Unit IG2: Risk assessment

Declaration: By submitting this assessment (Parts 1 – 4) for marking I declare that it is entirely my own work. I understand that falsely claiming that the work is my own is malpractice and can lead to NEBOSH imposing severe penalties (see the NEBOSH Malpractice Policy for further information).

Important note: You must refer to the document 'Unit IG2: risk assessment – Guidance and information for learners and Learning Partners' while completing all parts of this assessment. Your Learning Partner should provide you with a copy, but it can also be downloaded from the relevant resources section for this qualification on the NEBOSH website.

Part 1: Background

You should aim to complete this section in 150 - 200 words.

Topic	Comments
Name of organisation*	Superior Paints Manufacturing Ltd (SPM Ltd)
Site location*	Bright Ville Industrial Area, Jabalpur, INDIA
Number of workers	106
General description of the organisation	SPM Ltd is a medium-sized paint manufacturing company established in 2003 operating a comprehensive facility that includes a production plant, a storage warehouse for raw materials and finished goods, an R&D lab, and an administrative office. Notably, this plant is ISO 9001 certified, reflecting the company's commitment to quality management standards. Headquartered in Jabalpur, India, SPM Ltd operates solely from this location, with no additional branches. The business specializes in producing high-quality solvent- and water-based paints for industrial, commercial, and residential use. Typical activities include blending chemicals, mixing pigments, manufacturing various types of paints, using high-speed dispersers, bead mills or sand mills, and mixing tanks with agitators for efficient production, conducting quality assurance testing at different stages, transporting raw materials to production areas, blending solvents and resins, pigment dispersion, quality control sampling, packaging through a automatic servo base liquid filling machine, handling flammable liquids in storage areas. The company operates from 8:00 AM to 6:00 PM on weekdays and remains closed on weekends. Workers adhere to a 7-hour workday, with staggered start and finish times to optimize productivity.

Description of the area to be included in the risk assessment	The risk assessment will cover the production area, including the mixing and blending stations, the flammable liquid storage area, and the warehouse. The office area and R&D lab have separate risk assessments in place.
Any other relevant information	The Operations Manager (who reports directly to the Managing Director) is responsible for overseeing all health and safety matters.

* If you're worried about confidentiality, you can invent a false name and location for your organisation but, all other information provided must be factual.

You should aim to complete this section in 100 - 200 words.
Note: this section can be completed after you have competed your risk assessment.

Outline how the risk assessment was carried out this should include: • sources of information consulted; • who you spoke to; and • how you identified: - the hazards; - what is already being done; and - any additional controls/actions that may be required.	For collecting data required for the risk assessment the ILO standards were referred to know about the requirements and instructions related health and safety in construction site. ILO convention and recommendations were also referred that are mentioned below 1. ILO Convention C155 (https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C155) 2. ILO Recommendation R164 (https://normlex.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R164) After consulting outside sources, I visited the company and spoke with Operations Manager, Workers' Supervisors and Safety Manager. The Safety Manager assisted me in analysing company documents. After reviewing company policies, I toured the production facility and observed processes like mixing, blending, storage are, and packaging. I interviewed workers to understand their safety practices and reviewed documents like basic SOP's, risk assessments, incident reports, and sick leave records. This helped me to identify hazards, assess control measures, and highlight areas needing improvement. I also checked the accident book to see what types of incidents had occurred over the last 12 months and whether any of these incidents were recurring.

Part 2: Risk Assessment

Organisation name: Superior Paints Manufacturing Ltd (SPM Ltd)

Date of assessment: 11th January 2025
Scope of risk assessment: Covers the production area and the warehouse.

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
1. Noise Hazard Noise hazard due to prolonged exposure to high noise levels than 90DB generated by sand mills and other production equipment.	Workers of production area. The use of sand mills and dispersers machines can cause hearing loss, tinnitus, and other auditory ailments to those who are exposed to high noise levels greater than 85DB for a prolonged period.	Basic personal protective equipment (PPE) such as earplugs or earmuffs are available, but not enforced. Training workers on the importance of using personal protective equipment (PPE) and safe work practices. Implementing a staggered shift system to reduce individual exposure times	Limit access to high-noise zones to only essential personnel to reduce exposure. Invest in sand mills and mixers with built-in noise-reduction features to replace older, noisier equipment. Install noise-dampening insulation around sand mills and high-speed dispersers to reduce noise at the source. Rotate workers in and out of the cutting area to ensure no individual exceeds the OSHA Permissible Exposure Limit of 85 dB over 8 hours Educate workers about the risks of noise exposure, the importance of hearing protection, and best practices to minimize exposure. Conduct regular health surveillance programs for workers to detect and	1 Week 6 Months 3 Months 2 Weeks 1 Months 3 Weeks	Operations Manager Procurement Manager Maintenance Supervisor Workers Supervisors Safety Manager Safety Manager

