



**MEDUPI POWER STATION CIVILS & SITE FACILITY SERVICES
PROJECTS SPECIFIC BASELINE RISK ASSESSEMENT**

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MEDUPI POWER STATION IDENTIFIED HAZARDS AND RISK FOR PROJECT BASELINE RISK ASSESSEMENT

LIST OF ACTIVITIES	HAZARD	RISK
Driving activitiesA7:F26	Speeding	Accident - fatality
Driving activities	Uneven road/floor surfaces	Accident - fatality
Driving activities	Wild animals	Accident - collision
Driving activities	Driving under the influence of alcohol	Vehicle accident
Driving activities	Substance abuse	Vehicle accident
Use of cell phone while driving	Community unrest/strikes	Damage to property incidents
Driving activities	Incompetent driver/operator	Property damages incidents
Driving activities	Incompetent driver	Collision with other vehicles
Driving activities	Use of cell phone while driving	Accident - fatality
Offloading and storage activities	Manual handling	Masculoskeletal Disorder
Offloading and storage activities	Unsecured load or package	Damage to the load
Offloading and storage activities	Unsecured load or package	Load falling onto body parts causing injuries
Offloading and storage activities	Sharp edges	Finger cuts injuries
Offloading and storage activities	Spillage	Enviromental contravention/ slip and fall
Offloading and storage activities	Pinch Point	Hand and finger injuries
Offloading and storage activities	Lifting heavy object/Use of incorrect lifting techniques	Masco
Offloading and storage activities	Dust(ash from ash silos)	Respiratory disease
Offloading and storage activities	Hazard from nature	Snake, spider and babon attack
Offloading and storage activities	Poor visibility	Trip and fall - injury
Offloading and storage activities	Lone working	Medical condition and animal attacks
Offloading and storage activities	Lifting of heavy stock	Body injuries
Offloading and storage activities	Wearing dark clothing while off loading and walking around the warehouse	Hit by mobile equipment (Lifting Equipment)
Offloading and storage activities	Poor ergonomics	Masculoskeletal Disorder
Offloading and storage activities	Bullying and Harrassment	Effects on mental Health
Offloading and storage activities	High Ambient temperatures	Fatigue and body exhaustion
Offloading and storage activities	Uneven surfaces	Trip and fall - injury
Paint Work:	Exposure to fumes, spills, falls, fire	Respiratory issues, skin irritation, burns, slips, poisoning from chemicals
• Prepare concrete surface for painting.	Exposure to dust, spills, falls	Respiratory issues (dust inhalation), slips, skin irritation
• Prepare steel surface for painting, including but not limited to, using wire brush and or mechanical brush.	Exposure to metal debris, dust, vibration from tools	Eye injuries, respiratory issues (dust inhalation), hand fatigue

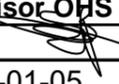
• Spot priming defects in pre primed surfaces with zinc chromate primer and apply one undercoat and two alkyd enamel paint on steel.	Exposure to fumes, skin contact with chemicals, falls from ladders	Respiratory issues, skin irritation, poisoning from chemicals, slips
• Paint pressed steel door frames using enamel paint.	Exposure to fumes, falls, repetitive motion strain	Respiratory issues, skin irritation, burns, musculoskeletal strain
• Demarcation of floors.	Exposure to fumes, slips, falling on uneven surfaces	Respiratory issues, skin irritation, slips and falls
• Painting of all building surfaces and bund walls.	Exposure to fumes, spills, falls, improper lifting	Respiratory issues, skin irritation, burns, musculoskeletal injuries,
Plumbing		
Plumbing (General)	Exposure to hazardous materials (e.g., sewage, chemicals), falls, cuts, working with tools	Infections from contaminated water, cuts, bruises, back strain, electrical shock
Installing pipes and fixtures	Exposure to heavy equipment, falls, lifting materials, toxic gases	Back injuries, cuts, sprains, respiratory issues (from chemicals or gas)
Clearing blockages in pipes	Exposure to sewage, use of mechanical tools, slips	Infections, eye injuries, back injuries, falls, chemical exposure
Welding pipes and fittings	Exposure to sparks, fumes, burns, hot surfaces	Burns, eye injuries (from bright light or flying sparks), respiratory issues
Waterproofing and sealing	Exposure to chemicals, falls, repetitive motion	Skin irritation, respiratory issues, joint strain from repetitive motion
Testing for leaks	Exposure to pressurized water, tools, falls	Burns from hot water, electrical shock (if working near electrical systems), cuts
Unblocking drainpipes	Exposure to sewage, hazardous chemicals, slips, sharp objects	Infections, respiratory issues (from fumes or bacteria), skin irritation, cuts, back injuries,
Manually removing blockages	Exposure to waste, unpleasant odors, contact with sharp objects	Infections, cuts, skin irritation, respiratory issues from fumes or bacteria
Using drain cleaning chemicals	Chemical exposure, skin contact, inhalation of fumes	Chemical burns, skin irritation, respiratory problems, poisoning from inhalation
Working in confined spaces (e.g., crawl spaces or basements)	Limited ventilation, physical strain, exposure to contaminants	Respiratory issues, claustrophobia, back strain, fatigue, physical injury from awkward positions
Carpentry		
Carpentry (General)	Exposure to sharp tools, power tools, heavy lifting, wood dust	Cuts, lacerations, eye injuries, respiratory issues (from wood dust), back and muscle strain
Cutting wood using saws	Exposure to flying debris, power tool malfunction	Eye injuries, cuts, lacerations, hearing damage from loud noise
Using hand tools (e.g., hammers, screwdrivers)	Striking, slipping, improper tool handling	Cuts, bruises, hand fatigue, sprains, repetitive motion injuries
Sanding or finishing wood	Exposure to dust, fumes from paints or finishes	Respiratory issues (from inhaling wood dust or fumes), skin irritation, eye injuries
Installing or fitting heavy materials	Lifting heavy objects, improper posture	Muscle strain, back injuries, drops, and impact injuries
Working with power tools (e.g., drills, saws, nail guns)	Risk of electric shock, flying debris, tool malfunction	Eye injuries, lacerations, electrical burns, hearing loss, fractures
Working at heights (e.g., scaffolding, ladders)	Falling from height, unstable surfaces	Fractures, head injuries, sprains, and sprains due to falls

