FIRE SAFETY
A GUIDE TO SAFELY MANAGING FIRE

GOOD PRACTICE GUIDANCE | FIRE MANAGEMENT

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1.0   INTRODUCTION

1.1   Purpose

This code of practice is intended for use by member companies of the Textile Services Association (TSA). The code of practice outlines the necessary protocols and measures required to ensure fire safety on TSA member sites and is intended to minimise the risk of fire as well as ensure a rapid and appropriate response to protect people and property.

It seeks to provide a framework that will support the Responsible Person (employers, owners and controllers of business premises) in delivering their legal duties imposed upon them by The Regulatory Reform (Fire Safety) Order (RRFSO), The Health and Safety at Work Act and its various statutory instruments.

1.2   Explanatory note

Within the text of this document are included extracts of the RRFSO, which is the principal legislation covering fire safety in non-domestic premises. This is supplemented with industry specific guidance collated from the wide-ranging experience and knowledge within the TSA membership and other sources. In the case of any ambiguity or perceived conflict the RRFSO has precedence.

1.3   Benefits of complying with this Code of Practice

Compliance with this code of practice will reduce the risk of a fire occurring and developing at your premises and while it is recognised that the risk of a fire starting cannot be eradicated the code of practice will help to minimise the impact of a fire if one does occur.

The safety of your employees will be enhanced and the buildings and equipment will be better protected. This in turn will lead to a wider improvement in standards of fire safety across the industry and in particular within the Textile Services Association members.

The industry hopes to see a reduction in fire incidents by compliance with this code of practice and leading to a more favourable insurance climate.

2.0 GENERAL FIRE SAFETY RESPONSIBILITIES

2.1   General duties of employees at work

1. Every employee must, while at work:
2. Take reasonable care for the safety of themselves and of other relevant persons who may be affected by their acts or omissions at work
3. Co-operate with their employer so far as is necessary to enable their employer's duty or requirement to be performed or complied with
4. Inform the employer
   a. of any work situation which represents a serious and immediate danger to safety
   b. of any matter which represents a shortcoming in the employer's protection arrangements for safety

2.2   Responsible person

Within each business the Responsible Person is the person in overall control of the premises. In most cases this will be the owner, managing director or person of similar standing.

The Responsible Person has a general duty to ensure, so far as is reasonably practicable, the safety of employees, a general duty to non-employees to ensure that premises are safe and a duty to carry out a risk assessment.

As the Responsible Person you must have in place:

- measures to reduce the risk of fire and fire spread.
- suitable means of escape.
- measures for ensuring the means of escape are always available for use
- appropriate means for fighting fires.
- means for detecting fire and giving warning in case of fire.
- arrangements for action to be taken in the event of fire on the premises, including—
  o the instruction and training of employee.
  o measures to mitigate the effects of the fire.

2.3 Competent Person(s)

Ensuring effective fire safety that delivers against all requirements needs some level of expertise. As Responsible Person, if you do not have the expertise or time to do the fire risk assessment yourself. You will also need to appoint a 'competent person' to help, for example a professional fire safety risk assessor.

Because of the inherent fire risks associated with processes within the laundry industry, we strongly advise that a suitable competent person or persons are appointed. Suitable qualifications may include:

- NEBOSH Level 3 In fire safety
- Level 3 fire risk assessment or fire safety
- Membership of the IFE (Institute of fire engineers)
- Membership of the IFSM (Institute of fire safety managers)
- Individuals who are included on an approved competence register at tier 2 or 3.
- Companies who are BAFE approved

Due to the nature of TSA members operations, it is advisable that a third party competent individual or company is appointed to assist you with your fire risk assessments.

Depending on the size and complexity of your organisation you may need to consider the appointment of other people who are suitably competent to help deliver less technical aspects of fire safety with you.

2.4 Risk assessment

You must ensure that a suitable and sufficient assessment of the fire risks is conducted. This must identify the precautions required to deliver the duties identified above.

Hazardous substances must have a risk assessment in accordance with the Control Of Substances Hazardous to Health regulations. Where this indicates a fire hazard, this must be included on the fire risk assessment and suitable controls must be put in place to mitigate the risks.

If you employ young or vulnerable persons, this should also be included in the fire risk assessment and take account of their lack of experience and risk perception.

Risk assessments must be regularly reviewed to ensure that they remain effective. This will be following any relevant changes, following any relevant incident and at least once a year.

Changes that should initiate a review of the fire risk assessment include the introduction of new machinery, new or amended walkways, changes to the use of an area, changes in working hours, climate changes.

NB: A review is intended to confirm that the risk assessment is still appropriate or needs amendment. For many changes the risk assessment may remain suitable and sufficient, but it is important to check.

