		Format No: ER 5/10- F	2, JOB S	AFETY ANALYSIS (JSA)	, IB THERMAL POWER S	TATION, OPGC		
Serial No.	Department	Equipment	Location	Job description:				
	Facility Management	ITPS colony	ITPS colony	Civil maintenance work in CMT colony.				
JSA performed by:	Signature	Reviewed & Approved by	Signature	Date of Issue	Dat	e of revision		Revision No-
		1			ence to identify the Haz			
PHYSICAL HAZARDS	PHYSICAL HAZARDS	PHYSICAL HAZARDS	ELECTRICAL HAZARDS	CHEMICAL/ GAS HAZARDS	EX	CAVATION	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		Underground live cable	e 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 C		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, hand glo	oves ,safety helmet, Nose n		ff, Safety goggles, refl	ective vest, etc.			
Tools required	Hoe, pick axe, spade, o	digging bar, measuring box	, head pan, maso	nry trowel, circular sav	w, float, ladder, line and	pins, measuring box, measuring	tape, plumb bob, sand screen, s	pade, spirit level, tile
Important Note- While	deciding hazard control	measures, consider hierar	chy of hazard con	trol steps in order of p	reference.			
SEQUENCE OF BASIC ST	EPS	SAFETY, HEALTH & E	NVIROMENT		SAFE JOB STEP	S / HAZARD CONTROL MEASUR	ES	Are control Measures
		HAZARD	S	Elimination/ Substitution	Engineering	Administrative	PPE	adequate to mitigate the risk (Yes/No)
Concrete work for plinth, drains , flooring and PCC for foudation.		Body injury (Slip/trip)		Justiculon		Have a 360 degree vision and be alert about the area of work. Use proper and healthy	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff, gum	Yes
		Body eye conact/ hand in	jury			Engage inline experienced work person, Use healthy and tested Tools. Use rubber hand gloves to avoid direct contact	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff, gum boots.	Yes
		Poor Posture				Take Rest in between the job. Do not overstrech your body. Keep in mind about your body limits.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff, gum boots.	Yes
Cement plaster/ punning (finishing work) for plinth drain and flooring		Body injury (Slip/trip)				Have a 360 degree vision and be alert about the area of work. Use proper and healthy tools.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes

SEQUENCE OF BASIC STEPS	SAFETY, HEALTH & ENVIROMENT HAZARDS Body eye conact/ hand injury		Are control Measures			
		Elimination/ Substitution	Engineering	Administrative	PPE	adequate to mitigate the risk (Yes/No)
				Engage inline experienced work person, Use healthy and tested Tools. Use rubber hand	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Poor Posture			gloves to avoid direct contact Take Rest in between the job. Do not overstrech your body. Keep in mind about your body limits.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
Dismantling of cement concrete and flooring.	Body injury (Slip/trip)			Have a 360 degree vision and be alert about the area of work. Use proper and healthy tools.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Body eye conact/ hand injury			Engage inline experienced work person, Use healthy and tested Tools.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Poor Posture			Take Rest in between the job. Do not overstrech your body. Keep in mind about your body limits.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Falling of Object from height			Proper supervision to be done, restrict unauthorized entry to the workplace.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
Fixing of floor tiles , wall tiles.	Electrocution			Ensure the insulation of tile cutting machine and its cable. Ensure that the power source is from a 30mA sensitive RCCB	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Body injury (Slip/trip)			Have a 360 degree vision and be alert about the area of work. Use proper and healthy tools.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Body eye conact/ hand injury			Engage inline experienced work person, Use healthy and tested Tools. Use safety goggles to avoid any foreign material to go inside your eye.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes