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
			treat noise-related illnesses early.		
2.Substance abuse at work Workers using tobacco, alcohol and other drugs while working.	Consuming workers, non-consuming workers, Supervisors, managers The consumption of alcohol and drugs negatively impact workers, Impaired judgment or coordination, leading to accidents in high-risk areas such as mixing stations, blending stations, and the flammable liquid storage area. Non-consuming workers feel Stress or discomfort working alongside individuals under the influence. challenges for supervisors and managers for maintaining discipline and productivity.	A zero-tolerance policy for substance abuse clearly outlined in the company's employee handbook. Regular toolbox talks include discussions on the dangers of substance abuse in the workplace. Periodic inspections by supervisors to identify signs of substance use during work hours. A designated smoking area far from hazardous zones to minimize fire risks.	Implement strict pre-employment drug and alcohol testing. Partner with local health organizations to offer rehabilitation programs for workers facing substance abuse issues. Install surveillance cameras at critical areas (mixing stations, blending areas, and storage zones) to detect any unusual behaviour. Encourage the workers to report any use of drugs or alcohol by other co-workers in the site.	2 Months 4 Months 1 Month 2 Weeks	HR Manager Safety Manager Facilities Manager Site Manager

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
3. Manual Handling Workers in the warehouse and production areas frequently handle heavy, overweight, or oversized materials, including loads exceeding 25kg.	Warehouse workers and production staff. Workers who manually lift heavy loads on-site are at risk of back injuries, bone injuries, bone fractures, and ligament strains, spinal injuries etc.., due to exceeding their physical limits.	Workers health conditions where checked regularly and also attendance sheet were observed daily to know more about the absentees' workers and their health issues. Regular training sessions on proper lifting techniques were conducted to prevent injuries. Job rotations were provided to the workers for the safe system of working. PPE's like safety shoes, gloves, helmets were provided for workers safety.	Provision of conveyor belts and mechanical lifting equipment in the site to move materials form one place to another. Implement a buddy system where workers can assist each other with heavy lifting tasks. Ensure that all lifting equipment's is regularly maintained and inspected for safety and efficiency. Implement a policy limiting the maximum weight of 25 KG as a standard weight that a single worker can lift without assistance. Inspections needed to be done regularly to check whether the workers are following proper methods. Encourage a culture of safety where workers feel comfortable stopping work if they believe it is unsafe to continue.	1 Month 2 Weeks 2 Weeks 2 Weeks 3 Weeks 2 Weeks	Project Manager Site Manager Site Manager Project Manager Site Manager Site Manager

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
4. Load Handling Equipment Two forklifts with faulty brakes are being used to transfer goods between the production plant and the warehouse (storage area).	Forklift Operators, Nearby Workers. Two forklifts with faulty brakes are being used to transfer goods between the production plant and the warehouse, posing significant risks. These include the potential for severe injuries, such as crush injuries or broken bones, from being struck by an out-of-control forklift. Through these accidents can also result in injuries such as nerve damage, bone fracture and even instant death	Routine Maintenance Program forklifts are inspected monthly, and basic servicing is carried out. Driver Training forklift operators are trained to handle equipment safely and perform pre-use checks. Speed limit for vehicles are maintained.	Restrict use of faulty equipment mark faulty forklifts as "Out of Service" to prevent their usage until fully repaired. Segregated pathways for pedestrians create clearly marked pedestrian zones separate from forklift operating areas to minimize the risk of collisions. Make sure to repair the forklift as early as possible. Install warning systems on forklifts equip forklifts with audible alarms, flashing lights, and backup cameras to improve visibility and warn workers of their presence. Introduce pre-shift safety checks implement a checklist for forklift operators to inspect brakes, steering, and other safety features before each shift. Emergency brake testing procedure develop and implement a standard procedure to periodically test forklift brakes under supervision to ensure functionality. Ensure operators and pedestrians are	1 Day 1 Week 3 Days 2 Weeks 5 Days 2 Weeks 3 Days	Maintenance Supervisor Safety Manager Maintenance Manager Procurement Manager Operations Manager Safety Manager

