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Project:	ABC						
Title of Activity:	Scaffolding Erection D	ismantling and Modifica	tion Wor	k			
Assessor:		Assessment Date:		00/00/00	000	Next Review Date:	
		RISK RATI	NG MAT	RIX			
Duchahilitu				Conse	quences		
Probability	Insignificant (1)	Minor (2)	Mode	erate (3)	Major (4)	Catastrophic (5)
Rare (1)	1	2		3	4		5
Possible (2)	2	4		6	8		10
Likely (3)	3	6		9	12		15
Often (4)	4	8		12	16		20
Frequent/Almost Certain (5)	5	10		15	20		25
15-25	Extreme Risk	Activity or industry should	not procee	ed in the cur	rent form		
8-12	High Risk	Unacceptable; Activity or i	ndustry to	be modified	to include remedial pla	nning and action and be subj	ect to a detailed assessment
4-6	Moderate Risk	Activity or industry can pro	ceed subj	ect to manag	gement and/or modifica	tion	
1-3	Low Risk	Acceptable without require	ed further	action. No ad	ction is required unless	escalation of risk is possible	
	Risk Assessment Prepare	ed By					
Name		Designation	Signa ture	Date			
					1		
	Reviewed and Approve	d By					
Name	Desig	nation	Signa	Date			
			ture				

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5	SR	Operation/Issue	Hazard	Risk	L	С	RR	Control Measures to Avoid or Minimise Risk	L	С	RR	Residual Risk
1		Site preparation	 Poor communication between work parties. Inexperience persons / lack of safety awareness Heat stress Noise Vehicles Movement 	 Loss of assets, personnel injury, back injury. Bodily Injury Hand Injury 	3	3	9	 ORG. employees shall have mandatory training. Work permit from the client, with all concurring parties' signatures approval must be obtained prior to start of work and display at site Safety requirements stated on the work permit must be available on site and strictly followed Toolbox talk shall be conducted to all personnel on site & documented before start of work. Appropriate PPE shall be worn by all personnel at site. Assigned trained dedicated Banks man for job with reflective jacket. No water no work policy shall be followed. Work Schedule according to heat Index Ear protection shall be worn where required. Noise meter will be made available at site. Maintenance of equipment on regular basis. Use of Approved/Trained license drivers. 	1	3	3	Lifting engineer, HSE Officer, Lifting Supervisors

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							 Vehicle movements on site shall be controlled by banks man Appropriate signage to be provided. Conduct toolbox talk and LMRA prior to start of work at the specific location. 				
2.	Transportation and shifting materials for the scaffolding by means of various vehicles such as heavy crane, trailer, trucks and pickup, etc.	 Failure of equipment /crane /Trailer/ Pickup/ Truck etc. Road traffic accident during transportation of Tanks shell plates, pipe spools/ supports and other material. Body part injury during loading and unloading operation Pinch point. 	 Loss of assets, personnel injury, back injury. Bodily Injury Hand Injury Personnel injury, loss of assets, health impact, body injury. 	3	3	9	 Ensure the condition of equipment, inspected, sticker Placed and for appropriate color code. All rigging gear shall be certified. Synthetic belt or nylon sling shall be used instead of steel wire rope for holding of material. Ensure crane operators and riggers fully understand all work tasks and hazards. Load shall be secured on the trailer bed to prevent accidental fall. Crane operator shall have the third party, certified and applicable license. Use proper tag line during loading /offloading material. Access route shall be surveyed before transporting the Shell Plates, pipes & support material etc. Barricade with appropriate sign board on the effective area. Riggers shall be experienced and third party certified. Use leather gloves for hand protection. Keep away body parts (hand, feet, head, etc.) from the line of fire (LOF). Suitable length of trailer shall be arranged according to length of Shell Plates, pipe spools, supports etc. 	1	3	3	Lifting engineer, HSE Officer, Lifting Supervisors

