

OUTCOME FROM THE LEARNING OF MOCKDRILL

S.NO	TYPE OF MOCK DRILL	OBSERVATIONS	LEARNING	OUTCOME
201	Injury to Mechanical Helper at Maintenance area due to sudden spray of hot hydraulic oil on his body while trying to stop the leakage.	1. Within a short span of time, the first aider reached a incident area.	1) Lack of work knowledge. 2) Lack of safety awareness. 3) Delay in communication	1) Unskilled person to work under supervision of skilled person. 2) Safety Awareness to be created. 3) Importance of Mock Drill explained for Quick response in case of emergency.
202	Fall of Tipper from stock yard while unloading.	1) Mock drill was conducted 14/04/2022. 2) It was assumed that, on 15th march at around 02.00 pm one of the tipper got toppled while unloading at the stock yard due to inadequate bund. 3) Immediately Mines Manager and Assistant Manager reached to the site of accident on getting information from the Mine Foremen. 4) First aid rescue team and emergency services arrived on site within no time and the causality was given emergency treatment and carried to the nearest Hospital.	There was quick and speedy response from Managers and Emergency services.	Mr.Naresh Kakumanu-Dy.Mines Manager, addressed the employees and gave an explanation about the dominant role of proper bunds and also described the need of conducting the mock drill.
203	Fire at Crusher area	<ul style="list-style-type: none"> Crusher was started around 9.45 am. Supervisor inspected all working area found good. Around 12.10 pm , crusher helper observed the fire near labour shelter area. Immediately crusher labour is informed to his supervisor. Supervisor was informed to mine foremen. At 12.20 pm Mine Forman went to crusher, observed the fire and immediately called the water tanker and quenched the fire. No any damages occurred. After incident at 12.45 pm all are assembled at Emergency assemble point and discussed about incident, Mines Manager briefly explained about safety precaution. 	<ul style="list-style-type: none"> Labour shelter area surround not cleaned. In dust bin crusher helper put the fire for cleaning the dust bin. Surround crusher area dry grass not cleaned. 	<ul style="list-style-type: none"> Unwanted vegetation has to be clean regularly. Regularly clean the dust bins. Don't put the fire in dustbins. While cleaning a dust bins (fire) make sure one person has to be supervise the fire for avoid the spreading of fire.
204	Fire Outbreak in Drill Machine due to Hose Puncture	<ul style="list-style-type: none"> Communication to Emergency response team and Occupational Health Centre was quick enough. The fire-Fighting team used the correct type of Extinguisher. Ambulance reached at site well in time. The workforce was calm while doing the rescue operation and fire extinguishing process. Workers were briefed about the importance of house keeping. 	Importance of Mock Drill understood for keeping the things ready and in place for speedy action and recovery.	Importance of Mock Drill understood for keeping the things ready and in place for speedy action and recovery.
205	Fingers Injury	13 Minutes .	1. Operator allowed to do housekeeping work with out his presence. 2.competent person allowed maintenance and other works at break hours. 3. Communication problem with operator and Helper.	1.Before starting the screening plant, operator should make observation that no persons allowed to work surrounding plant area. Operator should give long siren before starting the plant. 2.Operator should start the plant under supervision of competent person. 3. Improve communication before commencement of work.
206	Importance of HEMM Parking Brake	<ul style="list-style-type: none"> Wheel Loader was provided with all safety features including wind shield guard. The importance of knowing the technical specifications of machinery along with brake importance. SOP's are taught to the operators. There should be no supervisor present near the machine while workings. Ensuring parking brake & Service brake are in good condition before commencing machine to the work. Daily check of brake fluid before starting the machine. After the job is over, the machine must be parked in surface ground and safe location with the parking brake and wheel stopper applied to prevent injuries caused by anomalous machine movement. 	NIL	<ul style="list-style-type: none"> Commutation to the right person at right time in case of emergency. All Safety features to be provided to the machinery. Operator should Undergo VT class regularly. Technical Specification of Machinery should be taught to operators. Importance of Tool box talks before work allocation. The importance of using PPE's while working

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207	FIRE IN THE MINE OFFICE AREA	1.) The Mock drill has been conducted during shift end period staff handling fire safety and security the response time was observed good and appreciable. 2.) Everybody involved in this exercise has taken necessary precautions in view of COVID 19, maintained social distancing and used nose mask all the time.3.) Good use of latest communication system observed.4.) All employees involved in mock drill are observed following emergency plan prepared for mines. 5.) It is observed that all are aware about handling of emergency and followed as per emergency preparedness plan at mines. 6.) No panic situation at site and emergency handled properly with instructions from site controller.	NIL	Ensure that safe operating procedures are followed
208	Sudden burst of hose pipe	1. Within a short span of time, the first aider reached a incident area. 2. Deal the emergency successfully with necessary precautions.	1) Lack of work knowledge 2) Lack of safety awareness 3) Delay in communication	1) Unskilled person to work under supervision of skilled person. 2) Safety Awareness to be created. 3) Importance of Mock Drill explained for Quick response in case of emergency.
209	Fire Outbreak in Work shop area	<ul style="list-style-type: none"> • Communication to Emergency response team and Occupational Health Centre was quick enough. • Proper First aid given on time. • The fire-Fighting team used the correct type of Extinguisher. • Ambulance reached at site well in time. • The workforce was calm while doing the rescue operation and fire extinguishing process. • Workers were briefed about the importance of house keeping. 	Importance of Mock Drill understood for keeping the things ready and in place for speedy action and recovery.	Ensure that safe operating procedures are followed
210	Person hit by Tipper while reversing at loading point.	1) Mock drill was conducted 21/05/2022. 2) It was assumed that, on 21 st May around 10.00 a.m. one of the employee got hit by the tipper at the ROM loading point while reversing as both employee himself and the driver of the tipper have not noticed each other. 3) Immediately Mines Manager and Dy. Manager reached to the site of accident on getting information from the Mine Foreman about the incident. 4) First aid rescue team and emergency services arrived on site within no time and the causality was given the necessary First-Aid and lifted to the nearest Hospital.	There was a quick and speedy response from all the Emergency services.	Mr.Naresh Kakumanu-Dy.Mines Manager, addressed the employees and gave an explanation about the importance of the Blind Spot Mirrors, Proximity sensors and Audio Visual Alarms to avoid such incidents in the future. He briefly explained about the DGMS Circular: 5 of 2010 about the safety futures to be incorporated in Tippers/Trucks.
211	Fire Emergency at HEMM Maintenance Area	Location of fire extinguishers to be Known to all members of emergency team	NIL	Ensure that safe operating procedures are followed
212	Fall of loose material from Mine bench	Communication on Location of incident is to be communicated properly to Emergency Response team.	NIL	Ensure that safe operating procedures are followed
213	Drilling rod fallen on leg	Mr Karunakar, drilling machine helper, is shifting drilling rod for fixing purpose. Suddenly rod was slipped and fallen on his right leg and small injury was occurred. Mr C.Gangadhara, Drilling machine operator called to Mr J.Bhaskar,Drilling Foreman to blow emergency siren in mines first aid centre. Emergency Team Members are reached to incident spot along with Emergency Kit, and first aid box within the time. Victim was shifted to mines first aid centre with the help of first aiders. First aid treatment was given. The Whole Mock Drill taken 15Minutes (Emergency siren to all clear siren) Blasting spillage boulders accumulated at drilling area.	NIL	Yet to be create Awareness among the workmen and Mine officials during the tool box talk, Any where if such incident occurred, the observer must inform to concerned shift in charge/Section in charge and manager.All loose and instability rocks/ boulders should be removed from the working area and maintain the good housekeeping.