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
			equipped with appropriate safety gear (e.g., helmets, high-visibility vests).		Warehouse Supervisor
5. Hazardous Substance (Chemical) **Dust** generated by the particles of pre-mix pigments, fillers, and part of the binder in a high-speed disperser.	Workers in production area, cleaning staff. Workers directly involved in mixing and blending operations, those in adjacent areas exposed to airborne dust, and cleaning staff responsible for handling the workspace after operations face significant health risks. Prolonged inhalation of airborne dust particles can lead to respiratory issues such as occupational asthma, chronic bronchitis, or silicosis. Skin contact with the dust may cause irritation, potentially resulting in dermatitis, while dust particles entering the eyes can cause irritation or even physical damage.	The workers were given training with how to handle chemicals during the work.	Implement automated mixing systems reduce dust generation. Upgrade local exhaust ventilation (LEV) systems, ensuring regular maintenance and the use of high-efficiency filters. Dust extraction systems must be installed at source of dust generation. Utilize water sprays or misting systems to suppress airborne dust at the source. Replace dry sweeping with industrial vacuum cleaners equipped with HEPA filters. Encourage workers to wash hands and face before eating or drinking to prevent ingestion of dust particles. Ensure workers take regular breaks to reduce continuous exposure to dust.	4 Months 2 Months 3 Months 2 Months 1 Months 1 Week 1 Week	Maintenance Manager Maintenance Supervisor Maintenance Manager Operations Manager Facilities Manager Workers Supervisor Workers Supervisor

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
			Respiratory masks and dust filters must be provided to workers to prevent them from inhaling dust particles. PPEs like safety transparent eye glasses, masks, helmets, gloves must be provided to workers.	2 Weeks 2 Weeks	Safety Manager Safety Manager
6.Hazardous Substance (chemical) Exposure to volatile organic compounds (VOC), Fumes, vapours during mixing, blending and storage of paints.	Production workers, Visitors and Housekeeping staff. Workers operating blending and mixing machines are directly exposed to volatile organic compounds (VOCs) and chemicals. During cleaning activities and site visits, visitors are also exposed to VOCs and paint vapours. These substances can cause headaches, dizziness, respiratory irritation, and, it is a chronic hazard which may lead to serious health issues like organ damage, Asthma.	Supply of personal protective equipment (PPE) such as gloves, goggles, and respirators. Use of local exhaust ventilation (LEV) at mixing and blending stations to reduce airborne contaminants. Designated storage areas with proper labelling and segregation for flammable liquids and hazardous substances. Routine air quality monitoring to ensure VOC levels remain within permissible limits. Availability of Material Safety Data Sheets (MSDS) for all	Updating the policy about the use of low-VOC or zero-VOC paints. Installing an automated VOC detection system to provide real-time monitoring. Checking the storage area on a regular basis to ensure proper material handling and storage, and ensuring no leaks in buckets and containers. Periodic medical check-ups for employees to monitor health related to chemical exposure. Developing and implementing a Permit-to-Work system for chemical handling and maintenance tasks. Make sure that Spill containment kits available in all high-risk areas.	1 Month 2 Months 1 Week 1 Month 1 Month 2 Weeks	Safety manager Maintenance Manager Warehouse Supervisor HR Manager Operations Manager Safety Manager

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
		chemicals on-site. Periodic safety training on chemical handling. Emergency showers and eyewash stations installed near chemical handling areas. Ensuring rotatory shift in storage area.			
7. Slip and Trip Hazard Spillage of chemicals and slippery substances during mixing and manufacturing processes and dried chemicals, equipment, or tools left on the floor.	Production workers and visitors. In the mixing, dispersion, and blending areas, workers and visitors face risks of injuries such as cuts, bruises, muscle strains, or broken bones from slipping on spilled liquid binders, solvents, or water. Tripping hazards also arise from dried chemical residues, misplaced tools, or equipment. Additionally, overloading pigments and fillers during the manufacturing process	Routine cleaning of work areas and spillages by designated cleaning staff. Provision of non-slip safety footwear for all workers. Installation of safety signage to indicate wet/slippery areas. Use of spill kits in key areas to quickly manage chemical spills. Induction trainings are given to visitors on activities and hazards of slip and trips at site.	Update the policy to prevent overloading of pigments and fillers during the manufacturing process. Construct bund walls around machinery to contain potential spills and leaks. Ensure proper drainage systems are in place to allow water flow and avoid surface accumulation. Implement a daily inspection checklist to ensure floors and workspaces are free from spills or dried chemicals. Establish a system for workers to immediately report spills or hazards to supervisors for prompt action.	2 Weeks 1 Month 1 Month 2 Weeks 2 Weeks	Operations Manager Maintenance Manager Facilities Manager Safety Manager Workers Supervisor

