Risk Assessment Guidance

Title Atmospheric Dyeing Process

This risk assessment guidance has been produced to cover dyeing of fabrics associated with the company. The processes covered by this risk assessment include:

- Heating of the dye vats by either electrical or gas rinks;
- Exposed hot parts
- Open 'hot' vessels

This risk assessment excludes the use of 'high temperature' dyeing machines that operate above 100C or dyeing machines that fall within the scope of the 'Pressure Systems Safety Regulations'.

Job Sequence	Hazard Identification	Controls
Conduct pre-operational checks	Damaged parts.	All equipment must be checked before use, particular attention must be made to gas rings and their supplies. Connections must be secure and there should be no damage to hoses or connectors. A competent person must make all connections. The use of electric hot plates and gas rings must only be carried out in areas where there is sufficient space from combustible materials. If there is the smell of gas – supplies must be isolated immediately and the equipment checked before being reused. A competent person must test all hot plates and gas rings every six months. The correct PPE as identified by this risk assessment and the COSHH assessment must be worn at all times. The area immediately surrounding the burner and hot water must be kept clear of trip hazards including gas supply and/or trailing leads.
Occupational Health	Skin contact and inhalation of fumes. Burns	Low-protein powder-free gloves should be supplied for handling chemicals. When submerging or moving fabric in the dye vat, use the appropriate heavy-duty gauntlets. The COSHH assessment for the dyes being used should be reviewed for additional controls. Workers instructed to wash their hands thoroughly and use skin creams provided after handling substances. Rubber aprons should be worn to protect from splashing. If there are unpleasant odours the area should be ventilated. There is the risk of scalding associated with exposed parts of the dye vats and the hot water/dye; also there is a risk of scalding when mixing or removing fabrics. Ensure all staff are aware of the risks, avoid contact with the vats and liquids when adding, mixing or removing fabrics.
Gas Safety	Use of gas cylinders.	It is the responsibility of the Head of Department to ensure all gas cylinders used for these works are managed in accordance with the production 'Gas Cylinder' risk assessment. Gas cylinders must not be left in workshops overnight.

	Gas connections. Gas appliances.	All pipe work used for gas and connections must be suitable for the task and regularly inspected. If there is the smell of gas – supplies must be isolated immediately and the equipment checked before being reused. All gas appliances should be inspected at regular intervals and tested every six months.
Drying fabrics	Wet fabrics. Fire loading.	When drying fabrics by hanging, always ensure they are kept away from electrical supplies or exposed flames. If hanging dry fabrics ensure that they are not hung in fire routes or obstruct walkways.
Electrical Safety	Portable Appliance Testing. Overloading electrical circuits. Trailing leads. Fixed electrical supplies.	All electrical appliances must be tested at a minimum every twelve months; they should be regularly inspected for any damage or signs of overloading. Only competent persons must carry out repairs including replacement of fuses. 'Daisy chaining' of electrical supplies must be avoided; any electrical heaters including hot plates must always be fed directly for the fixed electrical installation within the workshop. All electrical leads should be run at high level within the workshops to avoid trailing leads in walkways or work areas that can lead to damage of the electrical appliances and trip hazards. If this is not possible then all leads must be matted or taped down. The fixed electrical installation is managed by the companys. All equipment is 240V and should be PAT tested and labeled accordingly with a register held by the supervisor.
Chemical Safety	COSHH. Storage of substances. Use of substances.	There are material safety data sheets for all chemicals including dyes within the workshop and COSHH risk assessments for more hazardous materials. All substances should be stored within suitable containers in a suitable location; all flammable substances must be stored in a suitable cabinet. When using substances, you must ensure that you have checked the COSHH risk assessment and where applicable have and use the correct PPE.
Fire	Flammable materials.	Areas where the heaters are used must be kept clear of flammable materials. CO_2 fire extinguisher located in close proximity – test date less than 12 months old. All works must be carried out in accordance with the companys Hot Works Permit including a 2 hour fire check when works are completed. Gas heaters must never be left unattended. Fire risk assessment undertaken as required by law – see Regulatory Reform (Fire Safety) Order 2005.

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Personal Safety	Unsuitable PPE.	Staff using the dying vats must be aware of this risk assessment and use the correct PPE provided by their department, this must include as a minimum: ● Protective apron ● Eye protection ● Rubber gauntlets (suitable for temperatures)
Accidents	First aid. Reporting.	Information for the appointed medical personnel information is displayed within the workshop. All accidents must be reported to the company's safety department.
Training	Competent Person	The HoD or Supervisor must ensure that the Company's Safety Department is notified of any significant changes to the dye process or substances being used.

All persons working with this equipment or within close vicinity must sign and show that they have read and understood the risk assessment guidance and that they will follow the above control measures set out above during their work processes.

Additional Guidance	COSHH Assessment	Method Statement	Other (Specify)
	As required	**N/A**	**Only trained persons are allowed to operate this equipment.**
Name			
Signed			Date