

PTW NO-	Department	Equipment	Location	Job description: Construction of Main Gate of OPGC for Unit # 3 & 4 at ITPS			
JSA performed by:	Signature	Review & Apprd. by	Signature	Date of Issue	Date of revision		Revision No-
<b>HAZARD TEXT/TYPE ( For reference to identify the Hazard type )</b>							
<b>PHYSICAL HAZARDS</b>	<b>PHYSICAL HAZARDS</b>	<b>PHYSICAL HAZARDS</b>	<b>ELECTRICAL HAZARDS</b>	<b>CHEMICAL/ GAS HAZARDS</b>	<b>EXCAVATION</b>	<b>OTHERS</b>	
Noise	Fall from height	Force (Push/Pull)	Shock/ Electrocutation	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/Absorption	ERGONOMICS	Dust exposure	
Exposure to pressurised Steam/Air	Fall of Objects from height	Extreme weather (Hot/Cold)	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	
<b>PPEs to be used</b>	Safety Helmet, Safety Shoe, Safety goggle, Hand glove, Nose mask, Apron, Safety belt etc.						
<b>Tools required</b>	Spade, Gamla, wire brush, cutting machine						
<b>Important Note-</b> While deciding hazard control measures, consider hierarchy of hazard control steps in order of preference.							
<b>SEQUENCE OF BASIC STEPS</b>	<b>SAFETY, HEALTH &amp; ENVIROMENT HAZARDS</b>	<b>SAFE JOB STEPS / HAZARD CONTROL MEASURES</b>				Are control Measures adequate to mitigate the risk	
		<b>Elimination/ Substitution</b>	<b>Engineering</b>	<b>Administrative</b>	<b>PPE</b>		
Work start-up & obtaining PTW	1.Unauthorized work. 2. Invalid permit . 3. Lack of competency 4. Lack or poor communication 5. Haste or shortcut	Access should be free without obstacle.	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.	

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Excavation by Excavator	1-Excavator can hit with any person or Existing structure.		1-Sufficent lights shall be provided for dark hours. 2-battern light shall be provided for dark hours.	1-Compitent Operator shall be deployed. 2-Compitent dedicated spotter/flagmen shall be deployed with flags & Whistle. 4-Dedicated supervisor shall be deployed. 4-PTW shall be taken. 5-PJB shall be conducted.		
	Damage of underground utilities like pipeline ,electric cable		1. Use of underground utilities detector	1-Excavation permits & Clearance shall be taken before start of excavation and folowed. 2-Excavation shall be carried out manually. 3-Excavation shall be carriedout with close supervison and in the presence of opgc representatives.	safety Shoes, Hand Gloves, Helmet ,Goggles, Dust mask, Hearing protection, safet belt & fluorescent jacket must be worn	Yes
	Poor illumination	1. Proper /sufficient illumination provided (Minimum 45 lux) 3. Use of lux meter to ensure light intensity		1.Follow PTW System 2.Training should be given to all workmen.	safety Shoes, Hand Gloves, Helmet ,Goggles, Dust mask, Hearing protection, safet belt & fluorescent jacket must be worn	Yes
	Fall or slip of worker in excavated pit/muddy area		Area Barricading	1. Warning signag. 2. Daily PJB. 3.Illumination at dark hours	safety Shoes, Hand Gloves, Helmet ,Goggles, Dust mask, Hearing protection, safet belt & fluorescent jacket must be worn	Yes

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	Water accumulation in excavated pits	1-Bond shall be made either side of existing drain. 2-De-watering shall be done.	Area Barricading,	1- Dewatering pump inspection of dewatering pump, powercable before in use. 2- Use safe access. 3-prior Inspection shall be done of De-watering pumps and ensure their sound condition.	safety Shoes, Hand Gloves, Helmet ,Goggles, Dust mask, Hearing protection, safet belt & fluoresent jacket must be worn	Yes
	Electrical shock due to damage of underground power cable.	1-Excavation shall be carried out by manualy.	1-Cable detector shall be use for checking of underround power cable.	1. Training (PJB/OJT) 2. Physical inspectoin shall be done. 3-Excavation permit shall be taken and followed. 4. Previous lay out drawing to be followed. 5-2-LOTO shall be taken if requited. 6.Dedicated supervisor shall be depoyed for close monitoring.	safety Shoes, Hand Gloves, Helmet ,Goggles, Dust mask, Hearing protection, safet belt & fluoresent jacket must be worn	Yes
	Injury to person		Area Barricading	1.Training (PJB/OJT) 2. Spotter to be deployed with flag 3. Daily inspection of vehical 4. Competent operator	safety Shoes, Hand Gloves, Helmet ,Goggles, Dust mask, Hearing protection, safet belt & fluoresent jacket must be worn	Yes
Vehicles & Machinery Movement	1-Bodily injury to the road users/drivers/ helper. 2-Material/ equipment damage.	Road condition to be even/follow safe route.	Speed limit should not be more than 20 KM/H. While reversing the trucks, Machinery, banks man shall be available and away for prier guiding the vehicles.	Skilled & trained driver with Valid professional DL to be deployed.Vehicle shall be checked prior to start the work. Inspect the vehicle on daily basis through checklist & maintain the record. Vehicles should be in good working condition with back up alarms functioning.	Shoes, helmet, goggles, vest, hand 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.	

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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.	
<b>Emergency Control Measures: Keep ready Foam Type Fire Extinguishers</b>		<b>Main Control Room- 7077743444, CHP Control Room- 8018084333, Fire- 07077225454/777, 222257, Ambulance- 07894035500/ 248/337</b>				
<b>Overall Job Risk Category- (High/Low) :</b>						
<b>JSA Review during PJB:</b>						
<b>Pre Job Briefing (PJB) is applicable to all persons involved with the task.</b>						
<b>Pre Job Briefing (PJB) Acknowledgement: I undertake that the JSA is communicated to me effectively &amp; understand the hazards &amp; risks</b>						
Name	Agency's name	Signature	Name	Agency's name	Signature	