Hazard Identification and Risk Assessment Form

INDUSTRIAL SAFETY TRAINERS Inc.

Equipment/ work process:		
Page #	**Date:**	**Department:**
Assessed by: _____		

Risk Assessment Matrix		**Severity of injury or damage**			
		Minor 1	**Moderate 2**	**Major 3**	**Severe 4**
Possibility of injury or damage	**Almost certain 4**	**Medium**	**Medium**	**High**	**High**
	Likely 3	**Low**	**Medium**	**High**	**High**
	Possibly 2	**Low**	**Low**	**Medium**	**High**
	Unlikely 1	**Low**	**Low**	**Medium**	**Medium**

Recognize			**Assess**			**Control**		**Evaluation**
Equipment Operation/ Work Process (record steps if applicable)	**Existing and Potential Hazard** (source of injury/ illness/ property damage)	**Risk** (consequence of exposure to hazard)	Probability (1 -4)	Severity (1 - 4)	Risk Rating (Low Medium High)	**Legal/ Standards Reference**	**Current Controls/ Controls Needed**	**Action Required** What is the residual risk after controls are in place?

Complete form as outlined in steps shown on the following page

Hazard Identification and Risk Assessment Form

Step 1 **Select task (equipment operation/ work process) to be assessed.**

Step 2 **Break down task into steps.**

Step 3 **Observe worker performing task and identify existing and potential hazards. Refer to hazard examples.**

Step 4 **Identify the associated risk or consequence if exposed to the hazard. Refer to risk examples.**

Step 5 **Prioritize each risk according to the Risk Assessment Matrix.**

Use the reference information below to assess the risks of harm or damage resulting from the exposure to the potential hazards before controls are used.

What is the likelihood that the hazard will cause injury, illness or property damage? how often task is performed, in what conditions, how many people are exposed & for what duration.

Probability Rating (likelihood of exposure and occurrence)	
Almost Certain 4	Expected to occur in most circumstances
Likely 3	Will probably occur in most circumstances
Possibly 2	May occur at some time
Unlikely 1	May only happen in certain circumstances

Consider: What level of consequence or harm could result if someone was exposed to the hazard, or what is the level of property damage that could occur?

Severity Rating	
Severe 4	Fatality, multiple injuries or severe illness that may prove fatal or long term disability. Extensive property/ environmental damage.
Major 3	Critical injury, illness and/ or considerable property/ environmental damage, resulting in health care and lost time.
Moderate 2	Moderate injury, illness and/ or property/ environmental damage, resulting in health care and/ or lost time
Minor 1	Minor injury or illness without health care, lost time or property/ environmental damage

Select the appropriate Probability and Severity Ratings, then determine the Risk Rating where the Probability and Severity Ratings cross on Risk Assessment Matrix.

Record the Severity/ Probability Ratings (1- 4) and the corresponding Risk Rating in the appropriate columns on the form.

Risk Rating	
High	HIGH Immediate action needed. Exposure must be restricted until the risk can be eliminated or lowered to an acceptable level (using Hierarchy of Controls), with possible long-term plans to lower further.
Medium	MEDIUM Action required as soon as possible or within short amount of time to eliminate or minimize the risk using the Hierarchy of Controls.
Low	LOW Action required within reasonable time after higher priorities or when possible, to eliminate or minimize the risk, using the Hierarchy of Controls.

Step 6 **Record related legislative/ standards/ policy requirements.**

Step 7 **Identify current controls or determine controls that need to be implemented to eliminate or control risk(s). Note: Elimination of one hazard must not create another.**

Eliminate the hazard(s) if possible. If not possible, the associated risk(s) must be addressed and controlled in order of priority and minimized as far as reasonably practicable.

Step 8 **Determine if further action is required based on remaining (residual) risk.**

Step 9 **Communicate hazards and controls. Develop a Safe Operating Procedure, if necessary, and conduct appropriate training.**

Step 10 **Monitor and evaluate controls and procedures implemented.**

Hazard Examples					
Safety	**Physical**	**Chemical**	**Ergonomic**	**Psycho-social**	**Biological**
Slip/Trip/Fall Hazard Sharp Hazards (tool/material) Inadequate housekeeping Vehicle traffic/congestion Defective equipment Moving parts/equipment Driving hazards Working at heights Overhead hazards Fire/explosive Inclement weather Mobile equipment Flying objects/debris	Noise Vibration Temperature Pressure Radiation (Sunlight, welding, microwave) Electricity Inadequate lighting/visibility Excessive glare	Gases, vapours, fumes, mists (acetylene, propane, welding fumes, carbon monoxide) Chemical liquids/solids (adhesives, sealants, cleaning products) Toxic and corrosive materials (cleaning products) Flammable/combustible liquids (solvents, gasoline, paint, oil) Dust (silica) Plasma Printer toner (excessive exposure)	Repetitive motion Sustained/awkward body postures Forceful exertion Extensive (static) sitting/standing Pushing/pulling High task repetition (same movements over a period) Contact stress (body too hard/sharp objects) Lifting/carrying Overreaching Poor workstation/tool/equipment design Vibration Poor lighting	Negative social interaction Bullying Violence Harassment Verbal/physical threats Stress Fatigue/hours of work Working alone Rushing Workplace design Poor communication Excessive workload Conflicting demands Lack of social support/relationships	Airbourne pathogens (common cold/flu) Mold and fungi Bacteria and viruses Blood and bodily fluids Sewage Stinging/biting insects Harmful Plants Contact with animals/birds, their droppings, or inhalation of related Airborne contaminates Parasites Pandemic
Risk Examples					
Sprains/strains Broken/fractured bones Struck-by/against/crushed Contusion Cut-incision/laceration Scratch/abrasion Pinch/nip Caught-in/entanglement Amputation Energy release	Hearing loss Hand-arm vibration syndrome (HAVS or Vibration White Finger) High-pressure injection Heat/cold stress Burn (sun, welding, arc, radiation, heater) Eye injury Electric shock/arc flash	Chemical occupational illness (respiratory, skin) Burns/scalds Explosions Fire Heat/cold stress Eye injury	Musculoskeletal disorders (carpal tunnel syndrome, tendinitis, back pain, muscle/tendon strain, tension neck syndrome, ligament sprain, trigger finger/thumb, ruptured/herniated disc, tennis elbow, tears) Vibration white finger/hand-arm vibration syndrome	Conflict Increased absenteeism Loss of productivity Strain (may lead to fatigue, headaches, burnout, anxiety, greater risk of accidents, incidents and injuries) Increased cost/monetary loss Higher turnover Property damage	Skin and respiratory allergies Infections Common illnesses Disease

Hierarchy of Controls

Elimination Eliminate hazardous a job, tool, process, machine or substance.

Substitution Substitute a hazardous process, tool or substance for a safer option.

Engineering Controls Redesign of work site, workstations, work processes & equipment. Isolation, automation & awareness controls.

Administrative Controls Changes to procedures/ activities, implement new procedures to reduce risk, & conduct training

Personal Protective Equipment (PPE) Select to adequately protect the worker. Train in proper use & maintenance.