SEQUENCE OF BASIC STEPS	SAFETY, HEALTH & ENVIROMENT		Are control Measures			
	HAZARDS	Elimination/ Substitution	Engineering	Administrative	PPE	adequate to mitigate the risk (Yes/No)
	Dust/Ash/fumes			Keep dust/fume mask with you. Use wherever needed.Check, whether the filters of the mask are clean before using. Use clean masks.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Falling of Object from height			Proper supervision to be done, restrict unauthorized entry to the workplace.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Noise from cutting machine			Use good quality ear plugs/muffs. Take rest in between the job. Do not expose yourself to continuous noise.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Poor Posture			Take Rest in between the job. Do not overstrech your body. Keep in mind about your body limits.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
Making and fixing of aluminium doors .	Electrocution			Ensure the insulation of wood cutting machine and its cable. Ensure that the power source is from a 30mA sensitive	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Body injury (Slip/trip)			Have a 360 degree vision and be alert about the area of work. Use proper and healthy tools.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Body eye conact/ hand injury			Engage inline experienced work person, Use healthy and tested Tools.Use safety goggles to avoid any foreign	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Falling of Object from height			Proper supervision to be done, restrict unauthorized entry to the workplace, ensuring height work permit.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Falling of carpenter from platform			Use certified platforms, ensure that top rail and midrails are healthy and strong.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Noise from cutting machine			Use good quality ear plugs/muffs. Take rest in between the job. Do not expose yourself to continuous	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes

SEQUENCE OF BASIC STEPS	SAFETY, HEALTH & ENVIROMENT		Are control Measures			
	HAZARDS	Elimination/ Substitution	Engineering	Administrative	PPE	adequate to mitigate the risk (Yes/No)
	Poor Posture			Take Rest in between the job.	Safety shoes, hand gloves	Yes
				Do not overstrech your body.	,safety helmet, safety goggles,	
				Keep in mind about your body	nose mask, ear plug/muff	
				limits.		
Fixing of false ceiling / perforated asbestos	Electrocution			Ensure the insulation of	Safety shoes, hand gloves	Yes
ceiling boards.				cutting machine and its cable.	,safety helmet, safety goggles,	
				Ensure that the power source	nose mask, ear plug/muff	
				is from a 30mA sensitive		
	Body injury (Slip/trip)			Have a 360 degree vision and	Safety shoes, hand gloves	Yes
				be alert about the area of	,safety helmet, safety goggles,	
				work. Use proper and healthy	nose mask, ear plug/muff	
				tools.		
	Body eye conact/ hand injury			Engage inline experienced	Safety shoes, hand gloves	Yes
				work person, Use healthy and	,safety helmet, safety goggles,	
				tested Tools.Use safety	nose mask, ear plug/muff	
				goggles to avoid any foreign		
	Falling of carpenter from platform			Use certified platforms,	Safety shoes, hand gloves	Yes
				ensure that top rail and	,safety helmet, safety goggles,	
				midrails are healthy and	nose mask, ear plug/muff	
				strong.		
	Noise from cutting machine			Use good quality ear	Safety shoes, hand gloves	Yes
				plugs/muffs. Take rest in	,safety helmet, safety goggles,	
				between the job. Do not	nose mask, ear plug/muff	
				expose vourself to continuous		
	Poor Posture			Take Rest in between the job.	Safety shoes, hand gloves	Yes
				Do not overstrech your body.	,safety helmet, safety goggles,	
				Keep in mind about your body	nose mask, ear plug/muff	
				limits.		
Priming & painting of wall and ceiling.	Body injury (Slip/trip)			Have a 360 degree vision and	Safety shoes, hand gloves	Yes
				be alert about the area of	,safety helmet, safety goggles,	
				work. Use proper and healthy	nose mask, ear plug/muff	
				tools.		
	Body eye conact/ hand injury			Engage inline experienced	Safety shoes, hand gloves	Yes
				work person, Use healthy and	,safety helmet, safety goggles,	
				tested Tools.Use safety	nose mask, ear plug/muff	
				goggles to avoid any foreign		
	Fall of ladder/platform		Ensure that the	Ensure healthiness of ladder	Safety shoes, hand gloves	Yes
			ladder/platform should	and its rungs before work. The	,safety helmet, safety goggles,	
			be placed on a flat and	ladder/platform should be	nose mask, ear plug/muff	
			rigid surface.	placed on a flat and rigid		
	Poor Posture			Take Rest in between the job.	Safety shoes, hand gloves	Yes
				Do not overstrech your body.	,safety helmet, safety goggles,	
				Keep in mind about your body	nose mask, ear plug/muff	
				limits.		