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
	can pose safety risks to both production workers and visitors.		Provide training to workers on correct housekeeping methods to maintain a clean and safe work environment.	3 Weeks	Safety Manager
8. Work Equipment and Machinery Lack of proper safeguarding in the automatic servo-based liquid filling machine.	Workers operating the filling machine, Maintenance staff, Nearby workers Workers may encounter moving parts like conveyor belts, filling nozzles, or capping mechanisms, risking cuts, pinching, or crushing injuries and some time it leads to the fatal injuries also. Maintenance or repair activities without proper de-energization or guarding increase these risks. Additionally, unguarded machinery may harm workers passing through the area, leading to accidental interactions and similar injuries.	Basic guarding installed Some protective barriers are in place to reduce direct contact with moving parts. Signage Warning signs displayed near the machine to alert workers about potential hazards. Lockout/Tagout (LOTO) procedures Implemented for maintenance activities to de-energize the machine. Training Workers receive basic training on operating the machine and recognizing hazards. Given appropriate PPE such as cut-resistant gloves, safety goggles, and protective footwear when working near the machine.	Assess if manual alternatives can be considered for non-essential operations to reduce reliance on the servo-based machine. Evaluate the feasibility of replacing the current servo-based filling machine with a more modern version that has built-in safety interlocks. Install interlocked guards that stop the machine when opened or accessed. Introduce light curtains or pressure-sensitive mats to automatically halt the machine if someone enters a hazardous zone. Develop and enforce Standard Operating Procedures (SOPs) for operating and maintaining the machine. Perform periodic third-party safety	1 Month 3 Months 2 Months 3 Months 1 Month 6 Months	Operations Manager Maintenance Manager Maintenance Supervisor Safety Manager Operations Manager Safety Manager

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
		Emergency stop buttons at easily accessible locations around the machine.	audits to align with best practices and regulatory standards		
9. Fire Hazard Storing flammable fluids such as paint thinners (e.g., turpentine) near hazardous machinery in the production area, specifically near the mixing and blending machines.	Workers in production area, adjacent area (warehouse and admin offices), visitors or contractors in the facility and environment. Workers in production areas risk severe burns or fatalities from fires caused by flammable fluids near mixing machines. Fires can also cause suffocation, coughing, headaches, and carbon monoxide poisoning from smoke. Those in adjacent areas, such as warehouses or offices, face risks from fire spread and toxic fumes. Visitors and contractors may also be endangered if fires spread. Additionally, fires and chemical spills pose	Use of fire-resistant storage cabinets for flammable liquids. Regular fire drills and evacuation plans implemented. Provision of fire extinguishers (foam and CO2) near the production area and flammable liquid storage. Procedures (SOPs) for handling flammable liquids. Signage and labels indicating "Flammable" near storage areas. Training workers on safe handling of flammable fluids and emergency response.	Inflammable fuels and other substances need to be stored in separate storage area. Conduct regular flammable liquid inventory checks to avoid excess stock on-site. Relocate flammable liquid storage at least 10 meters away from operational machinery. Introduce ATEX-rated (explosion-proof) mixing and blending machines to prevent sparks during operation. Install automatic fire suppression systems (e.g., sprinklers) in high-risk areas like the mixing and storage sections. Use spill containment pallets under flammable liquid storage containers. Enforce a hot work permit system for	3 Weeks 1 Week 1 Month 2 Months 6 Weeks 3 Weeks 2 Weeks	Safety Manager Warehouse Supervisor Operations Manager Maintenance Manager Facilities Manager Warehouse Supervisor Safety