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214	Hitting of Tippers while reversing.	<ul style="list-style-type: none"> • ROM Loading was started around 9.30 am, with an excavator and 3 tippers. • ROM transporting started to crusher hopper around 9.40 am. • Around 11.45 am, the excavator operator stopped the loading for face cleaning. • Tippers are waiting at the loading spot. • Around 12.00 pm, the excavator operator called for the 1st tipper standing at the loading face. • Suddenly 2nd tipper observed the reversing of 1st tipper, he trying to start the tipper but tipper not started for starter problem. • While reversing, the 1st tipper hit the 2nd tipper, but no injury occurred. 	<ul style="list-style-type: none"> • 1st tipper reverse horn not working. • The 2nd tipper was placed very near to the 1st no tipper. • 2nd tipper starter not working properly. • The Supervisor is also not available at the loading spot. 	<ul style="list-style-type: none"> • Before starting work, the reverse horn, horn, starter has to be checked. • If any defect does not allow it to work till rectified. • Placement of tippers has to maintain 30M safe distance of 30M while waiting. • While working Supervisor / Foreman /Mine mate has to be available on the spot.
215	Fire in Machine	<ol style="list-style-type: none"> 1. Fire brigade arrived in time. 2.ERT members in the mines area responded quickly and reached in time. 3. The paramedical staff came in the ambulance which also reached in minimal time - within 12min. 4. All the workmen assembled at assembly point.. 5. Security personnel guided all the workmen 6. The Security officer has very well explained the types of fire and extinguishing mediums. 	<ol style="list-style-type: none"> 1. Siren on the fire tender was not loud enough to ease reaching the site during an emergency. 2. The cap of AFFF tin was hard to open and it took time to open it during an emergency. 3.The personnel have assembled near to the assembly point and not exactly at the assembly point. 	<ol style="list-style-type: none"> 1. Selected security personnel can be trained on fire fighting, and they can accompany with brigade during a fire emergency. 2.AFFF compound storage at the site can be arranged with facility (tools) to un cork it quickly
216	Person Injured during Tyre Inflation	(1)The mock drill has been conducted during general shift end period of persons injured during tyre inflation at garage the response time was observed good and appreciable.(2)Everybody involved in this exercise has taken necessary precautions in view of COVID19,maintained social distancing and used nose mask all the time. (3)Good use of latest communication system observed. (4)It is observed that all the all are aware about the handling of emergency and followed as per emergency preparedness plan at mines.(5)No panic situation at site and emergency handled properly. Alarm activated by emergency Siren : 4:02p.,First aid personnel arrive incident Location: 4:10 pm.,Emergency mitigation time: 4:35 pm	There is a need of exercise so as to increase awareness amongst al concerns and rescue team members suggested for more practice for smooth and speedy rescue operations. Emergency contact numbers &First aider lists to be displaced at more places. Training on emergency plan shall be given to all mine employees during refresher training.	<ol style="list-style-type: none"> (1)Tyre guard should be done. (2)Tyre inflation should be done in open area. (3)Housekeeping need to be done in tyre section area. (4)First-aid team need to be trained once in two months.
217	How to respond if any fall of side occurred in the Mine.	<ol style="list-style-type: none"> A. It was imagined that the fall of side occurred where Excavator is working. B. After getting information Asst. Mines Manager- quickly responded and declared emergency. C. After getting the information from the Asst. Mines Manager the First-Aid team & the Rescue team responded quickly and provided necessary first aid to the injured persons. 	It was observed that quick response from the EX. Operator is required.	Ensure that safe operating procedures are followed
218	Heat Stroke	In the general shift, A supervisor has been allotted to his duty of calculating the number of trips an excavator is loading. During his duty, he is continuously standing and making the entries of the trips in a notebook. Because it is a sunny day around 12:30 pm the supervisor felt dizziness and fell down there. A mining mate named Sreenivasulu noticed this incident and ran immediately to the supervisor to lift him up gave water and taken him to a shaded area. The incident has happened because of over sweating, and loss of fluids in the body. Response time for various activities Response Time Notice of incident 12:35 pm Arrival of mate to incident site 12:37 pm Rescue of victim and taken him to a shaded area 12:38 pm to 12:43 pm Intimation to first aid team 12:40 pm Arrival of first aid team 12:43 pm First aid given to the victim 12:43 pm to 12:48 pm Communication to hospital 12:48 pm When ambulance was ready to shift the victim to hospital 12:49 pm When injured reached hospital 1:13 pm	Hours of standing in sunny, over sweating and loss of fluids in the body.	Workers are suggested to drink the water frequently and taking of ½ hr. break after continuous working of 4 hrs. <u>Regarding First Aid</u> Ensure the affected worker is in a cool and shaded area. Give the worker water as soon as possible. Loosen his clothing and remove outer clothing. Fan air on the worker and place cold packs in his armpits. Place cool water, ice packs, cool compresses or ice on the worker. Stay with the worker until help arrives.

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219	Tipper tyre blast at mines garage.	11.15Hrs. Mr. SANJU supervisor observed the tipper puncture tyre blast while inflating the air in the tyre at mines garage area.11.15 Hrs. Mr. SANJU supervisor called emergency control center and informed about the tipper tyre blast & informed the incident to Security personnel. 11.15 Hrs. Emergency Siren activated for alerting people. 11.15 Hrs. Mr. Anil and Mr.Ramesh, the tyre handling helpers were trying to inflate the air in the tyre. 11.15 Hrs. Mr. Anil while inflating the air in the tyre, tyre blast and hit on his shoulder.11.18 Hrs. Mr. Ravindra Reddy safety officer reached at incident spot 11.19 Hrs. Mr. Nagaraju (Security and fire team) and his team reached to site 11.19 Hrs. Mr. Raghavendra incident controller (shift in charge) reached to site. 10.21 Hrs. All personnel assembled at emergency assembly point. 11.21 Hrs. First aid done by shift in charge, a valid first aid certificate holder. 11.24 Hrs. Medical team: Dr. Suresh and ambulance reached to site. 11.24Hrs. Dr. Suresh asked to incident controller about the medical history happened here and any first aid treatment given to injured person.11.26 Hrs. Medical team shifted the injured person to hospital.11:28 Hrs. Ambulance departure to hospital . 11:33 Hrs. Admin. vehicles reached to site for evacuation and time office officials reached to assembly point for head counting. 11.43 Hrs. Briefing of Emergency preparedness plan and observations to assembled persons. 11.48Hrs. All clear siren and safely disbursed the assembled persons.	1. After assembling at emergency assemble point, the head count of all the personnel got delayed.	1.The tyres should always be inflated in a closed safety inflation cage. 2. Head count of the assembled personnel at Emergency assemble point has to be carried out immediately by the Time office officials.
220	Fire while handling and storage of oil and lubricants	1.Fire Fighters rushed to the site for quenching the fire with portable fire extinguisher. 2. Within a short span of time, the first aider reached a incident area.	1) Lack of work knowledge 2) Lack of safety awareness 3) Delay in communication.	1) Required to educate workers on SOP & HIRA. 2) Unskilled person to work under supervision of skilled person. 3) Safety Awareness to be created.
221	Miscarrying of Explosive	1.Response time : 2 min by blaster 2.Recording of the incident was found correct as per requirement. 3.Safety awareness speech given by safety officer and Blaster to all blasting helpers regarding carrying of explosive.	1. Blasting helper was shifting explosive box to blasting site in improper way. 2. Unauthorized person was carrying detonators box.	SOP to be explained and documented in local language by concerned to the blasting helpers.
222	BURSTING OF BATTERY WHILE STARTING WHEEL LOADER	17 Minutes (enclosed)	1. Mechanical engineer and operator him self attended along with helper for battery problem, with out presence of auto electrician. 2.They failed to replace the new battery. 3.Communication problem with Engineer, operator , Helper. 4.SOP not followed.	1.Mechanical engineer and operator should not attend directly any auto electrical works with out presence of auto electrician. 2.If any problem raises with the battery. Immediately new battery has to be replace . 3. Improve communication before commencement of work. 4. should follow SOP properly.
223	Local Fire Near Oil Storage Shed	1.) Communication in the area by Emergency Siren & Wireless Willkie talkie. Yes Siren & Willkie talkie given for communication.2.) Availability of Emergency Plan indicating actions to be taken, emergency telephone numbers, departmental team members, Yes found to be updated and used.3.) Availability of Safe Assembly Point. Yes Available. 4.) Confirmation of usage of Assembly Point. Yes Used.5.) Use of Portable Fire Extinguishers, Yes Used. 6.)Testing of Workability of safety devices & equipment such as Fire Extinguisher, Emergency Siren etc. Available. Overall Response Time: 2.00 Min.	NIL	Ensure that safe operating procedures are followed
224	Compressor hose burst while drilling	• Drilling was started around 9.05 am. • Supervisor inspected all working area found good. • Around 11.30 am, compressor hose was burst near jack hammer drill. • Hose was flying around the driller. • Immediately supervisor is went and stopped the compressor. • At 12.00 pm Mine Forman went to drilling spot, observed the drilling area. • No any injury occurred. • After incident at 12.30 pm all are assembled at Emergency assemble point and discussed about incident, Mines Manager briefly explained about safety precaution.	• Before starting drill machine driller was not checked the hose joint. • Compressor hose was very old. • Hose clamps also not checked before start drilling.	• Do not use Damage hose while drilling. • Frequently has to be check the compressor hose joints.

