



STANDARD OPERATING PROCEDURE
FORM NO.HSE/CORP/4

ACTIVITY	Dozing Operation			SITE	SMC	DEPARTMENT	Mining
SOP NO.	IMFA/SOP/SMC/MINING/11	REVISION	00	EFF DATE:	19.6.14	NO. OF PAGES	Page 1

Step No.	Activity (WHAT)	Associated Requirements/ Hazards/ Impact	Process / tools / PPEs (HOW)	Responsibility (WHO)	Remarks / Reference
1	Pre-start checking	OH&S –			
		i)Fall from ladder	i)Check ladders, steps, hand holds for loose bolts, break, cracks or missing parts etc.	Dozer Operator	DOCNO. HIRA/MINING/11
		ii)Fall from machine	ii)During climbing keep both hands free and select firm footing.	Dozer Operator	
		iii)Clothing caught by control levers/other projections	iii)Do not wear loose clothing.	Dozer Operator	
		iv)Slip	iv)Check engine compartment for dirt, debris, oil rags and tools etc. Always keep steps and boots free of mud, grease and oil.	Dozer Operator	
		v)Fall from machine	v)Ensure the status of roll over protective structure.	Dozer Operator/Mechanic	
		vi)Fall from machine	vi)Make sure that seat belts are provided and in good working condition.	Dozer Operator	
vii)Poor visibility	vii)Clean windows and mirrors and adjust mirrors if necessary.	Dozer Operator			
		Environment -Nil			
		Quality –			
	i)Checking of the equipment & safety fittings	i)Check the following before starting the machine: a) Surroundings of dozer b) Fire extinguisher c)Hydraulic oil level d)Transmission oil level (should be between	Dozer Operator	DOC.NO. WI/OPRN/11	



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		<p>ii)The persons who is duly authorised can operate dozer.</p>	<p>high & low) e)Engine oil (should be between high & low) f) Water in the radiator . g)Diesel in the diesel tank h)Loose & damaged parts i)Condition of blade and cutting edge.</p> <p>ii)Do not allow any other person to ride or operate the dozer.</p> <p>iii)Check the fittings of AFDS system</p>	Shift Incharge/ Dozer Operator	
2	Starting of dozer	<p>OH&S – i)Striking the person</p>	<p>i)Check the controls and be sure that they are in neutral and blade is lowered to ground. Sound horn before starting or moving.</p>	Dozer Operator	DOCNO. HIRA/MINING/11
		<p>Environment – i)Contamination of soil due to oil leakage or smoke ii)Vehicular emission</p>	<p>i)Check for no oil leakages ii)Check for no black or white smoke.</p>	Dozer Operator/ Mechanic	Aspect No.16 Aspect No.12
		<p>Quality – i)Check after starting of dozer ii)Run the engine at low idle iii).Check brake,steering and transmission</p>	<p>i)Check every warning devices,lights, indicators and other safety features incorporated in the machine. ii)Run engine at low idle until it reaches normal operating temperature and check gauges and warning lights again for normal readings. iii)Check brakes and steering after moving a short distance and also check transmission operation. If any defect is found switch off the machine and inform the supervisor.</p>	Dozer Operator Dozer Operator Dozer Operator	DOC.NO. WI/OPRN/11



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3	Tram dozer to work area	OH&S- i)Striking people/ toppling of the equipment	i)Do not reverse the dozer unless you have a clear view of the area behind it.	Dozer Operator	Dozer Operator Dozer Operator	DOCNO. HIRA/MINING/11	
		ii)Run over the edge	ii)Do not drive the dozer unless you have clear view of minimum 30 meter ahead of it.	Dozer Operator			
		iii)Striking people	iii)Do not over speed during reversing.	Dozer Operator			
		Environment - Nil					
		Quality – i)Marching	i-a)Buckle up seat belt always during operating b)Observe travel area, adjust speed for conditions and tram with blade low 15 to 20 inches off the ground. c)Do not march the dozer more than the specified speed limit.	Dozer Operator		DOC.NO. WI/OPRN/11	
4	Examine the work area	OH&S – i)Toppling	i)Check the work area for loose rock, cracks, slopes etc.	Dozer Operator	Dozer Operator	DOCNO. HIRA/MINING/11	
		ii)Strlking by moving equipment	ii)Observe the area for other equipment. If leaving dozer, lower the blade, set brakes and shut -off the engine.	Dozer Operator			