It is advised that a 'new' FRA should be commissioned at least once every two years as best practice and not to rely on an FRA for longer than this. The FRA should be reviewed by third party competent assessors or internally competent person/s at least annually or whenever there are significant changes to the nature of the site, activities, hours.

2.5   Principles of prevention to be applied

For any hazard identified the following principles of prevention must be applied in order of priority:

- avoiding risks
- evaluating the risks which cannot be avoided
- combating the risks at source
- adapting to technical progress
- replacing the dangerous by the non-dangerous or less dangerous
- developing a coherent overall prevention policy which covers technology, organisation of work and the influence of factors relating to the working environment
- giving collective protective measures priority over individual protective measures
- giving appropriate instructions to employees.

3.0   FIRE SAFETY MANAGEMENT

3.01   Fire Prevention Plan (FPP)

All members of the TSA will ensure that the following requirements are met as part of their fire prevention plan (FPP):

a) Provide employees with clear and relevant information on the risks to them identified by the fire risk assessment, about the measures taken to prevent fires, and how these measures will protect them in a fire.

b) Consult employees (or their elected representatives) about nominating people to carry out roles in connection with fire safety and about proposals for improving the fire precautions.

c) Inform non-employees, such as temporary or contract workers, of the relevant risks to them, and provide them with information about who are the nominated competent persons, and about the fire safety procedures for the premises.

d) Co-operate and co-ordinate with other responsible persons who also have premises in the building where applicable, inform them of any significant risks you find, and how you will seek to reduce/control those risks which might affect the safety of their employees.

e) Establish a suitable means of contacting the emergency services and provide them with any relevant information about dangerous substances.

f) Provide appropriate information, instruction and training to your employees, during their normal working hours, about the fire precautions in your workplace, when they start working for you, and from time to time throughout the period they work for you. (see also section 4.0 staff training and awareness)

g) Ensure that the premises and any passive or active equipment provided in connection with firefighting, fire detection and warning, or emergency routes and exits are covered by a suitable system of maintenance and are maintained by a competent person in an efficient state, in efficient working order and in good repair.

(See Appendix 3 for definitions relating to alarm systems)

3.02 Firefighting and fire detection

Appropriate arrangements must be determined having regard to the dimensions and use of the premises, the equipment contained on the premises, the physical and chemical properties of the substances likely to be present and the maximum number of persons who may be present at any one time

The Responsible Person must ensure that:

a) The premises are, to the extent that it is appropriate, equipped with appropriate firefighting equipment and with fire detectors and alarms

b) Any non-automatic firefighting equipment so provided is easily accessible, simple to use and indicated by signs.

c) Due to the nature of TSA members operations, it is a requirement that all sites should have a level of automatic fire detection. The recommended specifications identified below are in line with BS5839 part 1 and risk profiles are derived from BS9999.

- **Office and clerical (A2 Fire profile):** The minimum requirement for office spaces (A2 profile) are automatic Fire Detection (AFD) to a minimum of a category L3 detection system, but in some cases, this would require upgrading to a category L2 system if kitchens and plantrooms and higher risk rooms are located off the escape corridors. This system will include a fire alarm system comprising a fire alarm panel, smoke /heat detection, manual call points and sounders throughout the building.

- **Production Area and higher risk rooms (A3 profile):** The minimum requirement for production areas (A3 profile) are automatic fire detection (AFD) to a minimum of a category L2, however for sites equipped with a fire suppression systems e.g. sprinklers, this recommendation can be reviewed to category L4 in common area / escape routes with the addition of an L5 installation in higher risk rooms where there is the potential for a 'lower' temperature fire to originate and fail to set off the sprinkler systems efficiently. Areas requiring this additional protection will be identified during risk assessment or fire alarm system installation.

d) Fire Suppression Systems (Sprinklers)

   The installation of fire suppression systems (including Sprinkler systems) will reduce the impact of a fire and will protect the building and equipment from the effects of a fire by reducing the likely spread and ultimate severity of the fire.

A commercial sprinkler system is designed to provide automatic fire suppression in the event of a fire, thereby minimizing damage and ensuring the safety of occupants and property protection. Sprinkler systems can be installed as follows:

- **Building wide**
  Installed throughout the building and designed to activate in response to a fire starting in any area of the property. This option is very expensive to install and requires significant maintenance in line with manufacturer's instructions.

- **Localised**
  Installed in specific high risk areas such as above hot equipment or areas utilised to store 'hot' product. These systems will require significant maintenance in line with manufacturer's instructions.
  Installations like this can protect certain high risk areas within the building for example within containers where spontaneous combustion may be a concern.

- **Integrated within equipment**
  Installed by manufacturer within high risk 'hot' equipment, these can be very effective at preventing fires from spreading from the point of origin within specific equipment.