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225	Slope Failure	A Sampler was walking on the berm of the fines stock yard and fell down as the material was so soft resulting in the slope failure. This incident was witnessed by the Mining Mate standing near the yard and the same has been informed to the Safety Officer and First Aid Team. The team reached the site within 5-6 minutes. Proper First aid was given to the sampler who fell from the berm of Fines Stock yard. No Major injuries were reported and the victim was shifted to the nearest hospital using ambulance.	NIL	Walking on berms to be avoided strictly. Inspection of Berms to be done at regular intervals. Undercuts must be avoided if any.
226	Land Slide	In the general shift, on the recommendations of the Mine Foreman, a sampler along with the supervisor went to collect the dolomite fines samples from the dump. During their visit to the fines dump, while collecting the sample the loose portion of the dump suddenly collapsed and a huge amount of dolomite fines was rolled on him due to this he was injured. The supervisor who went along with the sampler noticed this incident and called the nearby person for rescuing the injured. They both lifted the injured and took him to a safe place and gave the first aid. This incident information has been sent to the shift in charge and the first aid team they come up with the ambulance and after observing the injured took him to the hospital. Response time for various activities Response Time: Notice of incident 11:32 am Arrival of supervisor to incident site 11:33 am Rescue of victim and taken him to a safe place 11:33 am to 11:45 am Intimation to first aid team 11:46 am Arrival of first aid team 11:51 am First aid given to the victim 11:51 am to 11:56 am Communication to hospital 11:56 am When ambulance was ready to shift the victim to hospital: 11:58 am When injured reached hospital: 12:12 pm	Even though there are some cracks and lumps of piles of fines that got separated from the main portion of the dump the sampler did not predict the portion of its collapse.	First of all, ensure the condition of the dump. After ensuring the condition if it is safe then go for sample collection, if not then inform the concerned person about condition of dump. Proper dump stabilization should be done. Regular inspection of the dump should be made. Some constructive measures may be taken up around the dump from a safety point of view. Plant the saplings once the dump becomes inactive.
227	Monthly Mock Drill Practice	a) Maximum company staff need to attend Mock drill when conducted.	a) Water Bowser must present with hose pipe	a) Require more new Fire fighting equipment
228	Fire occurred to excavator due to overheat.	16.14 Hrs. Mr. Anil Kumar (Excavator operator) observed the fire at excavator engine compartment. 16:14 Hrs. Mr. Anil Kumar, operator tried to suppress the fire at excavator by activating the installed Auto Fire Suppression system. 16:15 Hrs. Mr. Anil Kumar operator called emergency control centre and informed about the Excavator fire at mines pit 4th bench north & informed the incident to Emergency control room. 16:16 Hrs. Emergency Siren activated for alerting people. 16:17 Hrs. Mr. Ganesh incident controller (shift in charge) reached to site. 16:18 Hrs. Mr. Anil Kumar operator while suppressing the fire has got burn injury at right hand and he got slipped on muck pile and causing injury. 16:20 Hrs. Mr. Ravindra Reddy, Safety officer reached at incident spot 16:21 Hrs. First aid done by first aider Mr. Ganesh 16:23 Hrs. All personnel assembled at emergency assembly point 16:26 Hrs. Mr. Santhosh (Security officer) and his fire team and Fire tender reached to site for fire fighting, fire brought under control by fire team. 16:28 Hrs. Medical team with ambulance reached to site. 16:29 Hrs. First aid treatment given to injured person by medical team 16:29 Hrs. Admin. vehicles reached to site for evacuation and time office officials reached to emergency assembly point for head counting. 16:35 Hrs. Medical team shifted the injured person to hospital by ambulance 16:40 Hrs. Briefing of Emergency preparedness plan and observations to assembled persons 16:42 Hrs. All clear siren and safely disbursed.	1. The ambulance reached the mine head by 16:24 Hrs. But reached the incident spot by 16:28 Hrs. Delay in reaching the incident spot by 2:00 min.	1. Direction sign boards to be placed at appropriate places inside the mine so that any emergency vehicles can reach to the spot early.

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229	Fire Fighting	In the beginning workmen were given briefing on fire fighting and practiced how to use fire extinguishers in field. At about 12.30 p.m. Tipper No.06 came to tipper parking yard and parked. The operator Mr Lalu Basha observed some smoke with burning smell from engine side. Immediately he got down from cabin and observed fire in engine. He immediately collected the fire extinguisher (ABC type) fitted at its front portion and extinguished the fire. Then informed to shift in charge and safety officer. After 5 min safety/rescue team reached the dumper parking yard and extinguished at other areas not to spread fire further. Mock drill completed successfully. Time taken for mock drill is 16 min. Cause of fire: The oil hose pipe was damaged and oil sprinkled on engine and caught fire.	Vehicle for conveyance reached lately and safety/supporting team reached to the spot lately.	<ol style="list-style-type: none"> 1. Frequent Mockdrills need to be conducted and Involment of the frontline workers to be encouraged. 2. Proper arrangements of the equipment/s /PPEs/First-aid accessories to be maintained.
230	Transportation Related Accidents/Injuries	<ol style="list-style-type: none"> 1. At 9:40am -Transportation tipper carrying ROM started from working face. 2. At 9:43am - Found tipper been travelled onto a safety berm due to high speed & uncontrollable point and halted in the slant position. 3. At 9:46am-Supervisor found that Transportation tipper was been hit to safety berm and tipper driver in panic. 4. At-9:50am Information was given to shift in charge/section in charge/manager. 5. At 9:53am-Informed Emergency response team 6. At 10:00am-Manager Mines reached the site for controlling the situation. 7. At 10:00am-Ambulance arrives at the place of occurrence. 8. At 10:00am-Emergency response team also reached the site (First Aid Team). 9. At 10:02am-Manager Mines explains complete details of the Occurrence to Emergency response team. 10. At 10:05am-Supply of First Aid Equipment and Safety protective equipments to place of occurrence. 11. At 10:10am-Rescued the transportation tipper driver who had injuries given first aid and sent to the hospital in an ambulance 12. At 10:15am-Rescue of tipper driver was completed. 13. At 10:20am-All workmen were made to gather at safe work place for safety talk and safety pledge. 14. At 10:25am-Manager Mines was informed about completion of recovery operation. 	<ol style="list-style-type: none"> 1. Over speed of tipper operation resulting in uncontrollable situation 2. Improper levelling of material at tipper runway 3. Lack of Concentration on allotted job 4. Human Factors such as Physical & Mental strain, Psychological & social effects 	<ol style="list-style-type: none"> 1. Educating operators/drivers on use of speed at Mine Haulage/Ramp/Runways 2. Providing awareness on clean and neat runway and its results. 3. Creating positive environment to keep operators/drivers focused on the allotted job 4. Regular counselling/positive work environment/positive encouragements
231	Working at height	<ol style="list-style-type: none"> 1. It In charge Briefing About The Work To The Supervisor at:12:01pm 2. Service supervisor climbing the tower with safety harness & ppe's at 12:10pm 3. Supervisor got slipped and fell down at 12:15pm due to scaffold hooks were not locked properly, it in charge immediately informed to the first aid team at 12:20pm 4. First aid team checking victim hand and first aid was done to victim at 12:25pm 5. Shifted victim into the jeep and sent to hospital at 12:30pm. 	Victim removed the scaffold hooks.	Ensure that safe operating procedures are followed
232	While Crusher Operator getting Down the ladder, slipped & fell down	Negligence of Crusher Operator missing of three point contact & Not following SOP it took around 20 minutes for the Mock drill.	<ol style="list-style-type: none"> 1) Improper Maintenance of Ladder 2) Negligence of following SOP 3) Missed three point contact. 	<ol style="list-style-type: none"> 1) Daily educating of SOP and on job training should be mandatory. 2) Avoiding of Oil & Grease on ladders

