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Hazard Assessment and Mitigation in the Workplace



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Section 3: Supplemental Information

This section contains:

- Categories of Hazards: Summary of Occupational Safety, Health and Psychological Hazards
- Special Vulnerabilities of Children
- Sector Specific Checklists
 - Human Factors Checklist
 - Small Workshop Checklist
 - Bakery Safety Checklist
 - Carpentry Safety Checklist
 - Restaurant Safety Checklist

Categories of Hazards

Summary of Occupational Safety, Health and Psychological Issues

Summary of Occupational Safety, Health and Psychosocial Hazards		
Hazard Category	Hazard Description	Possible Mitigations
Accident	<ul style="list-style-type: none"> • Motor vehicles (collisions, accidents) • Machines (cuts or lacerations, limbs caught in moving or intake parts) • Cutting tools • Power tools • Wet or uneven surfaces, clutter • Falling objects • Trapped in isolated spaces (e.g., behind doors, machines or furniture) 	<ul style="list-style-type: none"> • Children should not operate motor vehicles or heavy equipment • Machines should have guards • Machines, vehicles and tools should have regular maintenance and cleaning • Children under 15 should not use cutting tools; children over 15 should use suitable tools for the job and should be trained in safe use • Children under 15 should not work at heights; children over 15 should wear protective clothing
Chemical	<ul style="list-style-type: none"> • Exposure to crop dust, fibers in textile industry, carpentry or paper manufacturing • Exposure to mineral dust in glass factories, mines, car brake manufacturing • Exposure to toxic chemical agents through inhalation, skin absorption or ingestion • Exposure to exhaust 	<ul style="list-style-type: none"> • Isolate dusty conditions • Personal protective equipment • Facilities to wash hands • Children under 15 should not work in confined spaces • Children over 15 should not work alone in confined spaces • Hazardous chemicals should be kept away from children
Physical	<ul style="list-style-type: none"> • heat and cold (direct-indirect) • electricity (dynamic-static) • noise • vibration • lightning • poor ventilation • radiation (ionized-non ionized) • gases under pressure 	<ul style="list-style-type: none"> • Children should not work too long in the sun or cold. • Safe electrical wiring. • Improved ventilation • Isolating sources of noise. • Children under 15 should not operate vibrating machines. • Workplaces should be properly lit and ventilated. • Proper safety precautions working with gases under pressure.

<p>Ergonomic (Musculoskeletal)</p>	<ul style="list-style-type: none"> • Lifting, carrying or moving heavy objects • Repetitive movements • Awkward postures, especially over long periods • Poorly designed tools which require poor posture • Poorly sharpened tools which require more effort 	<ul style="list-style-type: none"> • Use of lifting aids or carts to manage heavy loads • Variation in tasks • Adequate breaks • Proper tool selection and maintenance
<p>Working Conditions</p>	<ul style="list-style-type: none"> • Rates of pay • Long working hours • Income security • Poor sanitation and housing • Lack of health care 	<ul style="list-style-type: none"> • Children should never work over eight hours a day. • Establishment of health services, counselling, community support. • Access to drinking water and adequate latrines • Vaccination and health education
<p>Biological</p>	<ul style="list-style-type: none"> • Contact with biological wastes or fertilisers • Contact with domestic or wild animals • Contact with harmful plants 	<ul style="list-style-type: none"> • Integrated pest management • Protective clothing • Adequate sanitation
<p>Psychological</p>	<ul style="list-style-type: none"> • Humiliation • Verbal abuse • Sexual abuse • Physical abuse • Isolation • Lack of learning / lack of career as part of future plans • Encouragement to take risks • Isolation • Stress 	<ul style="list-style-type: none"> • implementation of Code of Conduct • children and business owners aware of children's rights • acceptable discipline standards agreed among BO's and children • children able to connect / associate with each other to discuss common problems • children have access to a trusted adult

Special Vulnerabilities of Children

Working children face increased risk across all categories of hazard (see Categories of Hazard chart for more detail).

Category of Hazard	Special Risks for Working Children
Safety	<ul style="list-style-type: none"> • Children may lack the ability to judge risk • Children lack work experience. With greater experience comes an increased ability to assess and avoid risks.
Chemical	<ul style="list-style-type: none"> • Children's immune systems are more sensitive to toxins and other harmful materials. • Children are more vulnerable to airborne pollution.
Physical	<ul style="list-style-type: none"> • Children's physiology is more vulnerable to heat, cold, dehydration and other physical health hazards. • Poor lighting and ventilation can result in ongoing health risks for children and young people.
Ergonomic	<ul style="list-style-type: none"> • Many tools and machines are designed for adults, not children's small size
Working conditions	<ul style="list-style-type: none"> • Children often work without appropriate training or supervision. • Children are often assigned to inappropriate work. • Some micro-enterprises lack sanitation and water facilities, which expose young people to potential health problems.
Biological	<ul style="list-style-type: none"> • Children's habits when eating, drinking and playing can increase vulnerability (i.e., may forget to wash hands, may not be aware that toxins remain on the skin unless removed)
Psychological	<ul style="list-style-type: none"> • Desire to conform • Need to prove maturity • Vulnerability to peer pressure • Bullying or psychological abuse from workshop owners and other children (either in the workplace or in school/community) • Gender-specific hazards for girls who work in male dominated environment

General and Sector Specific Checklists

The following are checklists to support trainers as well as loan and social officers in assessing hazards in a workplace.

