



RISK ASSESSMENT

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Revision:00

STRINGING

PROJECT / LOCATION	DATE	DATE OF NEXT ASSESSMENT
Job No.		
TASK / ACTIVITY		
STRINGING		

Ref	Workplace/Activity/ Process/ Equipment/Materials	Hazards	Risks Issue (Possible incident) [What can go wrong] (Accident/ill health to persons, fire or property loss)	Existing Controls	Base Risk Ranking (Without Controls)			Improved Existing Controls / Implementing New Controls	Risk Reduction Action Plan			Follow up by Whom (name) & By When (date)	Controls Implemented	
					L	R	RR		L	R	RR		YES	NO
1	Unloading of pipe from the flatbed lorry.	Operatives being struck by pipe during unloading. Contact with overhead services Collapse of lifting appliance during loading/unloading of pipe. Fall of personnel off pipe/lorry.	Crushing/entrapment of operator. Electrocution. Crushing/entrapment of operator. Property damage. Minor/Serious injury as a result of fall.	Chain, slings, hooks etc. Function properly and haven't expired (referring to certifications). Only personnel involved in the task are to be present at the loading and unloading area. The unloading area is to be fully cordoned off. Operatives establish eye contact with the crane operator or bank man before approaching the area. Slinger/Bankman to be in constant visual contact with the machine operator during loading/unloading. Guide ropes are to be used during the lifting of the pipe. Personnel not on flatbed during unloading. The pipe is not unloaded in high winds or electrical storms. Survey unloading area to identify the location of overhead utilities (power lines, conduits, etc.)". Unloading operations are not to be carried out within the goalpost zone. Storage of pipe and other materials prohibited within the goalpost zone. Slinger/banks man to be in constant visual contact with machine operator during lifting. The unloading area is to be surveyed for suitability of ground conditions. The Safe Working Load (SWL) of the side boom is not to be exceeded, the safe load indicator is to be functioning correctly. Fall protection is in place where a person is liable to fall. Walking on the pipe is not permitted. Ladders to get on/off the pipe lorry.	4	4	16	Only Competent or trained machine operators are to be utilised. Taglines/guide ropes to be used for the movement/placement of suspended load. Only Competent or trained machine operators are to be utilised. Only Competent or trained machine operators are to be utilised. Machine to have current certification. Ladders of appropriate size/length are utilized by slingers for attaching pipe clamps to pipe ends at higher levels or for attaching chocker-belt to pipe.	4	2	8	Project Engineer Project Supervisor Project QHSE Engineer	YES	
2	Loading/unloading of pipe by heavy machine	Persons being struck by suspended pipe causing. Persons being struck by moving equipment.	Serious injury or harm. Serious injury or death Electrocution	SWL is not exceeded. Loading/Unloading activity will supervised by a competent person area is for authorized personnel only. Only workers	4	3	12	Taglines/guide ropes to be used for the movement/placement of suspended loads.	3	2	6	Project Engineer Project Supervisor	YES	

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	to/from stringing tractor.	Persons being struck by the suspended load. Contact with overhead services. Failure of lifting equipment/lifting gear.	Crush Injury [may be severe, even fatal]. Property damage.	involved in lift operations are to be in a 'hazard zone'. All lifting gear is in good order with current certification. Only workers involved in lift operations are to be in the 'hazard zone'. To ensure safety, all overhead and buried services are identified and protected before any stringing commences. Height-restricting goalposts will be erected made of non-conducting high visibility material. Goal posts will be erected outside the hazard zone. Where machines are required to operate within the hazard zone a dedicated Banksman/Slinger shall be posted to supervise work activity. Hazard warning signage was erected adjacent to overhead services. A hazard zone is to be created. Only workers involved in lift operations are to be in the 'hazard zone'. All lifting operations are planned by a trained and competent Appointed Person. All lifting gear is in good order and inspected prior to the start of the activity.				When working near overhead power lines operators will comply with permits and other restrictions agreed with local authorities. Before you begin work, ensure you understand the safe system of work outlined for this project. If you have any questions, ask your supervisor for clarification. Permits in place and signed off before working in the vicinity of overhead services. Trained and competent plant operator and slinger/ signaler. All lifting gear and lifting equipment are certified and in good order with current certification.				Project QHSE Engineer		
3	Transportation of pipe along pipeline route on pipe carrier.	Crushing/entrapment of body/body part.	Minor/serious injury or death as a result of being struck by a pipe or pipe carrier.	The pipe was secured to the pipe carrier using ratchet straps before transportation along the pipeline route. Personnel are not to walk alongside pipe carriers during stringing operations.	5	3	15	Ground Conditions: Assess the soil-bearing capacity for pipe carrier weight distribution. Use mats or alternative support if the ground is soft or uneven. Weather Conditions: Avoid transporting pipes during high winds, heavy rain, or low visibility. Implement additional securing measures if inclement weather is unavoidable. Night Operations: Ensure proper lighting illuminates the route and loading/unloading areas. Utilize reflective signage and markings on the pipe carrier for better visibility. Emergency Procedures: Develop a plan for responding to incidents like pipe roll-off, equipment failure, or injuries. Regularly train personnel on emergency procedures and use of safety equipment.	4	2	8	Project Engineer Project Supervisor Project QHSE Engineer	YES	
4	Pipes stored on Bunds.	Displacement of the pipe due to the collapse of sand bunds.	Injury due to crushing or entrapment. Property Damage.	Pipe bunds are to be correctly prepared and inspected prior to pipes being placed. Inspection should also take place regularly to review the integrity of the bunds/stop ends in particular after a period of climate weather.	4	4	16	Bund Integrity: Regularly conduct bund wall integrity checks to ensure they can effectively contain potential leaks. Implement a drainage system within the bund to collect and safely remove leaked fluids.	3	2	6	Project Engineer Project Supervisor Project QHSE Engineer	YES	