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233	In this Mock Drill we performed pertain to the Electrical shock that occurred at Static Screen Plant area. The person who is engaged in repairing work of electrical cable work he suddenly gone unconscious due to electrical shock. The co-worker saw the incident and inform immediately to the Mines Foreman. Then the foreman informs to Electrical in-charge and first aid team regarding the incident. Person was rescued and given first aid treatment and hospitalized and the incident has intimated to the Manager for further action.	<ol style="list-style-type: none"> 1. Electric shock observed by the workmen near Static screening plant - 10:02 AM 2. Communication to Emergency Response Team & Incident Controller- 10:04 AM 3. Emergency declared - 10:05 AM 4. Activation of emergency alarm 10:06 AM 5. Emergency response team ready for action. Evacuation team, First aid team - 10:07:30 AM 6. First aid team reached to site- 10:11 AM 7. First Aid treatment and Evacuation started - 10:15 AM 8. All staff and workers reached at Assembly Point for Head Count. All activity were stopped - 10:16 AM 9. A Briefing was done informing about the Emergency Mock Drill scenario and the objective of the drill; we addressed the workers about Lightning Strike Emergency. Safety Officer told the staff and workers about Emergency Response -10:16 AM to 10:21 AM 10. Declared Mock drill successfully completed - 10:22 AM. <ol style="list-style-type: none"> 1. Workers involvement in mock drill are good. 2. They collected their belongings in time. 3. They activated the escape line, emergency exists etc... In the timely evacuated manner. 4. The team has brave approach to mitigate the dangers. 5. Delegations of emergency team from assemble point and their allocation in well maintained. 	<ol style="list-style-type: none"> 1. Found communication is poor between the persons. 2. Electrical Cable Insulation is not done Properly. 	<ol style="list-style-type: none"> 1. Frequent Mock drills need to be conducted and Involment of the frontline workers to be encouraged. 2. Proper Use of the PPEs/First-aid accessories as per the DGMS norms during the Electrical Maintenance work. 3. Frequent check-up and analysis of the Insulation Resistivity of all the cables should be done. 4. Refresher Vocational training for all the electrical supervisors shall be done. 5. Structural Earthing for Static Screening Plant, Motors Body , Electrical and Operational Panel shall be ensured.
234	FIRE	Availability of Portable Fire Extinguishers	Improper handling of Extinguishers	Training in proper usage of the Extinguishers
235	Flood Due to Rain	Persons were not alerted by hearing the alarm sound	More training required	Regular Training and practice required. Action taken for regular
236	Fire Fighting emergency at Work shop.	<ol style="list-style-type: none"> 1. Fire sighted near Mine work shop area at 11:20 am 2. Intimated incident controller to Muralidahara B.S and Manohar.A Safety officer at 11:21 am through wireless by work shop security Maruthi. 3. Gathering of personals and taking head count 11:24am. 4. Head count by Mr. Rudrappa.O 5. Incident controller arranged for Emergency response team (ERT) team. 6. Before the arrival of ERT team fire was Suppressed by Mr. Rama Swamy Wheel Loader operator using Fire Extinguisher. 7. Necessary safety actions were taken by Mr. Rudrappa.O as per directions of incident controller. 8. Inspection of the site done by incident controller. 9. Site was Declared free for operation at 11:35am by incident controller 	NIL	NIL
237	Collision of dumper.	<ol style="list-style-type: none"> 1 Mock drill was conducted for front and rear end Collision for dumpers and rescue the operators. 2. Dumper No. 11 & 12 were engaged for conducting Mock drill at Volta's turning point from 10.40 am. 3. Intimated incident controller Mr. Venkatesh.T and Monahar A. at 10:41am through wireless by Mr. ManojSeeman.S (Graduate Engineer Trainee). 4. By the time incident controller arrived Mr.Ramesh (Driver) of Dumper No.11 turns off the engine and rescued Mr.Ramaswamy (driver) of Dumper No.12 . 5. Incident controller arrived at the location as soon as he received the message. 6. Driver Ram swamy was shifted to First aid station at 10.50Am and first aid treatment was given by Manoj Seeman. 7. Inspection of the site done by incident controller. 8. Declaring the site to free for operation by 11:00am. 	NIL	NIL