- Human Factors Checklist (all sectors)
- Small Workshop Checklist (multiple sectors)
- Bakery Safety Checklist
- Carpentry Safety Checklist
- Restaurant Safety Checklist

Human Factors Checklist: All Sectors¹

The following checklist questions can be used to identify symptoms that can develop into real problems requiring control. (Questions answered with YES should be followed up on and corrected.)

	YES	NO
1. Does the worker use non-stop, repetitive movements in the job process?		
2. Does the worker's task require moving too frequently, with excessive force or too long?		
3. Is the worker's body (arms, legs, back or neck) in poor alignment or awkward position?		
4. Is the workstation / workshop disorganised or the equipment poorly positioned, causing unnatural or awkward movement?		
5. Are tools and other equipment designed to prevent healthy working positions?		
6. Are processes and workstations designed to force workers to reach, stretch or bend unnaturally?		
7. Is the worker uncomfortable during tasks or procedures of the job?		
8. Can any body part be caught in moving parts, between objects or have harmful contact?		
9. Is the worker exposed to slips, falls, trips, strains from lifting, pulling, pushing, heat or cold?		
10. Is excessive noise or vibration, poor lighting or adverse weather affecting performance?		
11. Is the worker exposed to any risk of falling or having objects fall on them?		
12. Is the worker exposed to electricity, fumes, gases, chemicals, dusts, etc.?		

¹ Adapted from the Industrial Accident Prevention Association's "Health and Safety Guide for your Workplace" 2006.

Small Workshop Checklist

	YES / SAFE	NO / UNSAFE
Workshop Layout		
<ul style="list-style-type: none"> • Are floors clear of equipment, cables and furniture? 		
<ul style="list-style-type: none"> • Are there proper storage spaces for tools, especially sharp objects, when they are not in use? 		
Chemicals and Gas (if present, answer the following questions)		
<ul style="list-style-type: none"> • Are flammable chemicals or gas stored in appropriate containers? 		
<ul style="list-style-type: none"> • Are flammable chemicals or gas used in ventilated areas? 		
<ul style="list-style-type: none"> • Are materials labelled to avoid the possibility of using the wrong product? 		
Equipment		
<ul style="list-style-type: none"> • Is equipment set up for easy use (not too low, not too high)? 		
<ul style="list-style-type: none"> • Is there adequate space around equipment? 		
<ul style="list-style-type: none"> • Are there guards on moving parts and sharp blades or points? 		
<ul style="list-style-type: none"> • Are potential hazards labelled? 		
<ul style="list-style-type: none"> • Are children using machines and equipment that is an appropriate size? 		
<ul style="list-style-type: none"> • Is personal protective equipment available (gloves, safety glasses, footwear, headwear, etc.)? 		
Electricity		
<ul style="list-style-type: none"> • Is the wiring safe? 		
<ul style="list-style-type: none"> • Are outlets high enough to avoid accidental contact with wiring? 		
<ul style="list-style-type: none"> • Are electrical machines and tools near outlets so wiring does not stretch too far? 		
Hygiene and Sanitation		
<ul style="list-style-type: none"> • Is there a place for workers to wash their hands before eating? 		
<ul style="list-style-type: none"> • Are there washroom facilities? 		
<ul style="list-style-type: none"> • Is waste materials and products disposed of appropriately? 		
<ul style="list-style-type: none"> • Is there a place for workers to eat, away from machines or chemicals? 		