Maintenance of building facilities and plant		
· Tile walls and floors using ceramic tiles.	Working at heights (for walls), cutting tiles, handling wet materials, use of adhesives, lifting heavy materials	Slips and falls, cuts from sharp tiles, eye injuries from flying debris, musculoskeletal strain, skin irritation, inhalation of dust or fumes, back injuries from lifting
· Building repairs (roof, walls, and floors)	Working at heights, lifting heavy materials, exposure to hazardous substances (e.g., asbestos, mold), power tools	Falls, head injuries, musculoskeletal injuries, cuts, respiratory issues (from asbestos or dust), eye injuries, equipment-related injuries, burns, electrical shock
· Sealant work	Exposure to chemicals (sealants, adhesives), working in confined spaces, slips, falling objects	Skin irritation, respiratory problems, chemical burns, inhalation of fumes, eye injuries, slips and falls, exposure to toxic fumes
· Move office furniture on site.	Lifting heavy objects, awkward posture, working in confined spaces, using moving equipment (e.g., dollies)	Muscle strain, back injuries, cuts, sprains, slips and falls, equipment-related injuries
· Handy man jobs.	Various tasks, exposure to sharp tools, power tools, chemicals, working at heights, lifting heavy objects	Cuts, lacerations, burns, electrical shock, falls, muscle strain, repetitive motion injuries, exposure to chemicals
· Gutters cleaning.	Working at heights, exposure to debris, slippery surfaces, use of ladders	Falls from ladders, cuts from sharp debris, respiratory issues from dust or mold, musculoskeletal strain
· Paving.	exposure to hot asphalt, lifting heavy materials, working at heights	Burns from hot asphalt, cuts, eye injuries from equipment, back and muscle strain, falls, respiratory issues from fumes or dust
· Bund walls.	Working with heavy materials, exposure to hazardous chemicals, working at heights	Musculoskeletal injuries, respiratory issues, chemical exposure, falls, eye injuries, cuts and lacerations
· Windowpanes and frames	Working at heights, handling glass, using power tools, falls	Cuts from glass, lacerations, falls from ladders or scaffolding, musculoskeletal injuries, eye injuries from tools or flying debris
· General cleaning and maintenance of equipment	Slips, exposure to cleaning chemicals, moving parts	Chemical burns, respiratory issues, cuts from sharp parts, slips and falls
Signage	Working at heights, handling heavy materials, exposure to electrical hazards, use of power tools	Falls from ladders or scaffolding, musculoskeletal strain from lifting or positioning signs, cuts or lacerations from sharp edges of signs, electrical shock from installing illuminated signs, eye injuries from cutting or drilling
Pipe works and this will include excavation on some pipe work:	Excavation hazards (cave-ins), exposure to underground utilities, manual handling, working in confined spaces, chemical exposure	Cave-ins, musculoskeletal strain, back injuries, cuts and lacerations, electrical shock, gas leaks, drowning, respiratory issues from hazardous gases or chemicals in underground pipes
Access, working platforms and scaffolding	Inadequate securing, unstable surfaces, incorrect ladder use, carrying tools while climbing	Falls, muscle strain, head injuries, slips
Access for and interface with other contractors	Lack of communication, blocked pathways, conflicting work schedules	Delays, confusion, traffic congestion, accidents due to workers being in the wrong places at the wrong times
Sharing common workspaces (e.g., scaffolding, platforms)	Inadequate space, improper organization, overlapping tasks, uncoordinated use of equipment	Inadequate space, improper organization, overlapping tasks, uncoordinated use of equipment