Sprinkler systems are expensive to install and to maintain but should be considered in buildings where high risk products are processed or there are specific high risk areas. They must not be considered as an alternative to an effective fire detection alarm system.

e)   Manual Firefighting Equipment

Ensuring the availability and proper placement of manual portable fire extinguishers is a critical component of a fire safety plan. This section outlines the types, locations, and maintenance of fire extinguishers within the office and operational areas of the industrial laundry, in compliance with UK fire safety regulations.

Manual fire extinguishers must be installed in accordance with BS5306, should be visually inspected each month and externally inspected by a competent person annually. Any servicing or replacement requirements should be identified on the annual inspection and once these have been addressed a certificate should be issued by the inspector and made accessible to all employees.

Tamper tags attached to extinguishers should be colour coded and replaced with a different colour following annual inspection to clearly identify that each has been checked. This should be arranged with the external inspection company. Displaying the colour coded tag on a picture along with the inspection certificate will make it clear which have been checked and highlight any missed.

Most portable fire extinguishers are intended to preserve life by enabling safe egress from a fire and to tackle very small fires only. If risk assessment indicates that additional firefighting capability is required on site, the Responsible Person must seek specialist guidance, ensure that such arrangements are appropriate and that the necessary competency is in place. Local Fire and Rescue, professional competent fire risk assessors, insurers and specialist trainers can be consulted to support this.

P50 Extinguishers – These extinguishers comply with BS EN 3-7 and are suitable for use as an alternative to conventional extinguishers in the UK. They have a lifespan of 10 years and do not require any third party maintenance during this period.

P50 extinguishers require an annual inspection which can be carried out by a member of staff to confirm that the extinguisher is undamaged and in working order. This inspection must be recorded in order to maintain the warranty and demonstrate compliance. It is also essential that prior to installing P50 extinguishers your insurance company must be informed of your intention to install them as failure to do so may invalidate your insurance.

3.03   Emergency routes and exits

The Responsible Person must ensure that routes to emergency exits from premises and the exits themselves are kept clear at all times. Emergency routes and exits must lead as directly as possible to a place of safety. In the event of danger, it must be possible for persons to evacuate the premises as quickly and as safely as possible.

The number, distribution and dimensions of emergency routes and exits must be adequate having regard to the use, equipment and dimensions of the premises and the maximum number of persons who may be present there at any one time.

   a) Emergency doors must open in the direction of escape.

b) Sliding or revolving doors must not be used for exits specifically intended as emergency exits.

c) Emergency doors must not be so locked or fastened that they cannot be easily and immediately opened by any person who may require to use them in an emergency.

d) Emergency routes and exits must be indicated by signs.

e) Emergency routes and exits requiring illumination must be provided with emergency lighting of adequate intensity in the case of failure of their normal lighting.

Maximum travel distances from any occupied location within the premises to final exits or places of safety must comply with the table below:

Escape routes	Maximum travel distances
Single direction of escape	12m in high fire-risk areas 18 m office areas 25m in normal fire-risk areas
Alternative means of escape	25m in higher fire-risk area 45m in normal fire-risk area

This applies for normal operations, cleaning and maintenance activities.

Safety inspections are paramount in maintaining escape routes that are open, clear and unobstructed.

It is also a requirement to ensure that all fire doors that form part of compartmentation are inspected for functionality and damage on a risk-based frequency, e.g. lesser used doors require less inspections as risk of wear and tear or damage is lower.

Risk definitions
- High risk:
  Areas where there is a risk of fires starting and spreading quickly without being detected, where there is a possibility that the escape route could be affected by smoke or fire before people are able to use them. Examples include:

- - Significant quantities of flammable materials
  - Significant quantities of combustible products / materials
  - Significant quantities of oxidisers e.g. peroxide
  - Ready sources of ignition such as heat producing machinery
- Normal risk:
  Areas away from large heat-developing equipment, general office and clerical environments.

3.04 Fire Safety Drills

The Responsible Person must ensure that regular drills are completed to test the preparedness of the site to deal with imminent danger. Drills must:

a) Be completed at least every 6 months in line with TSA advice to members.

b) Ensure that all shifts are included in at least one fire drill

c) Include all employees (notwithstanding absences)

d) Be recorded

e) Identify opportunities for improvement

f) Involve neighbouring sites as appropriate

g) Test manual and automatic systems for correct operation

Human behaviour on hearing a fire alarm is not always to do what is required, so drills are essential. It is good practice to complete a drill more than once per year per shift. In effect, this means that a site operating two shifts should have four drills per year or more. The unplanned or accidental activation of fire alarm can be used as an opportunity to record behaviours and identify improvements.