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238	Mock drill of Snake bite near scrap yard.	1. Mock drill of snake bite was conducted in Scarp yard near Static plant at 12:30PM. 2.Mr. Raj Narayan, Mr.Umesh, Mr.Nagaraj.C and Hemanth was deployed for scrap yard cleaning work.3. Mr. Nagaraj.C got bitten by snake (mock rehearsal) and Mr.Vijay.P informed the ERT head regarding the incident. 4.Mr.Vijay.P gave message to the ERT Team/Ambulance around 12:32pm. 5.Mr.Basavaraj, ERT team member gave first aid treatment for snake bite and made arrangement to shifting of the injured patient to nearest Hospital through Ambulance. 6. Around 12.35 PM patient was shifted to nearest Hospital by Ambulance.7. Site was inspected by the incident controller at around 12:45pm.8. Declaring the site free for operation by 12:50pm.	NIL	NIL
239	Fall of Person Working at Height.	1.Entire work force assembled at mines Emergency assembling point within 6 minutes of warning siren. 2.Our own First Aid team of 4 members given live demo to all the workmen about the injury and how to act in this type of Situation. 3. Also experts from external agencies has given live demo on proper use of safety belt and rope.	1.Response time increase by 1 minutes 2.One of the employee was asked to tie triangular bandage, but the reef knot was not properly tied	1. Safety Operating procedure for Working at Height to be followed. 2. Practical Training from external agencies to be given monthly once. 3. SOP to be followed without any deviation
240	Fall of person and become unconscious due to Diabetes.	1. Entire work force assembled at mines Emergency assembling point within 5 minutes of warning siren. 2. Our own First Aid team of 4 members given live demo to all the workmen about the root cause for fall and how to act in this type of Situation.	1.Response time increase by 2 minutes 2.One of the employee was asked to position the casualty in appropriate manner and due to rashness he was not able to do.	1. Awareness/ importance to be created about the first aid to all employees & other contractor employees 2. Mock drill on different type of first aid may be conducted at regular intervals
241	Collision of Tipper While Reversing	1.Entire work force assembled at mines Emergency assembling point within 5 minutes of warning siren 2. Our statutory persons briefly explained the statutory provisions to be followed at loading places while reversing	1 No proper use of blind spot mirrors. 2. Safe Operating procedure not followed by the tipper driver. 3.Oversight of tipper driver	1.Safety distance to be maintained in Loading and unloading points. 2.Ensure IP67 enabled reverse horn is used for Audio Alarm 3. Safety pep talk is given to drivers every week in the field. 4. SOP to be followed.
242	Fire in the mine office area	1. The mock drill has been conducted during shift end period with safety officer and security. 2. The response time was five minutes. 3. All employees involved in mock drill are observed following emergency plan prepared for mines. 4. It is observed that all are aware about the handling of emergency and followed as per emergency preparedness plan at mines. 5. No panic situation at site and emergency handled properly with instructions from site controller.	1. The scheduled time of ambulance to reach is 10 minutes but it reached the site in 20 minutes. 2. When discussed with gathering after clearance of emergency about 05% are not aware about the exact flow of information to be taken place during emergency.	1. There is a need of exercise so as to increase awareness amongst all concerns 2. Training on Emergency plan shall be given to all mine employees during refresher training.
243	Fire in Diesel Generator (DG) in mines office	1.First information regarding fire in DG kept at mine office premises given by security guard to shift in-charge. 2. Shift In-charge immediately called fire service team at sendurai as well as informed to mines manager. 3. Mines manager informed to medical officer of Sendurai GH. 4. Medical officer send ambulance and medical staff.	1. Ambulance and medical officer reached at site in 30 minutes. 2. Fire Service team reached at time.	1. A tool box talk has been conducted by shift in-charge in presence of Mines Manager to workmen for proper housekeeping & preventive maintenance of DG to avoid such type of incident. 2. It was ensured that every workman should know the operation of fire extinguisher in emergency.
244	Fire in rock-breaker machine during rock-breaking operation	1. Rock breaker operator informed forthwith about the incident to Asst. Manager present on site by telephonically. 2. Asst. manager immediately rushed to the accident site and also inform Mines manager and Emergency team. 3. Mines Manager instructed for blowing siren and gave instruction to immediately start rescue operation. 4. After recovery of injure persons and rendered first-aid and shifted to Hospital by the Ambulance. 5. Total time taken is 20 minutes.	1. Due to leakage of old diesel pipe, the droplets of diesel fell on the hot parts of engine, due to which the fire started. 2. Daily pre-check of rock breaker machine was not done carefully. 3. Delay in communication given to Asst. manager about the incident	1.Strong focus on preventive maintenance of machine. 2.Daily pre-check of rock breaker machine will be done before commencement of work. 3. Internal Training for employees during emergency.

S.NO	TYPE OF MOCK DRILL	OBSERVATIONS	LEARNING	OUTCOME
245	Unauthorized Entry at Mines Area	1. Entry time of unauthorized person - 10:00 AM 2. Security person ask for entry 10:05 AM 3. Security informed to mines official and Security Vigilance Officer - 10:08 AM 4. Security Vigilance Officer and Mine Official reached at entry point - 10:10 AM 5. Unauthorized person caught hold by Security Vigilance Officer and Carry him outside mine leased area - 10:20 AM	1. Security Person was unknown about Unauthorized entry. 2. Security person phone is out of charge. 3. Unauthorized display board was not at east side. 4. Another one entry needs to be closed in east side.	1. Regular Training should be organized in regular interval. 2. Security stick should be arranged at entry gate. 3. Unauthorized entry prohibited board should be display at east side. 4. Regular Rounds to be carried out by security guards.
246	Safe parking of vehicles at haul roads during emergency.	Emergency Siren was blown to assemble all employees at assemble point. As soon as hearing the siren sound, one of the driver has stopped his vehicle on haul road without applying parking brake and wheel stoppers.(Mock drill took place around 30 Minutes).	Since Parking brake and wheel stoppers are not applied for the loaded vehicle properly, it moved a short distance and collided on the bund. Since strong bund was provided, toppling of vehicle was avoided.	Drivers of all vehicles were instructed by Asst.Mines Manager and Mechanical Engineer to apply parking braking while getting down from the vehicle even any kind of emergency. In this regard, The specific training was provided to the respective driver by Mechanical Engineer.
247	Awareness on effective utilisation of Belt conveyor Safety devices.	During screening plant operation, Khalasi who was working has used a steel pipe to push the oversize boulder in the running belt conveyor with out operating the PULL CORD SWTCH. (Mock drill took place at screening plant for 30 minutes).	The khalasi should have stopped the running belt by operating PULL CORD SWITCH and removed the over size boulder. But he hasn't followed it, this shows his over confidence and his negligence.	Awareness was given to the employees about the usage of Safety devices provided in the conveying system during operation and emergency. Every individual should follow the safety precautions in their respective operations.
248	Awareness regarding dangers from excessive heat and humidity and steps to be followed in case of cardiac arrest.	As Per DGMS (Tech) circular(MAMID)/01: dated 06.05.2015. We have organised a Mock Drill on Medical emergency in case of accidents/incidences due to exposure in high atmospheric pressure and cardiac arrest to the persons employed in opencast workings. Our OHC doctor along with his team made an awareness programme in regard to the causes and health problems due to excessive heat and humidity. Also demonstrated Cardiopulmonary Resuscitation (CPR) to the employees during the event of any cardiac arrest. Mock drill took place for 30 Min.	NIL	Advised all contract supervisors that, persons those who are exposed to high atmospheric temperatures should be provided with adequate quantity of cool water and electrolyte supplements. Rest timings may be rescheduled persons who are exposed to high temperatures.
249	To check the performance of service brake of the Tipper.	Empty Tipper was operated at a speed of 25 KMPH with high RPM from a distance of 100 meters and instructed to apply the service brake at once . (Mock drill took place for about 30 Min.).	Tipper stopped at the stipulated braking distance, however one of the rear wheel was found in motion.	Instructions given to the mechanical engineer to correct the service brake of the tipper and also to check all the tippers plying at mines.
250	Collision of tippers	1. Communication was good. 2. Co-ordination from all departments was good.	Wheel Stretcher is difficult to operate in mines roads	Hand Stretchers are to be kept in ambulance for victim mobilization.
251	Fire and Rescue in Tipper	1. First Aid given was good with proper first Aid Kit. 2. Co-ordination from all departments was good.	1. Vehicle movement is observed in the mines entry zone. 2. Fire tender was delayed in reaching the spot.	Awareness created among the drivers regarding the emergency situations.
252	Fall of persons from height	1. Ambulance and Emergency Rescue Team reached the spot in time. 2. Response of the teams are good.	First aider not used the proper splint for providing first aid to the victim.	All type of splints are to be made available.
253	Toppling of Hauling Unit	Approach road to incident area blocked due to transport tippers	Approach road to incident site blocked due to transport tippers	Awareness given to all tipper Drivers
254	Bench Slope Failure	Site Barricading not done properly	Site Barricading not done properly	Awareness Training given to all persons employed in mines regarding site barricading
255	Fall of material from height due to Over hangs at over burden loading area	Loading activity was observed and found that one or more overhangs were still present, the operator hasn't cleared the overhangs which made the material to fall from a height at the loading point.	Siren not Audible to entire Mine	Siren to be replaced
256	Thunder Storm Strike	All came to Emergency assembly point with in time	Ambulance arrived to incident spot without siren	Awareness given to Ambulance Driver
257	Fire at surface thorn bushes	Fire Tender Came to spot on time	Fitting of Fire hoses to fire tender got delayed	Proper Training to be given to fire fighting crew