Coordinating access to confined spaces (e.g., tanks, ducts)	Multiple contractors needing to access the same confined space, poor communication about space	Asphyxiation, toxic exposure, explosions, confined space injuries, equipment clashes, lack of ventilation
Fabrication and installation		
Fabrication of structural components (steel, metal, etc.)	Exposure to sharp edges, burns, flying debris, heavy lifting, use of heavy machinery	Cuts from sharp edges, burns from welding, musculoskeletal injuries, eye injuries from flying debris, crushing injuries from lifting
Welding and cutting metals	Exposure to heat, sparks, fumes, UV radiation, fire risk, electric	Burns, respiratory issues from fumes, eye damage from UV radiation, fire hazards, electric shock
Operating fabrication machinery (e.g., lathes, presses)	Mechanical failure, improper tool use, entanglement, electrical hazards	Crushing injuries, cuts, amputations, electric shock, eye injuries from flying metal particles
Handling and transporting fabricated materials	Falling objects, manual handling injuries, improper lifting techniques	Musculoskeletal strain, sprains, slips, trips, falls, crushing injuries from dropping heavy materials
Installation of fabricated structural components	Falls from height, improper lifting or rigging, falling objects, unstable platforms	Falls, musculoskeletal injuries, head injuries, crushing injuries from falling components, cuts from sharp edges
Erection of steel structures (e.g., beams, columns)	Falling from height, working with heavy materials, rigging errors	Falls from height, struck by falling objects, crushing injuries, sprains from lifting heavy materials
Use of power tools (e.g., circular saws)	Cuts, burns, flying debris, electric shock, repetitive motion injuries	Cuts, burns, eye injuries, electric shock, carpal tunnel syndrome, musculoskeletal strain
Installing windows, doors, and glazing systems	Lifting heavy panels, falling from height, glass breakage	Cuts from broken glass, falling from height, musculoskeletal injuries from lifting
Roof installation (e.g., panels, flashing)	Working at height, exposure to weather conditions, unstable scaffolding	Falls from height, slips, sunburn, musculoskeletal injuries from lifting heavy panels, electrocution if near electrical lines
Insulating walls and ceilings	Exposure to dust, chemicals, falls, cuts from sharp materials	Respiratory issues from dust, skin irritation, musculoskeletal injuries, slips, trips, falls
Installing flooring and tiles	Slips, falls, cuts, musculoskeletal injuries, exposure to adhesives	Slips, sprains, strains, cuts, respiratory issues from fumes, skin irritation from adhesives
Installation of heavy machinery or equipment	Exposure to toxic fumes, burns, slipping, manual handling injuries	Chemical exposure, thermal burns, slips, trips, sprains, musculoskeletal injuries
Delivery and placement of temporary ablation units	Manual handling, vehicle traffic, slips, trips, and falls, unstable ground	Musculoskeletal injuries from lifting, vehicle accidents, slips, trips, falls, injuries from equipment movement
Civil and Structural scope of works		
Site clearing and grubbing	Exposure to sharp objects, equipment malfunctions, unstable ground	Cuts, musculoskeletal injuries, vehicle accidents, falls
Excavation works	Cave-ins, equipment collisions, falling debris, exposure to underground utilities	Crushing injuries, asphyxiation, struck by falling objects, electrical hazards
Trenching and shoring	Falling into trench, collapse of trench walls, unstable soils	Buried by collapse, crushing injuries, falls, musculoskeletal injuries
Soil compaction and leveling	Equipment malfunction, vibration hazards, uneven ground	Strains, sprains, vehicle accidents, hearing damage from noise
Concrete pouring and finishing	Exposure to concrete splashes, high temperatures, heavy lifting	Chemical burns, eye injuries, musculoskeletal injuries, heat stress
Reinforced steel bar installation	Cuts from sharp bars, manual handling, entanglement	Lacerations, musculoskeletal injuries, tripping
Column and beam construction		
Soil Testing	Exposure to chemicals, dust, confined space	Respiratory issues, chemical exposure, confined space hazards
Foundation Works	Falling tools, manual handling, machinery accidents	Injuries from falling tools, back strain from lifting, crush injuries from machinery
Reinforced Concrete Works	Concrete splashes, heavy lifting, working at heights	Burns or eye injury from concrete, musculoskeletal injuries, falls

Formwork Installation	Falling objects, working at heights, improper formwork	Falling from height, injuries from unsecured formwork, crushing injuries
Reinforcement Installation	Rebar puncture, cuts, heavy lifting	Injury from sharp rebar, strains from lifting heavy steel, puncture wounds
Masonry and Brickwork	Falling materials, hand tools, manual handling	Struck by falling bricks, cuts or bruises from tools, strains from lifting
Road and Pavement Construction	Vehicle traffic, moving machinery, working at height	Accidents with vehicles, injuries from machinery, falls from height
Structural Integrity Testing	Falls from height, structural collapse, exposure to hazardous substances	Falling from scaffolding or test areas, structural failure, chemical exposure
Operating mobile equipment	Blind spots, heavy machinery operation, Falling loads, poor weather & visibility, unstable ground conditions	Injury to workers, equipment damage, Accidents, injuries, equipment damage

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