A sufficient number of competent persons must be nominated to implement emergency procedures in so far as they relate to the evacuation of relevant persons from the premises and ensuring that access to affected areas is strictly controlled.

3.05 Fire Evacuation plan

A fire evacuation plan must be developed and recorded. This plan should be published to all staff and periodically reviewed to ensure its continued effectiveness.

The evacuation plan must include:
- The roles and responsibilities of all staff
- Physical and mental capabilities of all people on site
- Escape routes and location of firefighting equipment
- Suitable liaison procedures with neighbouring sites where appropriate
- Interaction with fire authorities
- Specific equipment shut down processes
  - Examples:
    - Monorail overhead gantries to be stopped to prevent more material (fuel) from feeding into a fire.
    - Identify any specific equipment that should be left running to ensure that further fires do not start as a result of quick shutdowns e.g. shrink wrappers
    - Gas (manual or automatic) shutdown
- Site-specific considerations
  - Communication with neighbouring sites
  - Management of communal areas

3.06   Audit and assessment

A fire risk assessment (FRA) should ideally be undertaken by suitably competent external assessors to provide an objective commentary of fire risk, whereas an FRA review should be undertaken by either your retained external partners or internal resource with suitable experience and qualifications. (please refer to section 2.3)

Remedial actions resulting from the completion of an FRA will be addressed and resolved within a reasonable timescale in line with the recommended timescales within the report.

As identified in your Fire Risk Assessment, you should ensure you engage a Dangerous Substances, Explosive Atmosphere Regulations (DSEAR) assessment, e.g. bulk storage of fuels or oxidising agents.

3.07   New Client onboarding

When a new client is engaged it may be the case that their products will introduce new risks into your working environment, it is essential that every effort is made to understand these potential risks.

When a new client is 'onboarded' it is essential that the laundry understands the product that will be cleaned and a product document should be completed by the client detailing:

- Type of items to be cleaned
- Possible contaminants
- Fabric types
- Likely foreign bodies (vapes, lighters etc)
- Timescales – does the required turn around time allow for effective fire safety monitoring.

3.08 Record Keeping

The following records should be kept:
- Risk Assessment significant findings.
- Training records
- Maintenance of all process equipment
- Maintenance and inspection of all fire safety equipment
- Inspection and testing of all fixed equipment (electricity, gas, water)
- Chemical information pack to include details of chemicals on site including their location and quantity.
- Site map including location of high risk items (oxidising agents etc)

It is essential that these records are stored electronically in widely available cloud-based compliance systems, access controlled centrally, where they can be accessed easily if needed. Your organisation is required to be audit-ready at any time and ready to deal with emergencies should they occur, without potential fire loss of key control documents.

3.09 Fire Service Liaison

- Site will identify their nearest operational fire station
- Contact will be made to inform fire service of the operation and specifics of the site
- A fire information pack will be collated. This will comprise of:
  a. Plans of the site including:
     i. Final exits
     ii. Fire alarm zones
     iii. Location of water supply (hydrants, sprinklers Etc)

   iv. List of all flammable materials (inc Locations)

   v. List of and location of any oxidising agents

   vi. Chemicals

   vii. Gas Cylinders

   viii. Fuel Tanks

   ix. Drain maps

   x. Gas line infrastructure

  b. Names of any staff who may need assistance to escape. This includes copies of Personal Emergency Evacuation Plans – PEEPS. These should be in place for individuals with limited mobility, cognisance, vision or hearing.

3.10 Electric battery charging

- Charging of personal electrical equipment will not be permitted onsite.
- Charging of personal mobile phones will be permitted in line with the company policy.
- E-Bikes, scooters and other lithium ion battery powered items will be stored in a secured, agreed location only. This location should be segregated from the main business operation at a sufficient distance, defined in your fire risk assessment and company policies, to minimise the risk of fire spread in the event of the batteries igniting.
- Electric Vehicle Charging points where provided will be subject to:
  - Regular inspection
  - Periodic maintenance and testing
- The following rules will apply:
  - Any vehicles found to have damaged connection cables will be banned from using the chargers.
  - Only be used by persons authorised and trained to do so.
  - Vehicles will not be left to charge when premises are unoccupied
  1. For further guidance on the safe charging of electric vehicles refer to the following document:

Zurich Risk Insight: Electric Vehicle Charging

https://www.zurich.co.uk/news-and-insight/risk-insight-electric-vehicle-charging

3.11   Resources

The Responsible Person must ensure that adequate resources are available to deliver effective fire safety management. This will include both funding – e.g. to engage specialists such as fire risk assessors and time available for nominated individuals to fulfil their functions relating to fire safety. This commitment will be clearly stated within company health and safety and fire safety policies.