S.NO	TYPE OF MOCK DRILL	OBSERVATIONS	LEARNING	OUTCOME
258	Fire in HEMM	Information received to Shift In charge (Mr Aravindan) from the excavator Operator (Mr Subash) at around 11:00 am ,that the operator observed a fire in battery box. Shift In charge passed the information immediately to the Mine Manager and Main Gate Security at 11:03 am. Operator switched off the machine and activated the battery cut off switch and got down from the machine by 11:04 am. The main gate security alerted the fire tender and arranged for dispatch to mines site. Meanwhile, the shift in charge informed the site security about the incident and security raised emergency siren at around 11:07 am. The shift in charge along with security and operator took the portable fire extinguisher and rushed to the site. The fire tender reached to the spot by 11:15 am. The Mine Manager arranged a Post meeting in Assembly point and declared area to be safe. Siren was raised for resuming to work.	1. The security was searching for the siren key and the key was available with the shift electrician. 2. There was a delay in fire tender to reach the spot due to village festival.	1. The Mine Manager suggested to provide a key holder and to place the siren key near to the siren. 2. Suggested to use mines 4 km road particularly in case of emergency needs for fire tender/ambulance.
259	Fire Fighting preparedness- Fire in EME garage	1.First person reached the Emergency assembly point less than one minute. 2.Number of persons assembled was cross checked with attendance. 3.All Emergency Response teams were reported in Emergency assembly point in time. 4.Given awareness to the gathering.	NIL	Fire fighting training to be given to all operators.
260	Fire Fighting preparedness- Fire in HEMM	1.Everyone assembled in Emergency assembly point in time. 2.All teams reported in Emergency assembly point in time. 3.Number of persons assembled was cross checked with attendance. 4.Checked the HEOs for awareness on AFDSS. 5.At the end of Mock drill, special awareness was given.	NIL	Fire fighting training to be given to all operators.
261	Fire Fighting preparedness- Fire in HSD storage area	1.Everyone assembled in Emergency assembly point in time. 2.Number of persons assembled was cross checked with attendance. 3.All Emergency Response teams were reported in Emergency assembly point in time. 4.Awareness created on isolation of HSD Barrel got fire by evacuating other materials with less time. 5.Given awareness to the gathering.	Sand kept in bucket was found compacted.	1.Periodical replenishment of sand to be done. 2.Fire fighting training to be given to all operators.
262	Fire Fighting preparedness- Fire in HEMM	1.Everyone assembled in Emergency assembly point in time. 2.All teams reported in Emergency assembly point in time. 3.Number of persons assembled was cross checked with attendance. 4.Checked the HEOs for awareness on AFDSS. 5.At the end of Mock drill, special awareness was given.	NIL	Fire fighting training to be given to all operators.
263	Inundation protection preparedness	1.Everyone assembled in Emergency assembly point in time. 2.Number of persons assembled was cross checked with attendance. 3.All Emergency Response teams were reported in Emergency assembly point in time. 4.Rehearsal taken to evacuate HEMM to safe place. 5.HEO's awareness was checked while interaction.	HSD in Rock Breaker was near to low level.	HSD to be maintained to safe level in all Contractor's equipment's.
264	Fire Fighting preparedness- Fire in EME garage	1.First person reached the Emergency assembly point less than one minute. 2.Number of persons assembled was cross checked with attendance. 3.All Emergency Response teams were reported in Emergency assembly point in time. 4.Given awareness to the gathering.	NIL	Fire fighting training to be given to all operators.

S.NO	TYPE OF MOCK DRILL	OBSERVATIONS	LEARNING	OUTCOME
265	Fire Fighting preparedness- Fire in HEMM	1.Everyone assembled in Emergency assembly point in time. 2.All teams reported in Emergency assembly point in time. 3.Number of persons assembled was cross checked with attendance. 4.Checked the HEOs for awareness on AFDSS. 5.At the end of Mock drill, special awareness was given.	NIL	Fire fighting training to be given to all operators.
266	INUNDATION AND INRUSH OF WATER INTO PITS	Mock drill conducted that, in case of any inrush of water due to distraction of Odai path of water into the working pit, immediate response step by step such as Alarming, vacating the persons from the pit, measures to regulate stream and stop the inrush of water.	It is found that some of the workers not trained to face the situation of inrush of water and some of the steps for mitigate the situation were not known.	We had given the training and also a document in local language to the mine workers to execute the step by step remedial/mitigation measures against the inrush situations and taught the importance of embankment around the pits and also about the dewatering operation with higher capacity pumps.
267	HANDLING THE SITUATION OF FIRE ACCIDENT BY FIRE EXTINGUISHER	We had conducted mock drill to train the workers and Security personnel to handle the fire Extinguisher to fight against fire near the hydraulic Excavator working in the mines.	It is observed that initially some quantity of the chemical powder from the extinguisher were flushed into the area other than fire and then diverted to the fire occurred area.	We had given proper training to mine workers and securities about the types of fire and extinguishers to be used and also how to handle the extinguisher in order to fight the fire in efficient manner. Excavator Operator is taught about the Automatic fire detection and suppression in further case of fire.
268	Fire	(1). All the workers ad staffs are reported to the assembly point without any panic at 14.00 hrs. (2). Communication was well enough to reach the drill area at the right time in 14.05 hrs. (3). Artificial Fire created in a open space and quenched it using fire extinguishers. 14.06 hrs. (4).Emergency response team ready for action at 14.07 hrs. (5). Fire fighting stated in artificial fire point, 14.08 hrs. - 14.12 hrs., (6).Fire Closed 14.12 hrs. (7). All workers reached at Assembly point, All activity were stopped at 14.15 hrs. (8). Mock drill successfully completed at 14.16 hrs.	Found one of the Fire extinguisher is not working properly.	Informed to the Management and replaced the Fire extinguisher.
269	Localized Mock Drill	04:15 PM Information received to Site Controller (Mr Jeevan Venkatesh G) from Incident Controller (Mr Aron), He expressed about the Electric Spark in Fuel Dispensing unit.4:16PM Site Controller (Mr Jeevan Venkatesh G) & Incident Controller(Mr G.Aaron) rushed to the spot with Sai Divine Mechanical Engineer(Mr Praveen Arokia raj) & Rescue Team. Observed the situation of spark on the Spot & Electrical Terminal was disconnected. 4:18PM Site Controller (Mr Jeevan Venkatesh G) informed the Security take care of Mine entrance Gate into Control.4:19 PM.Site Controller (Mr Jeevan Venkatesh G) informed the AGM Mines 4:20PM.Fire Extinguished with Portable cylinder 4:23 PM Persons Started assembled near Safe assembling point & observed all persons reached the Assemble point. Total Head count - 84:28 PM Called for a Post meeting at Assembly point by Site Controller Mr Jeevan Venkatesh G & Declared safe. Regular Operation resumed.	1.Movement of Vehicle during emergency was stopped immediately at Mine entrance by security 2.Awareness of Security guard 3.Good Response by Team Members & reached the spot quickly and attended the Fire	1. Worn out Earth Chain the browser is to be replaced Immediately. 2. Awareness on connecting Static Electric System to be given to Browser driver and Helper
270	Inundation	Dewatering water with Huge Pumps. Involvement of Plumbers & Electricians	Electricians & Plumbers in efficient	Given proper training to Plumbers & Electricians speedy removal of
271	fire in tipper &compressor	Fuel pipe leakage and fire	operator/ Tipper Drivers	Compressor Operator and Tipper Driver given Tainting to suppress the fire with the help of fire Extinguisher and sand buckets
272	Inundation	Adequate no. of trained persons and pumps should be available	Insufficient no. of pumps	Arrangement of high capacity pumps
273	Side Fall during Misfire checking in W-11 panel.	(1) At location of accident, loose sides with slight overhang condition found. Same required proper dressing before and during face operations. (2)Blasting crews entered face even when proper clearing of blasting fumes had not taken place. (3) Two persons were injured at 12:30 pm but only one stretcher was available in First Aid station/ Panel. (4) Injured persons rescued and brought to fresh air base within 10 minutes. (5) Splints & bandages found but only one blanket was available. (6) CLMRS stretcher was available in complete manner at curve station. (7) Ambulance was ready at surface on time.	(1)Regular dressing of loose coal in roof and sides is required on regular basis. (2) Sufficient time to be given for blasting fumes clearance before entering face. (3) Less skill was observed amongst workers about stretcher drill and application of splints. (4)Lack of cleaning, and proper house keeping in galleries. (5) At least two stretcher were not available. (6)Two blankets must be kept in First Aid station all the time.	(1) Proper training to be given to all workers to develop skill in stretcher drill, application of splints. (2)Proper and regular dressing to be carried out as and when required. (3) Proper cleaning of dust and boulders in roadways and housekeeping is required.(4) Well equipped type First Aid station to be maintained all the time in panel.

