

Document history

Assessments

An equality, sustainability or health, safety and welfare impact assessment and/or a risk assessment was last completed on:

EIA	02/04/09	SDIA	L - 02/04/09	HSWIA	NA	RA	NA

Audit trail

Listed below is a brief audit trail, detailing amendments made to this policy/procedure.

Page/para nos.	Brief description of change	Date
Throughout	Operational Policy replaced by Operational Procedures in line with changes made by the Top Management Review.	11/10/2011
Throughout	Policy reviewed as current. Head of training replaced by Head of Human Resources and Development.	10/10/2012
Page 11	'Subjects list' table - template updated.	14/01/2015
Throughout	Minor updates to contact details and sources of information.	09/11/2015
Throughout	Amendments to job titles in accordance with Top Management Structure. Updated to include information on HSWIA. Policy and Appendix updated to provide information on location of policy risk assessments in Brigade Wide Documents.	19/07/2017
Throughout	Changes made to team and department names to reflect the change in organisational structure and governance (the abolition of the London Fire and Emergency Planning Authority, now replaced with the London Fire Commissioner).	06/12/2018
Throughout	Minor changes made throughout.	05/01/2021
Throughout	Cross reference links updated.	31/08/2022
Throughout	Reviewed as current with new wording added in paragraphs 2.17 and 4.12.	12/09/2023
Page 12	"Human factors" added as Appendix 2.	28/02/2025

Subject list

You can find this policy under the following subjects.

Hazards	Health and safety
Risk assessments	

Freedom of Information Act exemptions

This policy/procedure has been securely marked due to:

Considered by: (responsible work team)	**FOIA exemption**	**Security marking classification**