3.12   Information

Detailed information regarding risks and controls must be made available to all employees. This will include an assessment of the risks through to procedures to be followed in an emergency.

Information must also be provided to visitors and contractors to the site. This must include:
1. Planned fire alarm sounder tests
2. Actions to take if the alarm sounds
3. Any relevant major hazards on site that may affect them

3.13   Emergency Preparedness

Risk assessments should be used to identify potential emergency situations, including fires, chemical spills, and other hazards. This assessment will inform the development of emergency response plans. All shifts and weekend workers should be included in rehearsals of the fire evacuation process.

1. **Emergency Response Plan:**
Develop and maintain a comprehensive emergency response plan that outlines procedures for evacuation, communication, and coordination during an emergency. The plan should include:
    a. **Evacuation Procedures**
    Clear instructions for safe and orderly evacuation, including designated escape routes and assembly points.
    b. **Emergency Contacts**
    A list of emergency contacts, including local fire services, medical services, and key personnel.
    c. **Roles and Responsibilities**
    Defined roles and responsibilities for staff during an emergency, including fire wardens and first aiders.

2. Emergency Response:

Immediate Actions: In the event of an emergency, the following actions will be taken:

a. **Raise the Alarm**

   Activate the fire alarm system to alert all occupants.

b. **Evacuate**

   Follow the evacuation procedures to safely exit the building and proceed to the designated assembly points.

c. **Emergency Services**

   Contact emergency services immediately, providing them with detailed information about the situation.

d. **Communication**

   Ensure effective communication during an emergency, including:

   i. **Internal Communication**

      Use designated communication channels to coordinate the response and provide updates to staff.

   ii. **External Communication**

      Liaise with emergency services, local authorities, and other relevant parties.

e. **First Aid and Medical Assistance**

   Provide first aid and medical assistance as needed. Ensure that appointed/trained first aiders are available and that first aid kits are accessible.

4.0   STAFF TRAINING AND AWARENESS

4.1   Fire awareness training

a) All staff must be provided with fire awareness training during their induction period or at least within the first 2 weeks after joining the company
b) Fire awareness training will be repeated at least annually for all staff.
c) Records will be kept of fire awareness training to include attendee sign offs
d) Fire awareness material is available from the TSA

4.2   Fire Warden (Marshal) training

a) HSE guidance states that there should always be at least 1 fire marshal present for every 15 employees on site in high-risk environments and at least one fire marshal per 20 employees in normal risk environments.
b) Fire marshals will be located at their normal workstation with at least one fire marshal present in each working area on each floor of the building on each shift.

4.3   Fire Extinguisher use

a) Fire marshals must be trained in the correct and effective use of portable fire extinguishers.
b) Consideration should be given to including employees located in higher risk areas.

5.0   HOUSEKEEPING

5.1   Production 'shut down' process

At the end of the working day, all production equipment must be 'shut down' and monitored until such time as it is deemed safe to leave unattended.

This process must be:
a)   Site specific
b)   Include details of all equipment to be 'shut down'
c)   Include all materials or product which may still have residual heat or chemical reactions.
d)   Ensure that all production has been completed and all equipment is 'empty'.
e)   Include recorded temperature checks.
f)   Include a final sign off

5.2   Monitoring and processing of high-risk items

i.   High risk items for example: wipes, spa towels, items with oily residues must not be washed within 2 hours of a shut down or end of day. This will ensure that these items are not left unmonitored soon after drying. High-risk items should be prioritised for processing towards the beginning/middle of working patterns, e.g. bulk items of wipers and spa towels where risk is foreseeable of heat generation when premises are unoccupied.

ii.   All 'hot stock' must be segregated, ideally out of the production unit or outside if possible. Consideration should be given to installing sprinkler coverage in these segregation areas.

iii.   Consideration should be given to placing temperature monitoring devices such as probes in all crates containing high-risk products with foreseeable capability of heat generation.

iv.   Hot stock placed in segregation should be closely monitored, this monitoring can be enhanced with the use of thermal imaging technology.

v.   It is essential that segregation and monitoring of hot stock products is always maintained. Operational pressures and constraints should be mitigated as they can lead to a degradation in standard operating procedures (SOP).

5.3 Regular maintenance

a) For effective cleaning and maintenance of production equipment it will be necessary to schedule regular shutdowns of the business operation.

b) This must be at regular scheduled intervals which will be dependent on the normal operating procedure of the plant.

c) It may be possible to perform maintenance outside normal operating hours.

d) Where sites are operating a 24/7 shift pattern it will be necessary to shut all or part of the production down to facilitate maintenance.

e) Scheduled maintenance regimes (ppm's) must be adhered to and any postponements must be re-scheduled at the earliest opportunity.

f) All maintenance regimes must be recorded.