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								Inventory Management: Maintain accurate inventory control of the fluids stored in the pipes. This helps minimize the potential for spills by keeping the volume of contained fluid to a necessary level. Emergency Preparedness: Provide training for personnel on procedures for responding to leaks from pipes located on bunds. This ensures a swift and coordinated response to minimize any damage. Keep spill containment materials readily available near the bund. These materials can be used to absorb and contain leaks, preventing further environmental contamination.						
5	Placement of pipe in position on the Row	Slipping of pipe off supports/ Cradles turning over of supports, or failure of securing chains.	Injury due to crushing or entrapment.	All plants are to have audible and visual reversing aids. All personnel have received task toolbox talk before commencement and each operative clearly understands his responsibilities. Taglines/guide ropes to be used for the movement/placement of suspended pipe. The placement of Pipes shall be checked to ensure that they are secure before removing securing chains from the transporter/side boom/excavator. Pipes are to be placed on suitable supports. Sandbags and timber chocks/ skids are to be used to ensure pipes are on firm footing, as per good practice. Ensure workers do not position themselves in close proximity between a slung load and a static load. Banskman/Slinger to assist at all times. All personnel will wear as a minimum high-viz clothing, overalls, hats boots and gloves.	4	3	12	Only certified slinger/bank man are utilized. The area of stringing is cordoned off and closed to other workers. All plants are to have only certified operators.	4	2	8	Project Engineer Project Supervisor Project QHSE Engineer	YES	
6	Transport of material with machines.	Persons being struck by moving equipment. Persons being struck by the suspended load.	Injury or harm	No unauthorised personnel are allowed within operations. Workers to wear high-visibility vests and helmets at all times. Workers are to keep clear of moving machinery at all times and not to approach until signalled by the machine operator. Banskman/Slinger will be deployed to assist in reversing moving plant & machinery. Reversing alarms in every machine.	5	4	20	Operators are trained and competent. Flashing beacons in every machine.	5	2	10	Project Engineer Project Supervisor Project QHSE Engineer	YES	
7	Plant Machinery Operations.	Collisions with another plant on site. Contact with moving machinery. Overturning.	Groundworkers being struck by heavy plants causing crush injury or fatality or Ground workers being struck	Designated haul route of travel. Right of way is always given to laden vehicles. No speeding or tail-gating.	4	4	16	Pedestrians to use pedestrian access routes where provided. Competent & experienced plant operators trained to local standards.	3	2	6	Project Engineer Project Supervisor	YES	

