

Format No: ER 5/10- F2, JOB SAFETY ANALYSIS (JSA), IB THERMAL POWER STATION, OPGC							
Serial No.	Department	Equipment	Location	Job description: AMC for Operation and Maintenance of STP, Water Supply and PH Maintenance in ITPS Colony & New Infrastructure Area for the Year 2023-2025			
	Facility Management		ITPS Colony				
JSA performed by:	Signature	Reviewed & Approved by	Signature	Date of Issue	Date of revision		Revision No-
HAZARD TEXT/TYPE ( For reference to identify the Hazard 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/ 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	
PPEs to be used	Safety Shoes, Safety Helmet, Hand Gloves, Dust Mask, safety goggles, gum boots , ear plugs, welding full face mask, boiler suit, Safety reflective jacket.						
Tools required	Monkey plier, pipe wrench, hammer, screw driver, general plier, Allen key set, drilling machine, sly wrench, haxsaw, D spanner set, die rachet set						
Important Note- While deciding hazard control measures, consider hierarchy of hazard control steps in order of preference.							
SEQUENCE OF BASIC STEPS	SAFETY, HEALTH & ENVIROMENT HAZARDS	SAFE JOB STEPS / HAZARD CONTROL MEASURES				Are control Measures adequate to mitigate the risk (Yes/No)	
		Elimination/ Substitution	Engineering	Administrative	PPE		
Cleaning of Equipments, rooms and tanks	Electrical Shock, Contact with moving parts		LOTO and PTW system to be ensured		Rubber hand gloves, safety shoes helmet	Yes	
Cleaning of Sludge from STP Primary settling tanks.	Sewage sludge water will come in contact with the body.			Wash the body with fresh water and soap.	Use of rubber hand gloves, gum boots	Yes	
Dosing of Chemicals	Chemical Hazards		Follow the MSDS instructions available on the site.		Use of rubber hand gloves, gum boots, safety goggles	Yes	
Disposal of sludge / waste.	Sewage sludge will come in contact with the body.			Wash the body with fresh water and soap.	Use of rubber hand gloves, gum boots	Yes	
Operation of Valves and Mechanical Controls	Electrical Shock, Contact with moving parts		Follow the Standard operating procedure as mentioned in the manual			Yes	
Cleaning of the working area	Foreign body and dust may strike different parts of the body, snake and reptiles may bite.				Safety ankle shoes must ne worn if grass height is more than 6 feet. Usage of safety goggles is to be ensured	Yes	

SEQUENCE OF BASIC STEPS	SAFETY, HEALTH & ENVIROMENT HAZARDS	SAFE JOB STEPS / HAZARD CONTROL MEASURES				Are control Measures adequate to mitigate the risk (Yes/No)											
		Elimination/ Substitution	Engineering	Administrative	PPE												
Fixing of Glass Shelf	Falling of glass shelf from the hand and causing injury to body			Take care so as to avoid slippery surface. Do not work on wet surface or area.	Wear rubber hand gloves to avoid slippage.	Yes											
Drilling of holes on walls	Fall of foreign material into the eyes.				Wear Safety Goggles	Yes											
	Electocution		Take power supply from the designated source only.	If power supply source is taken from elsewhere, make the connection from designated electrician only.	Wear rubber hand gloves to avoid slippage.	Yes											
Working on terrace for repairing pipeline	Fall from height			Never work beyond the parapet area. Never sit on the parapet wall.		Yes											
Cutting of threads of G.I pipeline	Cut injury to hands				Wear cotton hand gloves while doing this job.	Yes											
Working at Height	Risk of falling from height		Take permit before work		Use of proper PPE, full body harness, fall protection measure, proper scaffolding, proper ladder to be used as per standard.												
Plumbing work	Injury to hand, falling of tools and tackles				Use of proper PPES												
Cleaning of the working area.	Foreign materials and dust may strike the different parts of the body, snakes and reptiles may bite.				Safety Goggles, hand gloves, dust masks, and other PPEs must be worn while executing the job. (If grass height more than 6 feet then full ankle gun boots to be worn)												
Final Inspection & House Keeping	Any left out material kept at site				Material should be removed with proper PPEs so that no injury occurs to others.												
<b>Emergency Safety Measures ( Rescue / Fire Brigade etc):</b>		<b>Emergency Contacts-Main Control Room- 222, 233,244, Fire- 777, 222257, Ambulance- 248/337, Hospital-666</b>															
<b>Overall Job Risk Category-</b>	<b>High</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</b>																	
<b>Name</b>	<b>Agency's name</b>	<b>Signature</b>															