5.4 Maintenance of measures provided for protection of fire-fighters

Where necessary in order to safeguard the safety of fire-fighters in the event of a fire, the Responsible Person must ensure that the premises and any facilities, equipment and devices provided in respect of the premises for the use by or protection of fire-fighters are subject to a suitable system of maintenance and are maintained in an efficient state, in efficient working order and in good repair.

5.5 Workshops

Most sites will have a site workshop which will require close management and monitoring due to the nature of the operations carried out, precautions as follows:

a) Where possible workshops should be located within buildings separate from the main production and processing areas.

b) Any 'hot works' must be completed by competent persons working in accordance with company policies including hot works permits (Example 'hot works permit' included in appendices)

c) Storage of flammable materials should be minimised and only within suitable lockable flammable storage cupboards.

6.0   SOURCES OF HAZARDS AND RISK AND CONTROLS

Within the laundry industry there arise some common risks and some industry specific risks. This section provides guidance of how to deal with a number of these. The fire risk assessment will confirm which of these apply and may identify some additional risks.

6.1   Sources of Ignition

a) Electrical Equipment

   i.   Distribution Equipment must be maintained and inspected in accordance with BS7671 including EICR testing.

   ii.   Laundry process equipment will be maintained in line with manufacturers specifications, periodically maintained and cleaned to prevent build-up of waste materials.

   iii.   Portable electrical Equipment will be maintained in good condition and fit for purpose. Portable Appliance Testing (PAT) will be carried out on all such equipment in the workplace*

*Note - Portable appliance testing is not a legal requirement and its frequency is not mandated by regulations. It is commonly used to check that equipment is safe to use and help to meet the requirements of The Electricity at Work Regulations 1989. Testing frequency should be based on risk assessment. Many organisations opt for annual testing, however stationary IT equipment may be tested less frequently and hand-held portable equipment more frequently dependent on risk assessment. Class 1 wired equipment that depends on an earth connection for safety will generally present a higher risk than Class 2, doubled insulated equipment.

b) Smoking

   i.   Smoking will not be permitted on any TSA site unless in the designated smoking areas

   ii.   Designated smoking areas will be identified and equipped with:

- Weather protection that retains a minimum of 50% open sides and located so as to avoid smoke entering other welfare facilities
- Adequate fireproof waste bins with arrangements to empty as necessary
- Suitable signage to identify them

All staff and visitors present onsite to be made aware of the arrangement for smoking and the safe disposal of waste smoking materials.

c) Spontaneous combustion

1. Definition:

The ignition of organic materials without apparent cause typically through heat generated internally or by rapid oxidation.

Within a laundry setting the most likely causes are:

- Heat applied during washing/drying processes
- Bulk storage of damp textiles without necessarily an obvious heat source
- Flammable residues left in the materials post-wash cycle
- Sudden exposure of materials to an air (oxygen) source

Evidence shows that spontaneous combustion can take place up to 48 hours after the wash / dry process has been completed.

2. Mitigation:

- Segregation of hot materials upon completion of the cleaning process. Ideally located within an area provided with localised fire suppression (Sprinklers)
- Remote monitoring of items electronically (temperature probes, thermal imaging technology)
- Instigate a 'fire watch' to identify any early signs that spontaneous combustion may be occurring.
- High-risk bulk items prioritisation (see also section 5.2)
- Good ventilation to prevent the build-up of heat.
- Hanging garments on hangers to allow air circulation and cooling.
- Minimise the total volume in stacked products and space these out to dissipate heat.
- End of day shut down procedures

6.2 Sources of Fuel

a) Flammable liquids and gases

i. Cleaning Chemicals

- Stored in a 'COSHH' cupboard if necessary
- Keep quantities to a minimum
- Flammables stored separately from non-flammables
- Seek to replace flammable chemicals with non-flammable alternatives where possible.

ii. Chemicals used as part of business operation
- Must be stored in a secure, and bunded areas where practical
- Do not stockpile chemicals beyond agreed delivery schedules.
- Safe system of work (SSoW) must be in place for the moving, decanting or handling of these chemicals

iii. Gas
- Mains gas must be maintained and inspected annually to ensure 'gas safety' by a registered contractor.
- Cylinders must be safely stored and secured
- Minimum quantity required stored on site
    - Flammable and non-flammable gases to be stored separately
    - Avoid the use of oxygen and acetylene where possible and store each separately where not possible to eliminate.

iv. Fuels
- Fuel storage should be avoided so far as is reasonably practicable. Where it is stored, it must be in accordance with the Control of Pollution Regulations (COPSR) and in line with local authority and fire authority guidance and requirements or primary authority requirements if these are in force.