Bakery Safety Checklist

	YES / SAFE	NO / UNSAFE
Bakery Layout		
<ul style="list-style-type: none"> • Are floors clear of equipment, cables and furniture? 		
<ul style="list-style-type: none"> • Are there proper storage spaces for tools, especially sharp objects, when they are not in use? 		
Gas and Ovens		
<ul style="list-style-type: none"> • Are all gas pipes safely installed? 		
<ul style="list-style-type: none"> • Is there appropriate ventilation to disperse heat, gas and oil? 		
<ul style="list-style-type: none"> • Are there guards on grills, ovens and frying equipment? 		
<ul style="list-style-type: none"> • Are extra or empty gas cylinders stored away from ovens and flames? 		
Equipment		
<ul style="list-style-type: none"> • Is equipment set up for easy use (not too low, not too high)? 		
<ul style="list-style-type: none"> • Is there adequate space around equipment? 		
<ul style="list-style-type: none"> • Are there guards on moving parts and sharp blades or points? 		
<ul style="list-style-type: none"> • Are potential hazards labelled? 		
<ul style="list-style-type: none"> • Are children using machines and equipment that is an appropriate size? 		
<ul style="list-style-type: none"> • Is personal protective equipment available (gloves, safety glasses, footwear, headwear, etc.)? 		
Electricity		
<ul style="list-style-type: none"> • Is the wiring safe? 		
<ul style="list-style-type: none"> • Are outlets high enough to avoid accidental contact with wiring? 		
<ul style="list-style-type: none"> • Are electrical machines and tools near outlets so wiring does not stretch too far? 		
Hygiene and Sanitation		
<ul style="list-style-type: none"> • Is there a place for workers to wash their hands before eating? 		
<ul style="list-style-type: none"> • Are there washroom facilities? 		
<ul style="list-style-type: none"> • Is waste materials and products disposed of appropriately? 		
<ul style="list-style-type: none"> • Is there a place for workers to eat, away from machines or chemicals? 		

Carpentry Safety Checklist

	YES / SAFE	NO / UNSAFE
Workshop Layout		
<ul style="list-style-type: none"> • Are floors clear of equipment, cables and furniture? 		
<ul style="list-style-type: none"> • Are there proper storage spaces for tools, especially sharp objects, when they are not in use? 		
Chemicals, Paint and Dust		
<ul style="list-style-type: none"> • Are flammable chemicals or paint stored in appropriate containers? 		
<ul style="list-style-type: none"> • Are flammable chemicals or paint used in ventilated areas? 		
<ul style="list-style-type: none"> • Is ventilation sufficient to keep dust out of the air and is dust cleaned up regularly? 		
<ul style="list-style-type: none"> • Are materials labelled to avoid the possibility of using the wrong product? 		
Equipment		
<ul style="list-style-type: none"> • Is equipment set up for easy use (not too low, not too high)? 		
<ul style="list-style-type: none"> • Is there adequate space around equipment? 		
<ul style="list-style-type: none"> • Are there guards on moving parts and sharp blades or points? 		
<ul style="list-style-type: none"> • Are potential hazards labelled? 		
<ul style="list-style-type: none"> • Are children using machines and equipment that is an appropriate size? 		
<ul style="list-style-type: none"> • Is personal protective equipment available (gloves, safety glasses, footwear, headwear, etc.)? 		
Electricity		
<ul style="list-style-type: none"> • Is the wiring safe? 		
<ul style="list-style-type: none"> • Are outlets high enough to avoid accidental contact with wiring? 		
<ul style="list-style-type: none"> • Are electrical machines and tools near outlets so wiring does not stretch too far? 		
Hygiene and Sanitation		
<ul style="list-style-type: none"> • Is there a place for workers to wash their hands before eating? 		
<ul style="list-style-type: none"> • Are there washroom facilities? 		
<ul style="list-style-type: none"> • Is waste materials and products disposed of appropriately? 		
<ul style="list-style-type: none"> • Is there a place for workers to eat, away from machines or chemicals? 		

Restaurant Safety Checklist

	YES / SAFE	NO / UNSAFE
Restaurant Layout		
<ul style="list-style-type: none"> • Is there enough space between furniture to walk? 		
<ul style="list-style-type: none"> • Is the floor clean and dry? 		
<ul style="list-style-type: none"> • Are knives and sharp objects stored safely when not in use? 		
Gas and Ovens		
<ul style="list-style-type: none"> • Is there appropriate ventilation to disperse heat, gas and oil? 		
<ul style="list-style-type: none"> • Are there guards on grills, ovens and frying equipment? 		
<ul style="list-style-type: none"> • Are extra or empty gas cylinders stored away from ovens and flames? 		
<ul style="list-style-type: none"> • Is personal protective equipment available (gloves, safety glasses, footwear, headwear, etc.)? 		
Electricity		
<ul style="list-style-type: none"> • Is the wiring safe? 		
<ul style="list-style-type: none"> • Are outlets high enough to avoid accidental contact with wiring? 		
Hygiene and Sanitation		
<ul style="list-style-type: none"> • Is there a place for workers to wash their hands before eating? 		
<ul style="list-style-type: none"> • Are there washroom facilities? 		
<ul style="list-style-type: none"> • Is waste materials and products disposed of appropriately? 		
<ul style="list-style-type: none"> • Is there a place for workers to eat, away from machines or chemicals? 		
Working Conditions		
<ul style="list-style-type: none"> • Do children work appropriate hours (not too long, not too late)? 		
<ul style="list-style-type: none"> • Are children protected from abusive or difficult customers? 		