

Format No: ER 5/10- F2, JOB SAFETY ANALYSIS (JSA), IB THERMAL POWER STATION, OPGC							
Serial No.	Department	Equipment	Location	Job description: AMC for Horticulture Maintenance in Main Plant Area at ITPS for 2024-26			
	Main Plant Civil		Main Plant				
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/ Electrocuton	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/Aborption	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 Shoes, Safety Helmet, Hand Gloves, Dust Mask, safety goggles, gum boots and safety reflective jacket.						
<b>Tools required</b>	Spades, shoves, pick axes, axes, lawn mower, grass/bush cutting machine.						
<b>Important Note-</b> 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		
Excavation of planting saplings, trees, planter beds.	Contact with electrical cables, water pipelines. Electrocuton	Take excavation permit before any sort of excavation		Do work in the designated garden areas only. Do not touch or attempt to disconnect any electrical cables and water pipelines on its own.	Safety shoes, safety helmet, hand gloves, dust mask, reflective jacket and safety goggles.	Yes	

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Lawn mowing / grass cutting using the electrical lawn mower machine.	Electrocution and contact with moving parts.	Do not remove any guards from the machine.	Use electrical insulated handgloves while operating the lawn mower	Take electrical connection from the designated source only. When connection is required at the other points take connection by the authorised electrician only.	Safety shoes, safety helmet, hand gloves, dust mask, reflective jacket and safety goggles.	Yes
Tree Trimming Activites.	Fall from height.	Do not trim trees untill permission for the same is accorded by authorised person.	Use manlift machine where access to the machine can be provided.	Take separate work permit and prepare separate JSA before tree trimming activites. Cordon off the whole area and deploy persons for diverting the man and machines away from the site. Ensure that the area is clear and may not cause damage to the exisiting structures or building.	Safety shoes, safety helmet, hand gloves, dust mask, reflective jacket and safety goggles, full body harness.	Yes
Application of pesticides, chemicals and other fertilisers.	Contact of chemicals with skin, body ,eyes etc.			Wash body and hands thoroughly with water after using or woking with chemicals. If irritation persists thrn seek medical help.	Safety shoes, safety helmet, hand gloves, dust mask, reflective jacket and safety goggles, full body harness.	Yes
Transportation of debris, wild grass and sludge, soil manure etc	Snake bite, fall from the tractor trolley.			Search the area thoroughly prior to loading and unloading for any snakes, reptiles etc. No persons should sit on the trolley of the tractor or overload in the trolley. The driver should posses a valid driving license and be experienced.	Safety shoes, safety helmet, hand gloves, dust mask, reflective jacket and safety goggles, full body harness.	Yes
Cutting of grass using petrol operated grass/ bush cutter machine.	Snake bite, hit with flying object.		Do not remove any guards from the machine.	Search the area thoroughly for any hidden snakes and reptiles. Do not smoke or do any hot work near the grass cutting machine. Inspect the area thoroughly for any loose materials such as glass pieces, small stones and debris and clear them prior to operating the machine.	Use of gum boots, safety goggles and full face helmet.	

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Spreading of soil, manure, fertilisers.	Fall of foreign materials into eyes and contact with chemicals, skin irritation.			Use proper hand gloves and usage of goggles.	Hand gloves	
Emergency Safety Measures ( Rescue / Fire Brigade etc):		Emergency Contacts-Main Control Room- 222, 233,244, Fire- 777, 222257, Ambulance- 248/337, Hospital-666				
Overall Job Risk Category- (High/Medium/Low) :	HIGH					
JSA Review during PJB:						
Pre Job Briefing (PJB) is applicable to all persons involved with the task.						
Pre Job Briefing (PJB) Acknowledgement: I undertake that the JSA is communicated to me effectively						
Name	Agency's name	Signature				