v. Specific material fuels
- Wipers – These items must be segregated prior to washing and monitored throughout the process due to the nature of residues that may be left in them post wash / dry cycle.
- Solvents – may be present in items for drying and should not be put into dryers if there is any evidence of residues
- Peracetic Acid – used in the cleaning of medical equipment and other specialist equipment, this becomes flammable at temperatures above 40.5 degrees Celsius, therefore if there is evidence of residues after washing these items should not be put into a drying cycle as it can disintegrate causing oxidation and spontaneous combustion.
- Emollient creams and flammable lotions from healthcare or spa locations – Based on client risk profile it may be necessary to add emulsifiers ~~in order~~ to disperse these contaminants prior to washing.

b. Combustible waste

a) Textile Waste
   i.   Will be present to a greater or lesser extent at all sites and must be dealt with as follows:
   ii.   Regular cleaning schedules for all surfaces to include:
- Equipment – to include internally and on top of
- Floors – including under equipment

b) Lint and Dust
Must be kept to a minimum in all areas as follows:

- Regular cleaning of all internal areas to include all surfaces, particularly in hard to access areas such as high level structures, trunking systems, pipes, ducting and monorail systems.
- Extraction systems present where required to remove lint from the air prior to settling. (These systems will require cleaning and maintenance in line with manufactures instruction)
- If air movement fans are in operation consider the respirable dust risk.

c) Packaging
Will be managed as follows:
- Effective storage well away from any source of ignition
- Regular waste removal from site
- Monitoring of packaging levels to ensure quantity is limited to that required for normal operation of the business.

d) Textiles waste handling
   a)   This will include discarded uniforms, linens, towels and other fabric-based products no longer suitable for use. Management of these will include:
      i.   Regular collections around sites to gather all these materials together
      ii.   Safe and effective storage in a single area, ensuring that materials do not exceed the capacity of storage containers.
      iii.   Regular removal and disposal from site by an approved contractor.
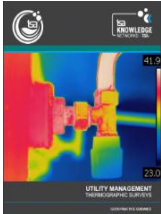
6.3 Sources of Oxygen

a) Oxidising Chemicals used as part of some cleaning processes, must be managed as follows:

    i. Stored in suitable sealed containers in a designated storage area.

    ii. Minimum quantity required for the normal operation of the business only should be present.

    iii. All efforts should be made to reduce the quantity of these chemicals used by the processes and alternative chemicals used wherever possible.

    iv. Oxidising chemicals used during the cleaning process will only be stored onsite in quantities sufficient for 6 weeks production at most.

    v. Roller shutters and large doors should remain closed where it is practical to do so

    vi. Storage of oxidising chemical containers (Inc IBC's) to be in suitable locations externally.

7.0   APPENDICES

Appendix 1 (Existing industry guidance)

- Fire Safety Good Practice Guidance Documents

Fire Safety Management		
Spontaneous Combustion	**Laundry Equipment**	**Arson Controls**

Utility Management		
Gas System Controls	**Gas Canisters & Cylinders**	**LEV & Ducting**
Thermographic Surveys	**Electrical Distribution**	

Housekeeping Standards

Housekeeping Routines

Lint Management

Chemical Controls

Flammable Substances

Oxidising Agents

Management Controls

Engineering Management

Fire Risk Assessment

Welding & Hot Work

Related Codes of Practice

Tunnel Finisher Code of Practice
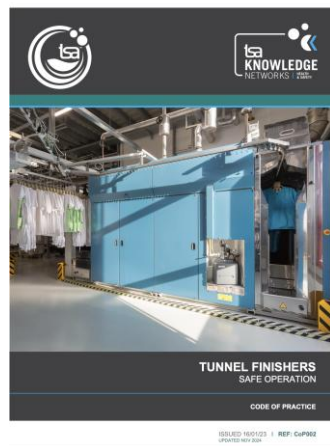
Tunnel Washer Code of Practice
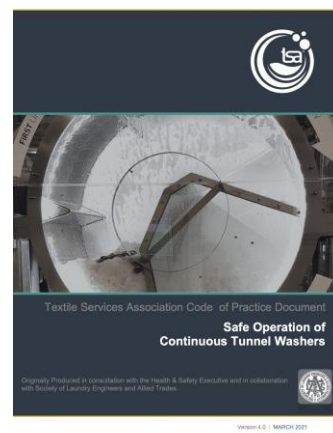
Appendix 1.2 Templates (Examples)

A. Contractor Management

B. Permit to Work

C. Welding Activities & Hot Works Permit

D. Fire Prevention and Emergency Plan Template

Click on the images below to download the template.

