Job Hazard Analysis (JHA)

Permit No:	123456	JHA Reviewed & Approved	Name / Signature	Date
		PICWS All	T Lindsay	10/10/2023
Task:	Water blasting fin fans with lance inside grating and between fan blades	AT = or > 5	S Haigh	10/10/2023
		PI = or > 10	N Pickering	10/10/2023
		ROS = or >12		

Task Description	Hazard	Top Event	Consequence	Controls & Barriers	Recovery	Person Responsible
Describe the task in detail.	Choose from drop downs or use free text to record Hazards Identified	Choose from drop downs or use free text to record Top Event Identified	How / Who / What / might be harmed	What am I going to put in place to reduce the risk from the hazard.	What am I going to do if controls or barriers fail	Who is to action the recovery
Vehicle entry	Hydrocarbons (gas)	Fire / Explosion	Vehicle ignites gas cloud from unrelated leak causing injury to work party and asset damage	* Gas test as per permit requirements * AT permission before entry * As per checklist 24-Vehicle entry into hazardous areas	1. Turn off vehicle 2. Activate MCP 3. Medical assistance if required 4. Notify operations	1. Driver 2. All work party 3. All work party 4. PICWS
Access and Egress work site scaffold	Personnel and Equipment at Height >1.8m	Personnel Falling	Personnel injured by fall through slipping on ladder while carrying equipment to work platform	Use a haul rope to haul hoses and equipment to and from work platform	Stop and seek medical assistance	Work party
		Dropped Object	Groundsman or other personnel impacted by dropped hoses or equipment	* Groundsman stands clear while equipment hauled to/from work platform * Erect barriers to prevent others entering drop zone * As per checklist 88 Prevention of dropped objects from height	1. Stop work 2. Call for medical assistance 3. Notify operations	1. All work party 2. Groundsman 3. PICWS
Water blast fin fan tubes using IC engine water blast unit. Water blasting lance pushed through grating and between blades. (Grating stays in situ)	Hydrocarbons (gas)	Fire / Explosion	IC engine ignites gas cloud from unrelated leak causing injury to work party and asset damage	* Position water blaster area as ageed with Ops * Gas testing as per permit requirements * Groundsman assigned to shutdown water blaster if gas detected or site siren activated * As per checklist 16 Blasting & Painting	1. Stop work 2. Activate MCP 3. Medical assistance if required 4. Notify operations	1. All work party 2. All work party 3. All wory party 4. PICWS
	Exhaust Fumes (CO)	Immediate health affect (Injury)	Work party incapacitated by exposure to exhauste fumes	Ensure water blaster positioned so fumes do not impact work party	1. Stop work 2. Call for medical assistance 3. Notify operations	1. All work party 2. All work party 3. PICWS
	Damaging Noise	Long-Term health affect (Occ harm)	Long term hearing loss to personnel through exposure to loud noise	* Position water blaster so nosie does not impact work party * Grade 5 hearing protection for personnel in vicinity of water blaster or all work party if control 1. unable to be achieved	N/A	N/A
	Equipment with Moving or Rotating Parts	Immediate health affect (Injury)	Fan moving causes water blasting lance to injure blast operator	* Confirm isolation of fin fan prior to starting blasting * Fit hold card	1. Stop work 2. Call for medical assistance 3. Notify operations	1. All work party 2. All work party 3. PICWS
		Asset Damage (Plant/Process)	Fan blade and water blasting lance damaged by fan moving		1. Stop work 2. Notify operations	1. All Work party 2. PICWS
	Water under pressure - Water Blasting, hydro testing etc.	Equipment Damage / Failure (Tooling, hoses etc.)	Person injured though high pressure water from failed hose or mis-directed lance	* Barrier off area * Check hoses and equipment in good condition and certified before starting	1. Stop work 2. Call for medical assistance 3. Notify operations	1. All work party 2. All work party 3. PICWS
		Flying Object / Projectile	Water blasting debris in eyes of blast operator	Blast operator to wear double eye protection	1. Stop work 2. Call for medical assistance 3. Notify operations	1. All work party 2. All work party 3. PICWS
		Asset Damage (Plant/Process)	Electrical equipment damaged by water ingress	* Identify electrical equipment before starting * Avoid blasting identified equipment	Notify operations if suspect equipment has been damaged	PICWS