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
	environmental hazards, potentially contaminating nearby land and water through firewater runoff.		any activities involving sparks or heat in the production area. Provide flame-resistant uniforms for all workers in the production area.	 1 Month	Manager HR Manager
10. Electricity Machines with damaged cables and torn insulation	Workers, engineers, supervisors, using these machines for work. Contact with damaged cable can lead to the person getting an electric shock causing injuries like temporary unconsciousness, muscle pain. If shock is even lethal, It can lead to severe burns, cardiac arrest and even death.	Ground fault protection is provided like GFCI or RCD. Equipment has an emergency shutdown button. Inspections are conducted regularly before using machines in work by an electrician. PPE like insulated gloves are used when using high voltage machines.	Damaged cables are needed to be replaced with new ones with better insulation. Install protective covers to cables to reduce damage and use cable management to organise them. Training should be given to workers on handling of machines and rearranging them after work. Implement a response team capable of handling any emergency situations like person getting electrocuted. PPE like sleeves covering arm, safety shoes that have nonconductive soles so that person is fully isolated should be provided.	1 Week 1 Month 2 Weeks 1 Month 3 Weeks	Maintenance Supervisor Maintenance Supervisor Safety Manager Safety Manager Safety Manager

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
11. **Confined spaces** Entering confined Spaces without proper ventilation and quality monitoring	Workers entering confined spaces. Entering confined spaces such as ducts at the site can expose workers to dangerous conditions, including oxygen deficiency or toxic gas accumulation. These hazards can cause serious health issues such as asphyxiation, respiratory distress, or even fatal outcomes.	Safety barricades and warning signs are placed around confined spaces for workers safety. Ventilation systems are installed to ensure a constant supply of fresh air in confined spaces. An emergency rescue plan is in place, and rescue equipment's readily accessible. Communication devices such as radios, are provided to the workers those who are inside the confined spaces.	Regular monitoring of air quality levels should be done within the confined spaces. Ensure clear and easy access to exits and emergency escape routes within the confined spaces. Permit-to-work system needed to be implemented. Only those workers who are competent and those having efficient knowledge about confined spaces are allowed to enter there. Provide access to first aid kits and trained first aid responders near confined spaces. Ensure all the confined spaces are thoroughly inspected before any entries.	2 Weeks 1 Week 1 Month 2 Weeks 2 Weeks 1 Week	Safety Manager Facilities Manager Operations Manager Site supervisor Safety Manager Maintenance Supervisor
12. Electrical Hazard Residual current in the Automatic	Workers operating the machine, maintenance personnel. Workers who are working or operating the machine	Routine visual inspections of electrical equipment and machinery. Basic personal protective equipment (PPE) provided,	Purchase & Install Residual Current Devices (RCDs) fit RCDs on the electrical circuit connected to the machine to detect and disconnect any leakage current immediately.	2 Weeks	Maintenance Manager

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
Servo Base Liquid Filling Machine during the paint packaging process due to improper earthing	and the workers who maintain the machine on daily basis has a risk of electric shock, electrocution, electric burns, cardiac arrest, nerve damage, or even death in severe circumstances.	such as rubber gloves and insulated footwear, for workers in high-risk zones.	Ensure proper earthing conduct an earthing test and install a robust earthing system to mitigate residual current buildup. Install an emergency shut-off switch install an easily accessible emergency stop button on the machine to immediately cut off power in case of an emergency. Training programs for workers conduct electrical safety awareness training for workers, emphasizing the importance of reporting any signs of malfunction or residual current.	1 Month 2 Weeks 1 Month	Maintenance Manager Maintenance Manager Safety Manager
13. Mental ill-health Stress arising from demanding workloads, exposure to tight deadlines in production, inadequate rest breaks, and lack of	Workers and Supervisors Pressure to meet production targets can lead to emotional distress and poor decision-making for supervisors, while workers may experience prolonged stress, resulting in anxiety, depression, burnout, physical symptoms like headaches, fatigue, and	Workload Management Staggered start and finish times to avoid overcrowding and distribute tasks effectively. Break Times Provision of scheduled breaks to allow workers to relax and reduce fatigue.	Automate repetitive and physically demanding tasks to reduce worker stress. Hire more workers to speed up the work to handle the workload. Appoint a company counsellor for helping workers with issues related to mental ill-health. Monitor workloads regularly to ensure that employees are not being	4 Months 7 Weeks 2 Months 2 Weeks	Maintenance Manager HR Manager HR Manager Operations Manager

Hazard category and hazard	Who might be harmed and how?	What are you already doing?	What further controls/actions are required?	Timescales for further actions to be completed (within …)	Responsible person's job title
mental health support.	even insomnia.		overburdened. Introduce a mental health awareness program, including stress management workshops and resilience training.	6 Weeks	HR Manager

