



STANDARD OPERATING PROCEDURE

FORM NO.HSE/CORP/4

ACTIVITY	Handling of Misfire			SITE	SMC	DEPARTMENT	Mining
SOP NO.	IMFA/SOP/SMC/MINING/07	REVISION	00	EFF DATE:	19.6.14	NO. OF PAGES	Page 1 of 5

Step No.	Activity (WHAT)	Associated Requirements/ Hazards/ Impact	Process / tools / PPEs (HOW)	Responsibility (WHO)	Remarks / Reference
1	Restricting the entry to danger zone	Quality – i)Wait for misfire clearance ii)Guarding	i)Do not give “All Clear” signal until the misfire is located & re blasted. ii)The place of misfire bench will be marked by red flag and suitably guarded.	Blasting Foreman/ Blaster Blasting Foreman/ Blaster	DOC.NO. WI/OPRN/03
		OH&S – i)Endangering persons	Do not allow the entry of other persons unless the face is checked and declared clear in all respect.	Blasting Foreman/ Blaster	DOC NO. HIRA/MINING/07
		Environment - Nil	--	--	
2	Clearing of stemming material	Quality – i)Before priming stemming material will be cleared from the blast hole. .	i)Clean the stemming portion of the hole with compressed air or water under pressure.	Blasting Foreman/ Blaster	DOC.NO. WI/OPRN/03
		OH&S – i)Sparking hazard	i)No iron scrapper will be used in the clearing process.	Blasting helper/ Blaster	DOC NO. HIRA/MINING/07
		Environment - Nil	--	--	
3	Re-priming and firing	Quality – i)Re-priming and firing of holes.	i-a)After cleaning the stemming material, primer will be inserted to the explosives column. b)After re-priming stemming is to be done	Blaster Blasting helper/	DOC NO. WI/OPRN/03



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			properly. c)Re-priming of hole shall be carried out by or in the presence of blaster.	Blaster Blaster	
		OH&S- i)Skin corrosion	i)Explosives will be handled by using hand gloves.	Blasting helper/ Blaster	DOC NO. HIRA/MINING/07
		Environment - Nil	--	--	
4	Drilling of relieving hole	Quality – i)Prepare the face ii)Check explosives in the hole iii)During drilling of relieving hole adequate information about the misfire hole shall be collected.	i)Before drilling, see that all loose rock is removed from the face. ii)Examine the presence of explosives in the socket or misfire hole. iii)The relieving hole shall be drilled in the presence of a blaster, preferable the same person who fired the hole.	Blaster Blaster Blaster	DOC.NO. WI/OPRN/03
		OH&S – i)Explosion due to possible contact of drill bit to the misfire hole/socket.	i)The relieving hole shall be drilled in such a direction that at no point shall it be nearer than 200cm from the misfired hole.	Driller/Blaster/ Blasting Foreman	DOC NO. HIRA/MINING/07
		Environment - i)Dust	i)No dry drilling will be allowed in the process.	Driller	Aspect No.6



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5	Search for unexploded cartridge and detonator	Quality- i)Searching for explosives or detonator in the blasted muck.	i)After re blasting, search carefully for unexploded explosives in the material brought down by the shot.	Blasting Foreman/ Blaster	DOC.NO. WI/OPRN/03
		OH&S – i)Explosive in the muck pile may explode during excavation ii)Skin corrosion	i)Do not use equipment for searching for detonators and cartridges in the muck pile. ii)The recovered explosives will be handled by using hand gloves	Blasting Foreman/ Blaster Blasting helper/ Blaster	DOC NO. HIRA/MINING/07
		Environment - Nil			
6	Repetition of procedure	Quality – i)Repetition of procedure for clearing Misfire	i)If a misfire hole is not cleared by a relieving shot then repeat the same procedure until it is confirmed that the hole is cleared and no existence of explosives are there.	.Blasting Foreman	DOC.NO. WI/OPRN/03
		OH&S – Nil			DOC NO. HIRA/MINING/07
		Environment – Nil			
7	Reporting of misfire shot	Quality - i)Failure to clear the misfire will be reported. ii)Do not engage man and machine iii)Block the access	i)Before leaving the mine, the blaster shall give information of his failure to official who take over charge from him. ii)It is the responsibility of reliever not to engage man or machine to that spot. iii)Block the access route to the misfired face.	Blaster Shift Incharge/ Mines Foreman Shift Incharge/ Mines Foreman	DOC NO. WI/OPRN/03

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		OH&S – Nil				DOC NO. HIRA/MINING/07
		Environment - Nil				
8	Recording of misfire	Quality – i) Misfire will be recorded in bound paged book.	i) The blaster shall record the followings in a bound paged book kept for the purpose. a) every misfire, whether suspected, and whether relieved or not relieved. It shall be the responsibility of relieving official also to sign the report and left on to record in the said book.	Blaster		DOC.NO. WI/OPRN/03
		OH&S – Nil				DOC NO. HIRA/MINING/07
		Environment- Nil				

Name Designation Signature: Date:	Prepared by M.K. Samal Mines Manager	Approved by S. Patni Sr. GM(Mines)
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NOTE :**SIX DIRECTIONAL HAZARD IDENTIFICATION DURING JOB :**



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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.