SEQUENCE OF BASIC STEPS	SAFETY, HEALTH & ENVIROMENT		Are control Measures			
	HAZARDS	Elimination/ Substitution	Engineering	Administrative	PPE	adequate to mitigate the risk (Yes/No)
	Falling of workmen from height		be placed on a flat and	Use A-type FRP Ladder and one person must be holding the ladder at the time of	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
			rigid surface.	climbing/decending. Have a Ensure that the rungs are not damaged. Have a clear vision of the area before climbing, to avoid hitting hanging objects.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
Errection of Pipe scaffolding and aluiminium scaffolding for working at height.	Falling of workmen from height			Use A-type FRP Ladder and one person must be holding the ladder at the time of climbing/decending. Have a firm grip on the ladder/platform and maintain a 3-point contact while climbing/decending on the ladder/platform. In case of scaffolding, ensure height work permit.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Body injury (Slip/trip)			Have a 360 degree vision and be alert about the area of work. Use proper and healthy tools.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Fall of ladder/platform		Ensure that the ladder/platform should be placed on a flat and rigid surface.	Ensure healthiness of ladder and its rungs before work. The ladder/platform should be placed on a flat and rigid surface.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Poor Posture			Take Rest in between the job. Do not overstrech your body. Keep in mind about your body limits.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
Removing of construction debris.	Body injury (Slip/trip)			Have a 360 degree vision and be alert about the area of work. Use proper and healthy tools.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes

SEQUENCE OF BASIC STEPS	SAFETY, HEALTH & ENVIROMENT		Are control Measures			
	HAZARDS	Elimination/ Substitution	Engineering	Administrative	PPE	adequate to mitigate the risk (Yes/No)
	Body eye conact/ hand injury			Engage inline experienced work person, Use healthy and tested Tools. Use safety goggles to avoid any foreign material to go inside your eye.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Dust/Ash/fumes			Keep dust/fume mask with you. Use wherever needed.Check, whether the filters of the mask are clean before using. Use clean masks.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Falling of Object from height			Proper supervision to be done, restrict unauthorized entry to the workplace.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Poor Posture			Take Rest in between the job. Do not overstrech your body. Keep in mind about your body limits.	,safety helmet, safety goggles,	Yes
ractor loading and unloading for shifting of naterials at site.	Body injury (Slip/trip)			Have a 360 degree vision and be alert about the area of work. Use proper and healthy tools.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Body eye conact/ hand injury			Engage inline experienced work person, Use healthy and tested Tools.Use safety goggles to avoid any foreign material to go inside your eye.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Dust/Ash/fumes			Keep dust/fume mask with you. Use wherever needed.Check, whether the filters of the mask are clean before using. Use clean masks.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes
	Falling of Object from height			Proper supervision to be done, restrict unauthorized entry to the workplace.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes

SEQUENCE OF BASIC STEPS	·							
	HAZARDS	Elimination/ Substitution	Engineering	Administrative	PPE	adequate to mitigate the risk (Yes/No)		
	Poor Posture			Take Rest in between the job. Do not overstrech your body. Keep in mind about your body limits.	Safety shoes, hand gloves ,safety helmet, safety goggles, nose mask, ear plug/muff	Yes		
Emergency Safety Measures (Rescue/Fire Briga	de etc):	Emergency Contacts-Main Control Room- 222, 233,244, Fire- 777, 222257, Ambulance- 248/337, Hospital-666						
Overal Job Risk Category- (High/Medium/Low)	HIGH							
JSA Review during PJB:								
Pre Job Briefing (PJB) is applicable to all person	s involved with the task.							
Pre Job Briefing (PJB) Acknowledgement: I unde	ertake that the JSA is communicated to me	effectively						
Name	Agency's name			Signature				