Part 3: Prioritise 3 actions with justification for the selection

Suggested word counts
Moral, general legal and financial arguments for all actions: 300 to 350 words
For EACH action:
Specific legal arguments: 100 to 150 words
Likelihood AND severity: 75 to 150 words
How effective the action is likely to be in controlling the risk: 100 to 150 words

Moral, general legal and financial arguments for ALL actions

Moral, general legal and financial arguments	**Moral Arguments** At Superior Paints Manufacturing Ltd (SPM Ltd) company, the company have to face moral loss if an accident occur due to poor safety standards, In addition to trust and morale issues, accidents can lead to guilt and regret among managers, diminishing their leadership confidence. Witnesses or those affected may experience trauma, creating a tense work environment and increasing fear. Families of injured workers face emotional and financial distress, straining trust in the employer. Public scrutiny and media attention can damage the company's reputation, harming relationships with customers and partners. Furthermore, resources may be diverted from growth initiatives to address the aftermath of the accident, staff turnover, loss of contractor's deal, delaying progress and hindering competitiveness. These moral losses highlight the need for strong safety measures to protect both employees and the company's long-term success. **Legal Arguments** Employers are legally obligated to provide a safe workplace in line with International Labour Organization (ILO) conventions and recommendations. Specifically, ILO Recommendation 164 (R164) Article 10 and ILO Convention 155 (C155) Article 16 require employers to ensure, as far as practicable, that the workplace, machinery, equipment, and processes under their control are safe and do not pose risks to employees' health. Additionally, ILO Convention 167 Article 13 mandates reasonable measures to eliminate workplace hazards that may jeopardize employees' health and safety.

	Failure to meet these legal obligations can result in enforcement actions such as verbal warnings, improvement notices, prohibition notices, or legal prosecution. Penalties may include fines, imprisonment, operational restrictions, or even a ban on business activities. Noncompliance also risks tarnishing the organization's reputation and jeopardizing future business prospects. Compliance with these health and safety standards is not only a legal necessity but also essential for safeguarding the organization's reputation and operational success. **Financial Arguments** Workplace accidents can result in significant financial losses for a company, categorized as direct and indirect costs. **Direct Costs** 1). The company bears the expense of providing first aid and medical treatment to injured workers. 2). Injured employees must be compensated with sick pay during their recovery period. 3). Property damage, such as broken machinery or tools, requires costly repairs or replacements. 4). Reduced workforce due to injuries may cause production delays and associated financial losses. **Indirect Costs** 1). Workplace injuries can lower the morale of other workers, reducing their efficiency and work quality, leading to further delays and losses. 2). Production delays may result in late deliveries, harming customer relationships and damaging the company's goodwill. 3). Recruitment and training of replacement workers add to the overall operational costs. 4). A damaged company reputation due to workplace accidents can lead to cancelled contracts, lost partnerships, and fewer new business opportunities. 5). Industrial relations may be strained due to incidents, potentially causing strikes or other disruptions, further impacting revenue. While some costs—like medical expenses, workers' compensation, and property damage—are covered by insurance, others, such as production delays, sick pay, and penalties, are not.

	Moreover, insurance claims can lead to increased premiums, and companies with poor safety records may struggle to secure coverage.

Justification for action 1

Action (Taken from column 4 of risk assessment)	Inflammable fuels and other substances need to be stored in separate storage area (Hazard category: Fire)
Specific legal arguments	According to **International Labour Organization (ILO), Convention C167, Article 29**,it is directed that employers should provide a sufficient storage for flammable fuels, liquids, gases and solids. These legal rules are made to reduce the Fire risks. If any of the rules were failed to obey, then it can be resulted in significant consequences, including fines which can lead to financial loss and can loss credibility Additionally, the **ILO's Recommendation R175, Nos.46,and 47,** states the importance of providing training and other knowledge's to employees when a fire hazard takes place. So all these will provide the employees to use the fire equipment's safely, which will lead to a safer environment and will reduce the chance of any fire hazards
Consideration of likelihood AND severity • types of injury or ill health • number of workers at risk • how often the activity is carried out • how widespread the risk is	The probability of this hazard occurring is extremely high due to the careless placement of inflammable liquids and chemicals near operational machinery such as mixing and blending equipment. This significantly increases the risk of fire, especially if turpentine barrels are left uncovered and exposed to potential sparks. The severity of this hazard is critical, as it can result in a range of injuries. At minimal risk, there might be no harm, but at minor levels, individuals could sustain burns, cuts, or experience pain, which can be addressed with basic first-aid. More serious conditions could involve respiratory issues from inhaling carbon dioxide, smoke, or sulphur dioxide, leading to breathing difficulties. In the worst-case scenario, severe burns, paralysis, coma, or even fatalities may occur. Currently, 34 workers in the production area are regularly handling inflammable substances, such as paints and thinners, as part of their daily activities. The risk is widespread and amplified by the fact that flammable materials are present across the production area and are stored in close proximity to one another. However, these risks can be mitigated through the implementation of proper work practices and safety measures.
How effective the action is likely to be in controlling the risk. This should include: • the intended impact of the action;	Storing flammable liquids in a designated, separated area is an effective control measure to reduce fire hazards. There is a chance that when sometimes workers carelessly leave the lids open after use, which will lead the Turpentine to spread into the surroundings, and eventually spread across