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3. Scaffolding erection dismantling including Material Storage	 Simops Segregation and Stacking Failure Incorrect Manual Handling Pinch point Eye Injury Fire Slips, Trips, and Falls Lack of knowledge by scaffolds regards correct erection and SWL, wind speeds, scaffold ties incorrect, etc. Incorrect or no supervision at the worksite Not up to standard. Do not conform to BS Not inspected leading to failure. Injury to persons through incorrect mechanical or manual handling. Musculoskeletal damage, dropped objects, pinch points. Lack of competence Dropped objects 	4	2	8	 Conduct 'TBT' before the start of the activity. Prepare, develop and conduct toolbox talk based on JSA and specific job site requirements Obtain PTW, review, and communicate to all involved in the task. Participate and communicate with area management to ensure no adverse interface impact or hazard. Install correct warning signage and barricading for the observation by other parties Follow recommended maximum stacking guidelines. All scaffold materials shall be stacked and segregated safely and by type. Stacking and storage guidelines shall be prominently signposted in easy visual display. Shelving/racking shall be stable and appropriate; pallets when used shall be in good condition without defect. Pipes and/or tubular components shall be adequately chocked. All scaffold personnel shall have attended and passed project 'Manual Handling' training programs. Weight and packaging shall be checked and evaluated before handling. PINCH POINTS shall be identified and hands shall not be placed in the 'Line of Fire' between unsecured items or under loads being raised or landed. Eye protection shall be worn for dust particle injury. 	2	1	2	Lifting engineer, HSE Officer, Lifting Supervisors
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Lack of warning to	Eyewash facilities shall be provided and First
other trades and	Aid equipment and personnel shall be
notification of men	available
working overhead.	Scaffold personnel shall be trained in the use
People entering the	of fire extinguishers and/or other firefighting
danger zone	equipment (blankets, etc.).
Dropped tools, work	Emergency numbers and fire hazard signage
carried out	shall be prominently displayed.
incorrectly	The work areas shall be maintained with good
Lack of experience.	housekeeping.
The incorrect	Access ways and Scaffolds are clear and free
sequence of work	of obstruction.
Incorrect Couplers	Access Scaffolds shall be confirmed by all
used.	personnel as green tagged before use.
Lack of training in	All Scaffold personnel above 1.8 meters shall
manual handling	comply with the 100% tie-off requirement and
techniques.	shall wear an approved harness.
Incorrect Couplers	Storage areas shall be marked.
used.	Housekeeping within lifting and movement
Lack of training in	zones shall be in good order.
manual handling	All personnel shall attend and pass the project
techniques.	'Work at Height' and 'harness' training.
Falls through access	Determine at PTW and Toolbox talk stage
openings placed	what type of scaffold is required (BASIC,
centrally without	ADVANCED, SUPPORT, DESIGN required)
handrails	A supervisor or foreman is present at the work
Incorrect erection	area to oversee the worksite.
procedure	Meet all BS/EN requirements.
Does not meet SWL	Are inspected before delivery to site.
or there is a potential	All lifting equipment is inspected regularly as
for the scaffold to fall	per site procedure.
over if not tied.	

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Potential falls of			 Manual handling techniques, inspected 		
end-users and			cranes, forklifts, ancillary equipment, etc.		
scaffolders.			 Materials to be stored in a safe manner 		
The likelihood			 Do not stack too high to prevent collapse. 		
scaffold will fall over			 Third-party training. 		
at the early stages if			 Ensure all have experienced, and theoretical 		
the height to base			and practical training before commencing the		
ratio is exceeded or if			scaffold work.		
ties are removed			 Ensure barricades, multi-language warning 		
The scaffold has a			signs, warning tape, and flagman (where		
high potential to fall			applicable) are in place before the work		
over Scaffold falling			commences		
over causes serious			 Ensure Gin Wheel areas are barricaded. 		
injury or asset			 Place correct warning signage 'men working 		
damage			overhead'.		
No design.			 Adequate Gin Wheel and Lifting bag signage 		
No competent			are displayed.		
person.			 A flagman was placed preventing entry to 		
Lack of supervision			high-risk areas.		
No experience.			 PPE hall is worn at all times. 		
 Use of two systems. 			 Tools shall be of the correct type and secured 		
Use of incompatible			with lanyards at height.		
material.			 Competent scaffolders with knowledge of 		
The supporting			basic scaffolding.		
structure is			 Ensure the base is adequate to support the 		
inadequate.			scaffold.		
Use of inferior			 Joints in standards to be diagonally opposed 		
materials.			with no more than 2 joints per bay.		
Not fit for purpose.			• Ensure correct sequence of erection and that		
• Incorrect couplers			all components meet the BS criteria		
used.			 Follow the PRL procedure on scaffolds. 		

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Lack of tra	aining in		• Ensure correct ladder access is placed with		
manual te	echniques.		ladders at a 75-degree angle or 1 in 4		
• Incorrect	erection		 Ensure ties are placed and are not removed 		
procedure	e.		throughout the scaffold's 'life'.		
The likelih	nood that		 Any adaptions (removal of ties) should be 		
the scaffo	ıld will fall		undertaken by advanced scaffolders or under		
over at an	n early		the direct supervision of the foreman		
stage.	,		 Competent scaffolders, Third Party Certified, 		
Not fit for	purpose.		with knowledge and experience of erecting		
• Incorrect			scaffold towers (mobile and static)		
used.			Remove the SCAFFTAG, and bring people off		
• Lack of tra	aining in		and away from the scaffold.		
manual ha	_		Full design drawings and calculations are		
technique	<u> </u>		available		
• Joints in t	I		Competent scaffolders with knowledge of		
bay.			advanced scaffolding.		
			• Ensure the existing structure is adequate to		
			support the suspended scaffold.		
			• Follow the TG20:2008 and JGC procedure on		
			scaffolds.		
			Ensure correct fall arrest equipment is used		
			for the particular job e.g., safety harness,		
			inertia reel, and has been inspected and in		
			proper working condition.		
			Inertia reel to have a valid test certificate and		
			be correctly color-coded.		
			•		
			Follow BS EN requirement, lift to be no more than 2 m vertically.		
			than 2 m vertically.		
			Ensure ties are placed and are not removed Throughout the applicable life.		
			throughout the scaffold's life.		

