

ACTIVITY SERIAL NUMBER										NAME OF ACTIVITY: Excavation							
Risk Level = RL, Severity rating = S, Probability Rating =P Categories of Hazards : Physical/ Chemical/ Ergonomic/ Biological/ Psychosocial/ Mechanical/ Electrical																	
Sl. No	Hazard	Cate gories of Hazar ds	Risk	Consequence	Pre Risk Evaluation			Condition			Control Measures	Post Risk Evaluation			Actio n By	Residual Risk	Remark
					(S)	(P)	RL= (S×P)	L o w R i s k	M e d i u m R u s k	H i g h R i s k		(S)	(P)	RL= (S×P)			
1.	Falling into pit.	Physical	High	Serious/Fatal	5	5	25			Y	● Adopt safe execution card and permit to work system. ● Provide hard barricade with warning sign. ● Appropriate information, instruction and supervision shall be provided to workers ● Provide ladder for access and egress at ¼ to the adjacent side.	5	1	5	Site Engin eer	Medium Risk	

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2.	Collapse of earth.	Physical	Moderate	Suffocation/breathlessness buried.	4	3	12		Y		- Do not allow vehicles to operate too close to excavated areas. - Maintain at least 2m distance from the edge of cut. - Provide slope not less than 1:1 in all soils except hard rock.	2	1	2	Site Engin eer	Low Risk	
3.	Water logging /seepage	Physical	Moderate	Cause drowning situation.	3	4	12		Y		Provide suitable size dewatering pump.	1	1	1	Site Engin eer	Low Risk	

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4.	Movement of vehicle / equipment close to the edge of excavation.	Physical	High	Cave in, workers may get buried.	5	4	20			Y	● Provide hard barricade with warning sign. ● Maintain at least 2m distance from edge and use stop blocks / barricade board to prevent over run. ● Provide reverse horn in vehicles. ● Signal man to be deployed at work site.	2	2	4	Site Engin eer	Medium risk	

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5.	Fall of tools & material.	Physical	Moderate		5	3	15		Y		● Dump excavated soil at least 1m distance. ● Conduct daily pep talk for site safety awareness. ● Don't keep tools near excavated cut. ● Provide all mandatory PPEs.	5	1	5	Site Engin eer	Medium risk	
6.	Bushes & tress	Physical	Moderate		4	3	12		Y		● Clear the bushes tress before excavation. ● Use pees (gum boot) during bush cutting.	1	1	1	Site Engin eer	Low Risk	

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7.	Contact with buried electric cable, gas,/oil pipelines.	Electrical .	Moderate.	Electrocution and explosion	4	3	12		Y		Before excavation check out all underground utilities and if possible remove it.	2	1	2	Site Engin eer		Lo w Ri sk	
8.	Overhead electric power lines.	Electrical .	Moderate.	Electrocution	4	3	12		Y		Maintain safe distance by overhead power lines.	4	1	4	Site Engin eer		M e d i u m Ri sk	

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9	Unauthorised / untrained worker.	Psycholo gical	Moderate.	Cause of accident at work site.	4	3	12		Y		- Engage only authorize and trained worker for a specific work. - Don't engage workers without screening, medical checkup and safety induction.	2	1		Site Engin eer		Lo w Ri sk	

RISK MATRIX						
P R O B A B I L I T Y	Very Likely - 5	4	10	15	20	25
	Likely - 4	4	8	12	16	20
	Possible - 3	3	6	9	12	15
	Unlikely - 2	2	4	6	8	10
	Very Likely - 1	1	2	3	4	5

	1	2	3	4	5
	Negligible	Slightly	Moderate	High	Very High
	SEVERITY ⓘ				
Risk	Risk level	Condition			
1 to 6	Low Risk	May be acceptable but review task to see if risk can be reduced further.			
8 to 12	Medium Risk	Task should only be executing with appropriate management authorization after consulting with specialist personal.			
15 to 25	High Risk	Task must not proceed, until adequate action taken to minimize the risk.			