Appendix 2 – Legal Register

Reference	Legislation	General Control
SI 2010/2214	Building Regulations 2010	• Control of building works • General standards for construction
SI 2021/1391	Building regulations etc, England Amendment, regulations 2021	• As above (amended)
CH 30	Building safety Act 2022	• Competent Person • Amendments to RR(FS)O 2005
SI 2009/716	Chemicals, hazard information and packaging for supply Regulations 2009	• COSHH Training and awareness
SI 1997/1713	Confined spaces Regulations 1997	• Confined Space Register • Confined Space RA • Confined Space Rescue Plan
SI 2015/51	Construction, design and management Regulations 2015	• Access to competent advice • Project management
SI 2002/2677	Control of substances hazardous to health Regulations 2002	• Approved chemical list • MSDS inventory • COSHH Assessment • Storage & Segregation plan • Emergency response plan
SI 2002/2776	Dangerous substances and explosive atmospheres Regulations 2002	• DSEAR Assessment • ATEX rated equipment • Zone Plan • Explosion Protection
SI 1989/635	Electricity at work Regulations 1989	• EICR periodic inspection • Skilled and instructed engineers • PAT Testing • PPM maintenance schedule
CH 24	Fire safety Act 2021	• Fire Risk Assessment • Fire Strategy • Fire awareness training • Fire wardens

		• Passive and active protection
SI 2022/547	Fire safety, England Regulations, includes correction Jun 22 2022	• Fire safety in tall buildings
SI 1998/2451	Gas safety, installation and use Regulations 1998	• Asset register • Annual Gas Safe inspection • PPM schedules • Isolation procedure • Automatic Gas Safety system
CH 37	Health and safety at work etc Act 1974	• Health and Safety Policy • Access to competent advice • Risk assessment inventory • Training matrix • Safe Systems of Work
SI 1981/917	Health and safety, first-aid Regulations 1981	• First Aid Risk Assessment
SI 1996/341	Health and safety, safety signs and signals Regulations 1996	• Fire Risk Assessment
SI 1998/2307	Lifting operations and lifting equipment Regulations 1998	• Asset register • Bi-annual LOLER inspections (person lifts) • Annual LOLER inspections (non-person) • Bi-annual lifting equipment checks
SI 1999/3242	Management of health and safety at work Regulations 1999	• Access to competent advice • Risk Assessment • Risk Profile
SI 1999/2001	Pressure equipment Regulations 1999	• Asset register • Written schemes of inspection • PPM schedule
SI 1998/2306	Provision and use of work equipment Regulations (PUWER) 1998	• Asset register • Written schemes of inspection • PPM schedule
SI 2005/1541	Regulatory reform, fire safety Order (RR(FS)O 2005	• Fire Risk Assessment • Fire Strategy • Fire awareness training • Fire wardens • Passive and active protection

	Fire (Scotland) Act 2005	• Fire Risk Assessment • Fire Strategy • Fire awareness training • Fire wardens • Passive and active protection
	The Fire safety (Scotland) Regulations 2006	• Fire risk assessment • Firefighting equipment • Fire Safety
	Fire and Rescue Services (Northern Ireland) Order 2006	• Fire Risk Assessment • Fire Strategy • Fire awareness training • Fire wardens • Passive and active protection
	Fire Safety Regulations (Northern Ireland) 2010	• Fire risk assessment • Firefighting equipment • Fire Safety
SI 2013/1471	Reporting of injuries, diseases and dangerous occurrences Regulations 2013	• Competent Person • Accident reporting

Appendix 3 – Fire Alarm System Categories

BS 5839 splits fire alarm systems into 3 system design categories

- Category M Systems – Manual Systems
- Category L Systems – Automatic life protection systems
- Category P Systems – Property protection enhanced systems

Alarm System Category	Description
Manual	A BS5839 Category M Fire Alarm System is a manual operation only system which has call points on all exits as well as corridors where persons are not expected to walk any more than 45m to operate one.
L1	provides for Automatic Fire Detection (AFD) to be installed into all areas of a building.
L2	Automatic Fire Detection (AFD) as defined in L3 as well as high risk or hazardous areas. Examples of this could be Kitchens, boiler rooms, sleeping risk, storerooms if not fire resistant or if smoke could affect escape routes.
L3	Automatic Fire Detection (AFD) with smoke detection should be installed on escape routes with detection in rooms opening onto escape routes.
L4	Automatic Fire Detection (AFD) within escape routes only.
L5	installed in buildings with a specific risk that has been identified. An example of this would be if there was an area of high risk that requires detection the category would be L5/M.
P	The objective of a category P is to provide the earliest warning of a fire to minimise the time taken from ignition of a fire to detection and the subsequent attendance by the fire services, minimising loss to the property.

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