• justification for the timescale that you indicated in your risk assessment; and • whether you think the action will fully control the risk	the entire area. The intended impact is to minimize the spread of flammable vapours, thus significantly lowering the risk of ignition and fire. While this measure cannot completely eliminate the risk due to other contributing factors, it serves as a critical step in fire hazard prevention. The three-week timescale indicated by the Safety Manager is reasonable, as it allows for proper planning and consultation with the Project Manager to ensure the safe implementation of storage protocols. The suggested actions can significantly reduce the risk, but cannot entirely eliminate it. There are several other numerous factors that can lead to a fire hazards. Our main goal is to reduce the maximum we can, by implementing many safe practices and control measures.

Justification for action 2

Action (Taken from column 4 of risk assessment)	Damaged cables are needed to be replaced with new ones with better insulation. (Hazard category: Electricity)
Specific legal arguments	The **International Labour Organization (ILO), Convention C167, Article 26**, specifies that the installation and maintenance of electrical cable on work sites must stick to the National technical rules and standards. One of the main duties of the employer is to give financial resources for the management to provide management and maintenance of wires and cables, so that we can ensure protection against electrical hazards from live cables and cords.
Consideration of likelihood AND severity • types of injury or ill health • number of workers at risk • how often the activity is carried out • how widespread the risk is	Electrical works are consistently carried out by staggered shifts due to high volume of production activities. The likelihood of electricity hazard is very likely because of the regular use of electrical equipment's and the presence of cracked and damaged wires. The severity of accidents is also significant ranging from minor to fatal. In **minimal** conditions there will be no injuries. In **minor** condition there will be cuts and skin burns. In **major** conditions there is chance of internal bleeding's, tearing of tissues, muscles, and bone

	fractures can also occur because of falling when an electric shock hits. In fatal condition there is chance of cardiac arrest, respiratory arrests, nerve damage and also even death. There are 34 workers in the production area, those who are engaged in several electrical activities and also using electrical equipment's. All these workers are at risk due to damaged cords and wires. The activity is carried out daily, except weekends. On the working days there is frequent usage of electrical equipment's. The risk is widespread, affecting the production area where there is a regular use of the damaged wires, cables, and equipment's.
How effective the action is likely to be in controlling the risk. This should include: • the intended impact of the action; • justification for the timescale that you indicated in your risk assessment; and • whether you think the action will fully control the risk	This action significantly reduces the risk occurring at some extend. By replacing or repairing damaged cords, workers are less likely to encounter the exposed copper wires, so reducing the likelihood of electric shocks. The information has been passed to the site supervisor. He exactly requires 1 week for collecting the fund from the project manager, and to give advices to the maintenance manager for maintenance of these cords and wires. The action will fully control the risks up to 80 percent. While replacing or repairing damaged cords, minimizes the chance of workers to come in contact with the expose's wires, which will directly lead to many injuries. Continuous monitoring, regular maintenance, safety training classes will manage and reduce the risk efficiently