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							 Any adaptions (removal of ties) should be undertaken by advanced scaffolders or under the direct supervision of the foreman. Communication between the scaffolding supervisor and the end-user supervisor to ensure the scaffold is fit for the purpose intended. Ensure the correct sequence of erection and that all components meet the BS EN criteria. Ensure sleeves are used and staggered. Joints in different bays at each level of the scaffolding to ensure a 'sound' construction method. 				
4.	Confined space entry.	 Lake of Communication Ventilation. Damage material Oxygen deficiency accumulation of toxic gases Physical hazards Improper stacking of material Unauthorized entrant 	Electrocution & injury to personnel. Death due to suffocation/lack of oxygen. Slip & trip injury,	3	3	9	 All personnel working in confined space must have confined space training. PRL confined space procedure shall be followed. Hole watcher is attentive all the time during confined space activity. Lighting provided in CSE to be 24V. Easy communication between hole watcher and supervisor is established all the time. Ensure that passage and transport rout is clear during confined space activities. Proper access/agrees should be maintained. Gas test to be done by AGT prior to entering into the confined space. A trained and qualified individual should outside the tank with the responsibility of ensuring the safety of authorized entrants (Fabricator, Fitter, Welder e.tc) through the 	3	1	3	Lifting engineer, HSE Officer, Lifting Supervisors

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	performance pre-entry briefing, checking and
	inspecting PPE, equipment and tools and
	performing regular monitoring in ensuring
	person working inside pipe remains safe for
	entry and occupation.
	A written rescue plan that has provision for
	conducting a timely rescue of individuals
	working inside the pipe (Confined Space)
	should be kept on site. Raising the alarm in
	the event of an emergency using the
	radio/mobile phones provided to them.
	Ensure effective communication systems for
	the entry are tested.
	Proper light should be provided less than 25v. All protection should be provided less than 25v. All protections are all states are united.
	All material stack proper and category wise.
	Rescue arrangement shall be made while
	working more than five meter inside large
	bore size.
	PRL SHE&S Procedure shall be followed.
	Close supervision required while working
	inside.
	Execute the work under close supervision and
	presence of hole watcher.
	Proper air supply to be provided or air mover
	will be provided.
	Proper ventilation shall be there.
	Working crew shell be trained for confined
	space working.

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5.	Emergency Procedure / Response	Poor CommunicationImproper Access/ Egress	personnel injury, falling of personnel due to slip & trip,	3	3	9	 Educate the workforce about Emergency Procedure. All safety sign board shall be displayed properly at site. In case of any Emergency all work will be stopped, shut down all running equipment & Machineries and reported to Muster Point Proper Access & Egress shall be available. All Workforces shall know the Muster Point location. PRL Emergency Procedure to be followed. Emergency # 00000000 PRL Medical #00000000 	2	2	4	Lifting engineer, HSE Officer, Lifting Supervisors
6.	Extended hour/night Works (Actual works will be the same as day work)	Inadequate lighting in and around work areas, causing shadows or poorly lit work areas that could result in unsafe acts and injuries taking place	Stress, unrest, and social life disturbances Lone working. Physical injuries	3	3	9	 Adequate lighting at work area and Access/Egress area. Emergency route to muster point to be clearly illuminated. Proper cable management Use clear safety glass for night work for good visibility. Warning Lights and sign boards. Trained Flag man for equipment movement provided with signal torch. Close supervision required while working in night shift. 	2	2	4	Lifting engineer, HSE Officer, Lifting Supervisors

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7.	House keeping	Trips and fallSharp ObjectsEquipment damage	Physical injuries, contamination with wastewater, chemicals and dust, unhygienic condition	3	3	9	 All waste generated will be contained and disposed of in certain waste skips. Do now not keep materials/device in the plant place. Use Proper Personal defensive system for dealing with waste. All substances will be removed from the web page to a secure garage region immediately after the paintings. 	2	2	4	Lifting engineer, HSE Officer, Lifting Supervisors
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