Fo	rmat No: ER 5/1	0– F2, JOB SA	FETY ANALYSI	S (JSA), IB THERMA	AL POWER STATIO	N, OPGC (2X660MW)			
PTW NO-	Department	Equipment	Location	Job description: Construction of Balance Kota Stone Flooring & Handrail Work In different Building for Unit #3&4 at ITPS					
JSA performed by:	Signature	Review & Apprd. by	Signature	Date of Issue	Date of revision			Revision No-	
	•	H,	AZARD TEXT/TY	PE (For reference to	o identify the Hazar	d type)		•	
PHYSICAL HAZARDS	PHYSICAL HAZARDS	PHYSICAL HAZARDS	ELECTRICAL HAZARDS	CHEMICAL/ GAS HAZARDS	EXCAVATION		OTHERS		
Noise	Fall from height	Force (Push/Pull)	Shock/ Electrocution	Flammable/ Explosive substances	Collapse/Sliding		Fire		
Radiation	Fall (Slip/Trip)	Caught in/on or between	Static electricity	Inhalation of toxic fumes	Underground live cable damage		Heavy Wind/Rain		
Confined space	Fall down/below	Struck by/against	Arcflash/ blast	Ingestion/Absorptio n	ERGONOMICS		Dust exposure		
Exposure to pressurised Steam/Air	Fall of Objects from height		BIOLOGICAL HAZARDS	Body/Eye Contact	Poor Posture		Oil spill		
Contact with Hot surface	Contact with moving parts	Poor illumination	Snake/Insect bite/Virus infection	Spillage	Repeatative motion		Human factor		
PPEs to be used	Safety Helmet, Sa	ety Helmet, Safety Shoe, Safety goggle, Hand glove, Nose mask, Apron, Safety belt etc.							
Tools required	Spade, Gamla, wi	re brush,cutting machin	е						
Important Note- W	/hile deciding haza	rd control measures, co	onsider hierarchy	of hazard control st	teps in order of pref	erence.			
SEQUENCE OF BASIC STEPS		SAFETY, HEALTH & ENVIROMENT HAZARDS		SAFE JOB STEPS / HAZARD CONTROL MEASURES				Are control Measures	
				Elimination/ Substitution	Engineering	Administrative	PPE	adequate to mitigate the risk	
Work start-up & obtaining PTW		 1.Unauthorized work. 2. Invalid permit . 3. Lack of competency 4. Lack or poor communication 5. Haste or shortcut 			Responsible person will conduct inspection, monitor the work activities and have to ensure safety standards and procedures are strictly adhered	Obtain a valid work permit before starting the job. Adequate Supervision for the task to be done. Be attentive on the job.	Basic PPES used	Supervisor must ensure that all work activities are carried out by competent personnel. Before start of the activity, Conduct pre-job briefing and have close monitoring for supervision.	

	SAFETY, HEALTH & ENVIROMENT					Are control Measures
SEQUENCE OF BASIC STEPS	HAZARDS	Elimination/ Substitution	Engineering	Administrative	PPE	adequate to mitigate the risk
Vehicles & Machinery Movement		Road condition to be even/follow safe route.	more than 20 KM/H. While reversing the trucks, Machinery, banks man shall be available and	the vehicle on daily basis through checklist &	glove , Nose mask.	Don't park the vehicle on passage of vehicle movement.Vehicle shall be checked prior to start the work.
Scarifying Work	1.Dust emision	Nose mask to be weared	skiled workmen to be deployed.	PTW system follows. Proper supervision.	Helmet, Safety Shoes, Cotton handgloves, goggels, Jacket, nose mask.	
Concrete Work	1.Phisical injury. 2.Slip & trip .3.concreate enter eye.4.Fall of concreate. 5.Topple vehicle	Working area access should be clear. Boomplacing area to be labelling.	Skilled mason deployed. Area corden of. Boom and miller condition phisicaly ensured. Authorized oprator deployed. Banks man provided.	PTW system follows. Conduct PJB job specific must. Proper supervision.	Basic PPE used.	
Steel Reinforcement work	 1.Fall of material. 2. Hit by rod while bending & shifting. 3.Crush between materials. 	the rod properly while	Protruding rebar shall be protected with mushrumcap. Proper checked cutting machine before activity.	PTW system follows. Conduct PJB before starting the job. Proper supervision.	Basic PPE used.	Shoulder pad must be used during Rod shifting.

	SAFETY, HEALTH & ENVIROMENT	SAFE JOB STEPS / HAZARD CONTROL MEASURES				Are control Measures
SEQUENCE OF BASIC STEPS	HAZARDS	Elimination/ Substitution	Engineering	Administrative	PPE	adequate to mitigate the risk
REBAR CUTTING WORK (Cutting m/c)	1.Wheel damage, cracks etc. 2. Electric shock, 3.Breaking of wheel. 4. Fire hazard. 5. Serious cut injury. 6. Noise	Before starting cutting make sure the area is clear of all types of combustible materials .	Cutting wheel shall be from reputed brand of specified diameter and quality. Check physical damage to the wheel before mounting.Check expiry date of cutting wheel. Ensure the connection for cutting machine through 30mA ELCB. Double insulated	Only skilled and trained worker have to perform the cutting the rebar.	Shoes, helmet, goggles, vest, face shield & Leather hand glove	Make sure guards are fitted to all moving parts. Maintain the equipment such that it reduce noise level.
Snake bite	1. Body infection 2. Death	1. Area survey 2. Housekeeping		1.Training (PJB/OJT) 2.carbolic Acid spray	All ppe,s mandatory	
HOUSE KEEPING WORK.	1. Tripping over loose objects. 2.Being hit by objects.3. Slipping on bitumen or dirty surface.4. Striking against projecting, poorly stacked items.5. Cutting,puncturing or tearing the skin of parts of the body	Clear on obstructed walk way.	Segregate the materials in designated place. Unwanted materials to be removed on regular basis.	PJB brifing on daily basis	Basic PPE used.	
Emergency Control Measures: Keep	Main Control Room- 7077743444, CHP Control Room- 8018084333, Fire- 07077225454/777, 222257, Ambulance- 07894035500/ 248/337					
Overal Job Risk Category- (High/Low) :						
JSA Review during PJB:						
Pre Job Briefing (PJB) is applicable to	-					
Pre Job Briefing (PJB) Acknowledger	nent: I undertake that the JSA is comm	unicated to me effe	ctively & understan	d the hazards & risks	1	
Name Agency's name		Signature Name A		Agency's name	Signature	