S.NO	TYPE OF MOCK DRILL	OBSERVATIONS	LEARNING	OUTCOME
274	Fire/ Explosion	response time = 40 min. Workers responded well on whistle of M/Sirdar summoned at Mustering point. M/Sirdar explained the veracity of the situation and after counting by name ordered workers to proceed to Surface by Emergency escape route M/Sirdar was the last person to evacuate to surface. After coming to surface M/Sirdar reconciled manpower at control room.	1) Cap Lamps returned from underground were not stored separately as the Lamp room attendant was new. 2) contractor workers were there in the mine but nobody bothered to take them safely to surface. 3) in course of evacuation one of the workers in spite of going to surface proceeded in by in the district to collect his clothes with his valuables in pocket. 4) one of the workers on reaching surface neglected timely reporting to attendance clerk/ returning cap lamp and gone to work shop, reported later on searching. 5) in spite of declared emergency and all workers evacuated to surface empty coal tub set descended belowground.	1) lamp room attendant to be of permanent nature.no frequent change should be there. 2) explained Supervisors to treat contractor workers as departmental workers. 3)repeatedly explained workers through safety talk and site visits importance of emergency. no work/ wealth/ implements are worthy except life saving .4)repeatedly explained workers through safety talk and site visits importance of emergency. no work/ wealth/ implements are worthy except life saving on instructions of in charge/supervisor.5)repeatedly explained workers through safety talk and site visits importance of emergency. no work/ wealth/ implements are worthy except life saving on instructions of in charge/supervisor.
275	Air-Blast	response time = 15 min. On getting signs of Strata movement i.e. impending roof fall in the district in decoaled area he blown whistles in order to collect persons in Air-Blast-Shelter.	1) some of the workers ran towards miner's station instead of going towards Air-Blast-Shelter. 2) dresser was instructed by two supervisor differently/in parallel. 3) supervisor blown no. of whistles randomly in spite of blowing fixed number of 10 times.	1) workers and supervisors are repeatedly explained through safety talk about what to do in what type of emergency. 2) worker should be under the sole control of one supervisor. no other one should give instruction to this worker except through his in charge. 3)workers and supervisors are repeatedly explained through safety talk about modes of informing about emergency/no. of whistles to be blown.
276	Inundation	response time = 40 min. Information received from Belowground that abnormal water flow is observed in Main Dip District . CDS operator informed all authorities and in neighbouring district about the the same. Supervisor taken all manpower under his control to surface.	1) on instruction /information of CDS Operator Pump Khalasi with his co-worker reached to surface but no supervisor bothered for them. 2) Cap Lamps returned from underground were not stored separately as the Lamp room attendant was new. 3) contractor workers reached to surface but no instruction from supervisor given to them for evacuation	1)explained to supervisors that he should also take care of Pump Khalasi with his co-worker as they are also under their control. 2) advised production in charge lamp room attendant to be of permanent nature.no frequent change should be there. 3)explained Supervisors to treat contractor workers as departmental workers.
277	C.M Panel No 2 Air-Blast	response time = 12 To 15 min.On getting signs of Strata movement i.e. impending roof fall in the district in decoaled area mining supervisor blown whistles in order to collect persons in Air-Blast-Shelter.	1) some of the workers ran towards miner's station instead of going towards Air-Blast-Shelter. 2) Different instruction were given to dresser by two different supervisor. 3) supervisor blown no. of whistles randomly in spite of blowing fixed number of 10 times.	1) workers and supervisors are repeatedly explained through safety talk about what to do in what type of emergency. 2) worker should be under the sole control of one supervisor. no other one should give instruction to this worker except through his in charge. 3)workers and supervisors are repeatedly explained through safety talk about modes of informing about emergency/no. of whistles to be blown.
278	61LS/MD Inundation	response time = 45 min. Information received from Belowground that abnormal water flow is observed in 63LS/3D. CDS operator informed all authorities and in 58LS/MD,61LS/MD district about the the same. Supervisor took all manpower under his control to surface.	1) on instruction /information of CDS Operator Pump Khalasi near 3D/63LS with his co-worker reached to surface but no supervisor bothered for them. 2) Cap Lamps returned from underground were not stored separately as the Lamp room attendant was new. 3) contractor workers reached to surface but no instruction from supervisor given to them for evacuation. 4) Telecommunication system not working properly so there is delay in communication for contractor worker working at sectionalisation stopping.	1) advised production in charge lamp room attendant to be of permanent nature.no frequent change should be there. 2) explained to O/M.M.S of 61LS/MD that you should take care of pump khalasi with his co worker as they are also under ther control. 3) explained Supervisors to treat contractor workers as departmental workers and supervisor do his job well. 4) Telecommunication system should be in working order.

