

**ANNEXURE # 1**

<b>JOB SAFETY ANALYSIS (JSA)</b>					
FORMAT NO: ER 5/10- F2.					
Department Ash pond	Equipment Ash pond	Job description: Excavation and Transportation of Ash From Ash Pond		JSA Serial No	
Company	Orissa Power Generation Corporation				
Location	Ash Pond.IB-Thermal Power Station	Period of work		Reviewed By: G.P. Mishra Senior Engineer (Civil)	Signature
Analysis By	Name : A.K.Panda	Designation: Dy. Manager	Signature :	Recommened By(S.O):	Signature
Name of associated persons	OPGC:Mr.A.K.Panda Contractor:Mr.....			Approved By(Factory Manager):	Signature
PPE Required	Safety shoes, Helmet, dust mask, safety glass			Revision By :	Signature
Tools Required	Sprade, crowbar, hosepipe etc.			Date of Rev :	
SEQUENCE OF BASIC STEPS		IDENTIFIED SAFETY, HEALTH & ENVIROMENT HAZARDS		RECOMMENDED SAFE JOB STEPS AND CONTROL PROCEDURE	
1. Excavation of ash/earth & loading into vehicle.		1.Blowing of ash. Inhalation of ash.		1. Sprinkling of water & use of dust mask by workmen.	
(Excavation of ash shall be done from Ash pond and shifted to Road construction site by contractor.)		2.Air pollution due to fugitive emission. 3.Tilting of excavator. Injury to workmen.		2. Excavation to be done carefully. Rigidity of area soil near excavator post to be ensured.	
2. Transportation of ash to site by Vehicles and unloading the same. 3. Reversing the Vehicle on the narrowdyke.		1. Hitting with the Vehicles/ persons during loading.		1. Loading to be done carefully. No person will be allowed to stay within the swing area of boom of excavator. Vehicles will be fixed with back gear alarms.	
		2.Tilting of vehicle as the road is narrow at places.		2. Adequate Supervision to be made.	
		3.Road accident		3.All vehicles will have valid documents like R.C.Book, Insurance, Fitness certificate etc.	
		4.Blowing of dust due to movement of vehicle.		4.The driver will have valid driving licence and shall not drive in alcoholic condition.	
		5.Blockage of road.			
				6.The driver must be accompanied with an assistant/helper.	
				7.Sprinkling of water over the road is to be ensured.	
				8.Vehicle should not to be parked on the road.	
				9.The braking system should be perfect.	

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( P/2 )

SEQUENCE OF BASIC STEPS	IDENTIFIED SAFETY, HEALTH & ENVIROMENT HAZARDS	RECOMMENDED SAFE JOB STEPS AND CONTROL PROCEDURE
		10. Tyre in good condition. 11. While parking the vehicle for loading/unloading, stoppers should be provided on both front & rear wheel 12. Safety triangle is to be fitted on the front side of vehicle for distinct visibility. 13. The dala of the vehicle should be in good conditon and there should not be any holes/ cracks/looseness in the body of the dala through which ash will come out & fall on the road. 14. The ash should be covered with tarpoline/polythene while transporting. 15. The vehiles should move on specific route as approved by Engg.-in-charge 16. Drivers eye test to be carried out.
4. Maintenance of vehicles.	1. Oil spillage/ leakage.	1. Defect is to be attended as early as possible. 2. Spillage of oil is to be contained & cleaned.
5. Review the job while execution	1. Identify while working	1. Take appropriate action.

Emergency Safety measure for the job if any: First-Aid box should be kept at site. Emergency telephone No. Fire - 777,222257 and Hospital 600,222243 should be intimated to the workmen. This should be discussed with all. A responsible person should be present throughout the working hours for supervision and carrying out the instruction of Engineer-in-charge at any instant of time. No workmen will be allowed in alcholic condition or without safety PPEs in the working area. Consider hazard during summer drinking water, ORS powder, Rest shed etc. should be provided at site.