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		Environment - Nil			
		Quality – Nil			
5	Push material	<p>OH&S –</p> <p>i) Fall from dozer</p> <p>ii) Equipment sliding/ Ground failure under weight of dozer</p> <p>iii) Skidding or sliding</p> <p>iv) Striking other equipment or persons</p> <p>v) Leaving barrier to restrict the dumper going to edge</p> <p>vi) Toppling of dozer at the edge</p>	<p>i) Keep doors closed and securely latched during operation.</p> <p>ii) Be alert for ground conditions. Steep slopes, cut out areas result in weak areas that may not support the weight of dozer.</p> <p>iii) Use extra caution, if clearing in rain or other conditions that could reduce traction-</p> <p>a) Be aware of limited sight distance in fog, dust and rain and operate at lower speeds to allow quicker stops etc.</p> <p>b) Operate in gear consistent with material. Reduce load that is being pushed and operate in direction that will provide most traction and best braking surface.</p> <p>iv) Be aware of the equipment operating in the area. Keep lights and back up horns in operating condition.</p> <p>v) Leave berms along edges of slopes for safe unloading of dumper.</p> <p>vi) Do not forward the dozers blade beyond the edge. Operate the dozer at a safe distance from the edge.</p>	<p>Dozer Operator</p> <p>Dozer Operator</p> <p>Dozer Operator</p> <p>Dozer Operator</p> <p>Dozer Operator</p> <p>Dozer Operator</p>	<p>DOCNO. HIRA/MINING/11</p>



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		Environment - Nil					
		Quality- i)Make barrier at the edge ii)Check during operation iii)Be cautious during work iv)Estimate your control	i)Make the barrier to a height of not less than the diameter of the tyre of largest dumper plying in that road. Keep sufficient material with the bade end then push the boulders or material. ii)Avoid over heating of brakes. During operation maintain dozer stability and avoid turning side ways. Frequently check gauges to be sure fluid pressures are adequate, preventing engine shut down and transmission shifting. iii)Concentrate on work at all times and do not take chances. iv)Do not over estimate the capability of dozer.	Dozer Operator/Mining Mate Dozer Operator Dozer Operator Dozer Operator		DOC.NO. WI/OPRN/11	
6	Parking	OH&S – i)Striking by other equipment	i)Park only at parking areas and always set brakes. Avoid parking on gradient or haul roads. if parking on a haul road is required pick the	Dozer Operator		DOCNO. HIRA/MINING/11	




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			safest place.		
		Environment – Nil			
		Quality – i) Stopping and switching	i) When not in use move out the machine from face, lower the blade & keep in a level ground. Keep idle for a few minutes & switch off ignition key .Then close and lock the cabin. Cutoff power from cutoff switch.	Dozer Operator	DOC.NO. WI/OPRN/11
7	Maintain Shift Log-Book	OH&S – Nil			
		Environment - Nil			
		Quality – i) Recording in log book	i) At shift end, fill the Log sheet and hand over to shift incharge so that the operator of next shift will know about the status of the machine. (Mention if there is any leakages, malfunctioning / absence of any safety devices in dozer etc.)	Dozer Operator	DOC.NO. WI/OPRN/11

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Name Designation Signature: Date:	Prepared by M.K. Samal Manager(Mines)	Approved by S. Patni Sr. GM(Mines)
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NOTE :

SIX DIRECTIONAL HAZARD IDENTIFICATION DURING JOB :

In addition to the above SOP, a 6-directional hazard identification sheet shall be used before start of the job. While executing the job at site, any hazards from six directions (**NORTH, SOUTH, EAST, WEST, TOP, BUTTOM**) to be assessed based on physical observation, common sense & experience. Controls shall be taken for any hazards thus identified.

TRAINING RECORD OF SOP :

The Training on this SOP with six directional hazards is to be imparted to concerned employee and contract workers by Shift In-Charge / Deptt. Head as applicable. The Training Record to be maintained in a register with signature of the individual employees before starting of the job.