S.NO	TYPE OF MOCK DRILL	OBSERVATIONS	LEARNING	OUTCOME
279	58LS/MD Fire/ Explosion	response time = 40 min. Workers responded well on whistle of M/Sirdar and gathered at rest shelter. M/Sirdar explained the veracity of the situation and after counting by name ordered workers to proceed to Surface by Emergency escape route M/Sirdar was the last person to evacuate to surface. After coming to surface M/Sirdar reconciled manpower at control room.	1) Cap Lamps returned from underground were not stored separately as the Lamp room attendant was new. 2) in course of evacuation one of the workers in spite of going to surface proceeded in bye in the district to collect his clothes with his valuables in pocket. 3) one of the workers on reaching surface neglected timely reporting to attendance clerk/ returning cap lamp and gone to work shop, reported later on searching.	1) lamp room attendant to be of permanent nature.no frequent change should be there. 2)repeatedly explained workers through safety talk and site visits importance of emergency. no work/ wealth/ implements are worthy except life saving . 3)repeatedly explained workers through safety talk and site visits importance of emergency. no work/ wealth/ implements are worthy except life saving on instructions of in charge/supervisor. 4)repeatedly explained workers through safety talk and site visits importance of emergency. no work/ wealth/ implements are worthy except life saving on instructions of in charge/supervisor.
280	INUNDATION	Response time = 45 Minutes. 1. Information received from below ground that abnormal water flow is observed in main dip district. CDS Operator informed all authorities to established control room. 2. Mr. H. Mahlik O/M taken out all main power under his control.	1. Two contractor workers was left in the rise side of the material line. They were not listen the whistle sound. 2. After counting two person were Missing O/M send M/S to call both person.	1. Arrangement of siren to listen all workers in the district easily. 2. explained workers through safety talks, escape route & also know the emergency response.
281	INUNDATION	Response time = 35 Minutes. 1. Mr. Ganesh Prasad O/M whistle loudly and continuously after few minutes all workers are gathered. 2. O/M & M/S Explained the situation and all workers are proceed to surface through main raider and all are follow the escape route.	1.crowd is formed at main raider station . 2. cap lamp room attendant was not stored the cap lamp separately of evacuated person.	1.Educate to all workers how to behave in emergency. 2. Lamp room attendant should be permanent nature and he knows duty in emergency.
282	Fire	response time = 60 min. Workers of E-1 section responded well on whistle of M/Sirdar summoned at Mustering point. M/Sirdar explained the veracity of the situation and after counting by name ordered workers to proceed to Surface by Emergency escape route . Mining Sirdar was the last person to reach surface.	1) knowledge of operating portable fire extinguisher needs improvement. 2)Awareness on escape route needs improvement. 3) Emergency situation is communicated properly through telephone from CDS.	1) Operation of portable fire extinguisher was explained to workmen through actual demonstration at surface. 2) Awareness of Escape route is improved through Safety talk and marking was made in under ground.
283	Inundation	response time = 60 min. Information received from Belowground that abnormal water flow is observed in E-2 District of Lower workable seam . CDS operator informed all authorities and in neighbouring district about the the same. Supervisor taken all manpower under his control to surface.	1)Emergency situation is communicated properly. 2) Mining Sirdar informed all the persons in the district about emergency situation and carried out physical checking of all persons under his control. 3) Mining Sirdar instructed them to proceed to surface via escape route.	1) Discussed with Mining Sirdar to treat contractual workers also as departmental worker during emergency situation. 2) Telephone in the district is to be kept maintained in working order all the time .
284	Inundation	Time taken for total operation was appr. 10 min.	Time management needs more care.	NIL
285	Spontaneous beating	1.Manpower came at surface at about 4.10 PM along with Overman and mining Sirdar of the districts. 2.Total time taken was 40 minutes 3.There was used the escape route	Panic created	NIL
286	INNUNDATION	Persons reach the place within 30 minutes	UG Telephone was not working properly	To maintain telephone properly
287	INUNDATION	30 MIN.	Contractual workers engaged in construction of ventilation stopping could not reach at safe base.	To make aware contractual workers regarding mock drill and how to response in emergency periods.
288	SPONTANIOUS HEATING	Pump khalashi at VA seam received late information because he was sited at 13LN/0D.	Install telephone at 13LN/0D	NIL
289	Inundation	Telephone of maindip pump was not working properly	replace telephone by new.	
290	INUNDATION	Person reach the safe place within 30 minutes except the persons engaged in ele. Work.	1.Worker engaged in ele. Work could not reached at safe base. 2. Communication problem as there was no mobile signal.	1. To make aware the workers regarding mock drill and how to response in emergency. 2 Use of siren / shouting the people for communication.

S.NO	TYPE OF MOCK DRILL	OBSERVATIONS	LEARNING	OUTCOME
291	INNUNDATION	Total response time 30 min.but it takes 33min	Time fixed for communication to surface 2min. But it takes 5min.because loading point (37D/7D) and discharge point (31L/7D) Tele Phone were Breakdown. Sri Mukesh M/S, came to Manriderstation (20L/10D)to give information to surface about the incident.	To provide telephone at all loading points & discharge points and maintain properly at main dip section
292	Inundation (inrush of water)	All The Workers Involved In activity were Fully aware With Such Typeof mock drill Response time - 25 minute for complete evacuation of men and machineries.	Delay in communication to pump khalasi.	Improvement is required in alertness and communication system.
293	Withdrawal of men and machinery from Bhanegaon OCM in the event of water level of Kanhan river touches the warning level i.e. 275.00mtr.	1. At about 11.30 PM, Shri Amit Darodkar, Mining Sirdar and Shri Nagina Changur river guard posted at Bina Sangam, Kanhan river side, observed that water level of Kanhan river touches the warning level 275m. 2.Mining Sirdar immediately informed colliery manager on mobile phone and rushed to MTK/Pit office for informing the officials and supervisors present on duty. 3. Hooter was rang 10 times to indicate impending emergency. 4. Safety officer Shri Umbarkar ensured complete withdrawal of all persons engaged in the mine and machineries to safe places. 5. MTK Mr. HarshalBorkar physically verified each worker withdrawn from faces and pumping operations. Headcount was 100% completed. 6. Colliery engineer ensured delivery pipe lines to be separatedfrom pumps in installed on pomtoons. 06 nos. of Life Saving Jackets and 04 rings along with Manila rope was use in evacuation process. 7. For complete process for withdrawal of men and machinery, response time required was 28 minutes which is satisfactory.	1. The River guard was very alert to notice the increasing water level. 2. All members of emergency organisation were involved in mock drill. 3. Flood alarm siren was blown at MTK office.	1. Supervisors should be equipped with mobile ohone in case of emergency for effective communication. 2. Management should be in contact with nearby dam authority during rainy season.
294	Withdrawal of men and machinery from Adasa UG to OC Mine due to water level of seasonal Nallah touches the warning level.	1. Observed around 11.45 that water level of seasonal Nallah touches the warning level by safety guard deployed at the site. 2. He immediately informed to Safety Officer, MTK & Supervisor (Member of emergency organisation) He rang emergency siren as per followed by SOP. 3. Safety officer Shri J.S.Parihar and Shift In charge ensured complete withdrawal of all persons and machinery to places. Then MTK count all heads completely. 4. The whole process took 31mins (response time) 20 minutes which is satisfactory.	NIL	1. Response time could be less then 30 mins. 2. Shift wise deployment of manpower to continues monitoring of water level and flood alarm in monsoon season.
295	Withdrawal of men and machinery from Quarry in the event of bench slide at Singori OCM	1. At about 11 am, overman Shri Prashant Borkar observed that bench at West side of quarry slides. He immediately swing into action and informed to shift in charge, Safety Officer and colliery Manager on mobile. 2. Colliery Manager on receiving the information message immediately called upon and guided safety officer, all supervisor and the members of Emergency organization and authorised Signatory of HOE contractor. 3.The hooter was rang 10 times to indicate the impending emergency. 4. Safety officer ensured complete withdrawal of men and machinery deployed in the mine to a safe place. 5. The response time for complete evacuation of men and machinery is 20 minutes which is satisfactory.	1.Communication over telephone was very good in a nutshell Singori OCM is well prepared for any exigency arising due to bench slide of quarry. 2. All members of emergency organisation were involved in mock drill.	Supervisors should be equipped with Walkies/Talkie so that they immediately inform the supervisors in case of emergency.
296	Inundation	1. The response time was 30 min.for complete evacuation of men and machineries which was satisfactory. 2. All members of emergency organisation were involved in mock drill.	NIL	1. River Hood level alarm erected at Nallah connected to security check post of AIK Deep OCM for indicating impending danger. 2. Continuation monitoring and recheck the HFL of Nallah for better assessment of water level during heavy rain and back flow of Knahan river water.
297	Inundation	1. Workers got panicked due to heavy in rush of water. 2. Telephonic message not received as per response time.	1. Underground drains were chocked and cleared. 2. Telephone not working properly.	All the concerned person should be advised to improve response time.
298	Inundation	1. Workers got panicked due to heavy inrush of water. 2. Telephonic message not received as per response time.	1. Underground drains were chocked cleared. 2. Telephone not working properly.	All the concerned person should be advised to improve response time.

S.NO	TYPE OF MOCK DRILL	OBSERVATIONS	LEARNING	OUTCOME
299	Spontaneous heating.	1. Workers got panicked due to heavy inrush of water. 2. Telephonic message not received as per responsive time.	1. Underground drains were chocked. 2. Telephone not working.	All the concerned person should be advised to improve response time.
300	Inundation	emergency organisation put into operation. Response time 1hr 15 min.	General shift mining sirdar and O/M to be more alert and responsive	statutory inspection of emergency route to be maintained and recorded in a bound paged register