Justification for action 3

Action (Taken from column 4 of risk assessment)	Dust extraction systems must be installed at source of dust generation (Hazard category: Hazardous substance- Chemical)
Specific legal arguments	According to the **ILO convention C155** it is the responsibility of SPM LTD to provide safe workplace to the workers. By **Article 16** It is the employer's responsibility that workplaces, machinery, equipment and process under their control are safe and without risk to health. Employer should ensure that chemical, biological and physical substances and agents under their control are without risk to health. By **ILO convention C148 Work Environment article 10** employer should provide the protective clothing like workwear which avoid accumulation of dust and protective equipment like masks or respirators to prevent risk of accidents or adverse effects on heath due to the exposure to dust

	particles in air. Also **recommendation R164 supplements C155** by providing detailed guidance to comply the policies in C155. Workers should be provided protective measures to work in air polluted condition like dust and it is the duty of employer and right of every worker.
Consideration of likelihood AND severity • types of injury or ill health • number of workers at risk • how often the activity is carried out • how widespread the risk is	Likelihood of workers to be exposed to dust is likely because of the regular use of dispersers. Considering Severity I categorise it into 3 **Minor**: small breathing irritations manageable with first aid treatment or basic medical treatment **Major**: significant breathing problems like asthma, bronchitis which needs more medical treatment facilities. **Severe**: severe conditions like silicosis severe chronic lung diseases which can cause long term disability or can become threat to life. Inhaling dust particles from pre-mix pigments, fillers can lead respiratory problems like asthma or chronic bronchitis. Fine crystal particles contain silica which cause silicosis to the lung causing inflammation of tissues in lungs. Approximately 08 to 10 workers work for 7 hrs daily in a staggered shift so regular exposure to dust can cause health issues as they are doing the work regularly. The risk here is large one as workers are been directly affected while doing work from source itself, also dust spreads through the air to nearby surroundings creating air quality problems to other parts of work site.
How effective the action is likely to be in controlling the risk. This should include: • the intended impact of the action; • justification for the timescale that you indicated in your risk assessment; and • whether you think the action will fully control the risk	The control measures are there to largely reduce the amount dust produces at the source itself so that dust is removed before it exposed to workers or being mixed in air to surroundings. So we are reducing significant amount worker exposure to dust and improved air quality for all workers with safe healthy workplace, thereby reducing any cases of respiratory problems like asthma, silicosis. To install the extraction system, it would take at least 3 months for it be functional. Procedures include approval after discussing with top managers, fund approval and allocation, selection of suitable extraction system for the site, ordering parts of the extraction system, installation and giving training to give maintenance of machine, all operations will take at least 3 months complete.

	Extracting systems at the source of the dust particles is very effective to control dust hazards, catching dust before exposure and mixing in to the environment ensures that this risk can be fully controlled ensuring safer workplace.

Part 4: Review, communicate and check

Suggested word counts for each section:

- Planned review date or period and reasoning for this: **50 - 100 words**
- How the risk assessment findings will be communicated and who needs to know the information: **100 - 150 words**
- Follow up on the risk assessment: **100 - 150 words.**

Planned review date/period with **reasoning**	The risk assessment policy at Superior Paints Manufacturing Ltd (SPM Ltd) ensures that reviews are conducted annually, with the next scheduled review date set for 11/01/2026. However, in the event of any accidents, incidents, or near misses, an immediate risk assessment will be carried out. Additionally, reviews are conducted earlier if there are changes in the number of workers, introduction of new equipment, machinery, processes, or any updates to applicable laws or regulations. These measures help maintain a safe working environment within the production plant, storage facilities, and administrative areas while reducing risks efficiently.
How the risk assessment findings will be communicated **AND** who you need to tell	The risk assessment findings will be communicated with the help of a report and this report is then shared to the key persons that include Operational Manager, Managing director, project manager, site manager, maintenance manager, accounts and finance manager, and safety manager also. After sharing these reports, a meeting will be conducted among these individuals and many findings will be discovered on how to create and maintain a safe environment in the work site, also, if necessary, establish more safety control measures, all in a moral, legal, and financial perspective. After all, training's will be provided to the workers on how to maintain a safe work place, and competent workers will be assigned to do hard jobs.
How you will follow up on the risk assessment to check that the actions have been carried out	To follow up the risk assessment and ensuring everything is performing correctly, we will be having regular meetings with key authorities to discuss the progress and also regular site inspections, also verifying the control measures. Workers will have a easy method to report any issue to the management. There will be also regularly reviewing the incident reports. Workers feedback section will also be taken into consideration at the time of inspection. All these will be documented properly so to get a continuous going. I will be also establishing a deadline-system for those works that have to completed in specific time period because of its risk. By doing all these follow-up process, we can ensure an efficient risk management system, leading to a safer workplace.