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Record Hazards of the Day Below

Hazard Identified and consequence to work party? (Hazard) (Consequence)	**What controls and recovery are we putting in place?** (Controls) (Recovery)	**Time**	**Initial** (PICWS)
		Time:	
		Time:	
		Time:	
		Time:	
		Time:	
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		Time:	
		Time:	
		Time:	
		Time:	

Hazard categories and subcategories

Remote or Lone Worker
Working remotely or alone
Hydrocarbons
Hydrocarbons (Condensate)
Hydrocarbons (gas)
Hydrocarbons (LPG's)
Hydrocarbons – Other
Refined Hydrocarbons
Fuels (Petrol/Diesel)
Refined Hydrocarbons – Other:
Other Flammable Materials
Flammable Materials (Wood, cloth, pyrophorics etc.)
Explosives
Explosives
Pressure Hazards
Bottled Gasses Under Pressure
Water under pressure – Water Blasting, hydro testing etc.
Pressure Hazards – Other:
Hazards Associated with Differences in Height
Personnel and Equipment at Height >1.8m
Personnel and Equipment at Height <1.8m
Personnel Below Grade
Hazards Associated with Height – Other:
Objects Under Induced Stress
Objects or Pipework Under Tension
Objects or Pipework Under Compression
Dynamic Situation Hazards
Road Transport (Driving)
Equipment with Moving or Rotating Parts
Use of Knives and other similarly hazardous hand tools
Dynamic Situation Hazards – Other:
Environmental Hazards
Weather
Hydrocarbon or chemicals in outfall water
Environmental Hazards – Other:
Hot Surfaces
Hot Surfaces and piping

Hot Fluids
Hot Fluids
Open Flame
Welding Flame (Gas Torch in Hazardous Area)
Grinding sparks (in Hazardous Area)
Open Flame – Other
Electricity
Low Voltage > 50 – 440V
High Voltage Electrical > 440V
Electrostatic Energy (Static)
Batteries
Electricity – Other:
Electromagnetic Radiation
Electromagnetic Radiation
Ultraviolet Radiation
Microwaves
Lasers
Ionising Radiation - Open Source (Unshielded)
Ionising Radiation – Open Source (Unshielded)
Naturally Occurring ionising Radiation
Ionising Radiation - Closed Source (Shielded)
Ionising Radiation – Closed Source (Shielded)
Alpha, Beta – Closed Source
Gamma Rays – Closed Source
Neutron – Closed Source
Asphyxiates
Insufficient Oxygen Atmospheres
Excessive CO_2
Drowning
Excessive N_2
Smoke
Asphyxiates – Other:
Toxic Gases
H_2S – Hydrogen Sulphide
Exhaust Fumes (CO)
BTEX's
Welding Fumes
VOCs including thinners
Toxic gases – Other:

Toxic Liquids
Mercury
Methanol
Brines
Glycols
Degreasers
Corrosion Inhibitors
Ethyl Mercaptan (odorant additives)
Used Engine Oils
Herbicides, Insecticides.
General Purposes Cleaners, Detergents
Toxic Liquids – Other:
Toxic Solids
Asbestos
Man-made Mineral Fibres
Dusts
Oil Based Sludges
Oil, Lead or Zinc Based Paint
Toxic Solids – Other:
Corrosive Substances
Corrosive Substances – Other:
Ergonomic Hazards
Manual Materials handling
Damaging Noise
Heat Stress
Cold Stress
Vibration
Lighting
Awkward Location of Workplaces and Machinery
Long and Irregular Working Hours / Shifts
Work Planning Issues
Ergonomic Hazards – Other:
Medical
Pre-existing medical condition
Hazardous Goods
Dangerous Goods in Transport Activities
Hazardous Goods – Other:

Top Events
Fire / Explosion
Spill
Asset Damage (Plant/Process)
Equipment Damage / Failure (Tooling, hoses
Personnel Falling
Dropped Object
Flying Object / Projectile
Contact with energised electrical equipment
Contact with moving or rotating parts
Contact with stationary equipment
Long-Term health affect (Occ harm)
Immediate health affect (Injury)
Un-planned plant shutdown
Other: (details?)