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		Contact with overhead or underground services. Plant in collision with public traffic while exiting the site onto the public road.	by material being lifted by machinery causing major injuries Asset damage Fire Electrocution	No unauthorised personnel are allowed within operations. Workers to wear high-visibility vests and helmets at all times. Workers are to keep clear of moving machinery at all times and not to approach until signalled by the machine operator. Banksman will be deployed to assist in reversing moving plant & machinery. Keep out of the swing radius of the machine. Fire extinguishers are to be kept in machines. No mobile phone use by drivers while operating the plant. Goalposts, bunting and warning signs are to be put in place at all points where equipment etc. must pass underneath overhead lines. Synchronized movements where the plant is operating nearby. Line of fire awareness. Audible reverse alarms function correctly on all plants.				CCTV and/or convex mirrors to provide 360° vision for the operator. Flashing Beacons. Heavy plants passed the periodic inspection as prescribed by local law. Establish traffic control measures when the plant needs to exit the site. This will consist of flagmen, traffic directors and warning signage.				Project QHSE Engineer		
8	Manual Handling.	Moving and handling equipment. Slewing loads. Pinch points.	Hand injuries, hit by slewing loads, bone injuries (i.e. fractures, crush injuries in pinch points, arthritis), back strain, back pain, sciatic nerve pain, degenerative disk injuries, repetitive strain injury, musculoskeletal injuries, soft tissue injuries (i.e. damaged tendons, stretched ligaments, damaged cartilage, muscle injuries), reduced mobility, cuts to hands whilst tying wire burns.	Certified mechanical lifting appliances to be used to carry awkward or heavy loads. Job rotation is to be utilised to minimise the risk of repetitive strain injury and back strain. Tag lines to be used during lifting operations to transport materials into position. Gloves are to be worn by operatives in the vicinity of the work area. All personnel involved in the slinging operation are to be made aware of pinch-point hazards and associated risks. Ensure the line of vision is not obstructed by equipment etc. to reduce the risk of trips and falls.	4	4	16	All operatives will have received manual handling training. Manual Handling techniques will be enforced on-site during the induction. Use of tongs to handle timber skids.	4	2	8	Project Engineer Project Supervisor Project QHSE Engineer	YES	
9	Walking on site.	Slips Trips and falls.	Personal injury i.e. hand injuries, facial injuries, broken/ dislocated bones, cuts/ bruises/ lacerations.	Due care to be taken when carrying out work. Wear all appropriate PPE. Awareness in the toolbox talks of potential location issues, including working on slippy timber mats, and uneven and soft ground conditions. Restriction of unauthorised personnel. Stay on hard-standing areas as much as possible. No one is working under any circumstances. Housekeeping.	4	4	16	Works to be carried out preferably in Daylight or provide sufficient lighting. Tower lighting will be in place for work to be carried out at night.	4	2	8	Project Engineer Project Supervisor Project QHSE Engineer		
10	Working at or adjacent to public roads.	Live traffic.	Crush Injury [may be severe, even fatal] Ground workers	Advance warning signs to be put in place to alert motorists. For your safety, please wear Hi-Vis clothing at all times.	4	4	16	Appropriate advance signage to be in place for the works to comply with the traffic signs manual as provided by	4	2	8	Project Engineer Project Supervisor		

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			being struck by moving public vehicles.	Lone working is not permitted under any circumstances. Under no circumstances will plant cross public roads without flagmen equipped with the appropriate flag in place. Banksman to direct the plant across the road. Tyres or similar to protect the road surface. Roads to be swept clean after crossing is complete				local authorities and regulations. A competent person to supervise the signage requirements and the placement.				Project QHSE Engineer		
11	Working close to the heavy plant.	Moving Plant and Machinery.	Physical injury, death.	Do not approach any moving plant or equipment until you are sure you have the attention of the bank's man or operator. All personnel are to wear Hi-Vis clothing at all times. Reverse beeper fitted in every machine. Workers are to keep clear of moving machinery at all times and not to approach until signalled by the machine operator.	4	4	16	Flashing Beacons. Competent & experienced plant operators	4	2	8	Project Engineer Project Supervisor Project QHSE Engineer		

Note: This Risk Assessment must be reviewed if the execution of a new job or any incident occurred on the work site and also after completing 12 months.

Risk Methodology									
RISK MATRIX					RISK RANKING	Likelihood (Probability Levels)	Consequences (Impact Levels)	Consequences (Impact Levels)	
Likelihood	Consequences					H – High	5- Frequent: More than 75%. Very likely to occur or already happened.	Human	Environment
	1-Slight	2-Minor	3-Moderate	4-Major	5-Massive			1-Single person of the workforce is injured, but able to continue work.	1-Minor environmental impact which is localized and easy to remedy.
Frequent	5	10	15	20	25	M – Medium	4- Probable: 51% to 75%. More than likely to occur than not.	2-Single person in the workforce 1 or 2 days off work with a moderate reversible health effect.	2-Moderate environmental impact within the Project area of influence.
Portable	4	8	12	16	20		3- Seldom: 50%. Chances for occurrence/non-occurrence are equal.	3-Single person in the workforce 3 days off work with a moderate irreversible health effect.	3-Significant environmental impact beyond the Project Area of Influence.
Seldom	3	6	9	12	15	L – Low	2- Unlikely: 10-49%. Less likely to occur than not	4-1 fatality or single person of public hospitalized or with severe irreversible health effect.	4-Major environmental impact beyond the Project Area of Influence which is hard to remedy.
Unlikely	2	4	6	8	10		1- Improbable: Up to 10%. Improbable.	5-Multiple fatalities or multiple persons of public hospitalized or with severe irreversible health effects.	5- Catastrophic damage to the environment which cannot be contained and which interrupts the pipeline development progress.
Improbable	1	2	3	4	5	Ranking / Risk must be moderate (M) or low (L) before you can start work.			

RISK ASSESSMENT TEAM		
Prepared By	Reviewed By	Approved By
Name:	Name:	Name:
Date:	Date:	Date: