दि उड़ीसा मिनरलस् डेवलपमेंट कंपनी लिमिटेड
(भारत सरकार का उद्यम)

THE ORISSA MINERALS DEVELOPMENT CO. LTD.
(A Government of India Enterprise)

ଦି ଓଡ଼ିଶା ମିନେରାଲ୍ସ୍ ଡେଭେଲପ୍‌ମେଣ୍ଟ କମ୍ପାନି ଲିମିଟେଡ୍
(ଭାରତ ସରକାରଙ୍କ ସଂସ୍ଥା)

Ref .:NSE, BSE, CSE/OMDC/CS/11-2023/01
Dated: 10.11.2023

To, The Compliance Department National Stock Exchange of India Limited Exchange Plaza, Plot No. C/1, Block —G, Bandrakurla Complex, Bandra (E), Mumbai - 400051 **SCRIPT CODE: ORISSAMINE**	To The Compliance Department Department of Corporate Services Bombay Stock Exchange Limited 1st Floor, PhirozeJee, Jeebhoy Tower, Bombay Samachar Marg, Mumbai-400001 **SCRIPT CODE: 590086**	To The Secretary The Calcutta Stock Exchange 7, Lyons Range Kolkata-700001 **SCRIPT CODE: 25058**

Dear Sir/Madam,

Sub.: Permission from DGMS for deployment of Heavy Earth Moving Machineries (HEMMs) & deep hole blasting in Bagiaburu mines of OMDC.

Directorate General of Mines Safety (DGMS), Govt. of India vide NO: 330113|SEZ|Bhubaneshwar Region 1|Perm|2023|258722 dated 10th November, 2023 has granted permission for extraction by deployment of HEMMs at Quarry A is demarcated as 1,2,3……12,13 & 1 and at Quarry B is demarcated as 14,15,16……23,24 & 14 in blue colour in conjunction with deep hole blasting in Quarry B area demarcated as A, B, C, D & A in violet colour, subject to the conditions as stipulated at Bagiaburu Iron Mine of OMDC over lease area of 21.52 Ha located at Village Uliburu, Tehsil Barbil, District Keonjhar, Odisha. The communication dated 10th November, 2023 issued by DGMS, Govt. of India is enclosed for reference.

You are requested to kindly take note of the above information on record.

Thanking You.

Yours faithfully,

For The Orissa Minerals Development Company Limited

S. Raja babu

S. Raja Babu
Company Secretary

भारत सरकार
Govt. of India
श्रम एवं रोजगार मंत्रालय
Ministry of Labour & Employment
खान सुरक्षा महानिदेशालय
Directorate-General of Mines Safety

NO: 330113|SEZ|Bhubaneshwar Region 1|Perm|2023|258722 Date: 10/11/2023

प्रेषक

खान सुरक्षा निदेशक ,

भुवनेश्वर क्षेत्र-1 ।

सेवा में ,

अभिकर्ता, Bagiaburu Iron Mines,

M/s Orissa Minerals Development Co. Ltd.

पी.ओ.: उलीबुरू,ठाकुरानी,बरबिल ,

ज़िला: केओंझर,ओडिशा-758035 .

विषय : Application for exemption under Regulation 106(2)(b) of the Metalliferous Mines Regulations, 1961 to deploy Heavy Earth Moving Machineries for excavation of Ore & Waste and to conduct deep hole blasting at Bagiaburu Iron Mines of M/s Orissa Minerals Development Co. Ltd.

महोदय ,

कृपया उपर्युक्त विषय पर अपना ऑनलाइन आवेदन आईडी258722दिनांक27/08/2023और ऑफ़लाइन जमा की गईPlanऔरSection देखें।

इस मामले पर आपके आवेदन और संलग्नplans/sections और अन्य संलग्नकों में दी गई जानकारी के आधार पर विचार किया गया है।

In exercise of the powers conferred on the Chief Inspector of Mines (also designated as Director-General of Mines Safety) under the provisions of Regulations 106(2)(b) of the Metalliferous Mines Regulations, 1961 and by virtue of authorisation granted to me by the Chief Inspector of Mines (also designated as Director-General of Mines Safety) under Section 6(1) of the Mines Act, 1952, I, in supersession of permission granted earlier on the above subject, hereby permit you to work **Bagiaburu Iron Mines of M/s Orissa Minerals Development Co. Ltd** as shown in the plan No. DWG 01 dated 10.08.2023 for extraction at Bagiaburu Iron Mine by deployment of Heavy Earth Moving Machineries (HEMMs) at Quarry A is demarcated as 1,2,3……12,13 & 1 and at Quarry B is demarcated as 14,15,16……23,24 & 14 in blue colour in conjunction with deep hole blasting in Quarry B area demarcated as A, B, C, D & A in violet colour, subject to the conditions as stipulated herein, being strictly complied with:

1.0 GENERAL:

1.1 Except where otherwise provided for in this conditional permission, all Provisions of the Metalliferous Mines Regulations, 1961 shall be strictly complied with.

1.2 No working shall be made or extended within 45 m of any building/structure of permanent nature, not belonging to owner of the mine without permission in writing from this Directorate under Regulation 109 of the Metalliferous Mines Regulations, 1961.

1.3 The Scientific Study for the Pit and Dump Slope Stability shall be carried out by a reputed Scientific Agency. The bench height, bench width, ramp widths, etc. shall be so designed that Factor of Safety at any point of overall pit slope in the quarry and dump slope shall not be less than as suggested in the Scientific Study for the Pit and Dump Slope Stability.

1.4.1 No blasting shall be done within 100m of any dwellings and other important structures not belonging to the owner of the mine. All other blasting in the mine shall be carried out strictly as per the stipulations laid down in Regulation 164 of the MMR, 1961.

1.4.2 No deep hole blasting shall be done within 300m of any surface buildings, structures, public roads, etc, not belonging to the owner unless separate permission under Regulation 164(1-B) of Metalliferous Mines Regulations, 1961 is obtained from this Directorate.

1.4.3 No deep hole blasting shall be done at Quarry A in the area demarcated as 1,2,3……12,13 & 1 and at Quarry B in the area demarcated as 14,15,16……23,24 & 14 shown in blue colour on plan No. DWG 01 dated 10.08.2023. The area shall be demarcated physically on the ground by red colour pillars.

1.4.4 Blasting shall be conducted only after ensuring that persons including blaster within 500m radial distance from place of firing of shot holes have taken proper shelter. The persons/employees of the nearby mines, crushers, SJSPL plant, Fly ash brick factory, labour camp, security room, offices, dwellings, schools, structures etc belonging or not belonging to owner lying within 500m radial distance shall also been withdrawn outside danger zone or removed to proper blasting shelter.

1.4.5 No blasting in the mine shall be carried out within 300m of public/service roads till such time the blasting incharge has ensured that no persons/vehicles passes on such roads during the time of blasting. For the purpose, drop bar barrier shall be provided on both side of such road at a distance of 300m from the place of firing of shots in the proposed limit of quarry and during blasting, guard shall be posted on the barrier and persons/vehicles shall not be allowed to pass on the siad road during blasting and till the time all clear after blasting is obtained.

1.4.6 Owners of structures and dwellings, not belonging to the owner of the mine and habitants/occupants of such dwellings/buildings shall be indemnified against damage to property/injury to persons, if any, arising out of blasting operations.

1.5 No blasting shall be conducted using SME/SMS/ANFO explosive without having valid permission obtained under Regulation 155(1) & 162(5) of Metalliferous Mines Regulations, 1961.

1.6 The mine shall be kept under the charge of a person holding First Class Manager's Certificate of Competency under the Metalliferous Mines Regulations, 1961, who shall be assisted by adequate number of Assistant Managers, Surveyors, Foremen, Mining Mates and Engineers as per the said Regulations. The manager shall exercise daily personal supervision in the mine and he shall not take up any appointment in any capacity whatsoever in another mine. Where by reason of absence or for any other reason the Manager is unable to exercise daily personal supervision, a person holding a valid Manager's Certificate shall be authorized to act as Manager of the Mine in compliance with Regulation 34(7) and if no such qualified person is available, the mine workings shall be kept suspended.

1.7 No person shall be employed in the mine unless his attendance is recorded in the registers maintained in prescribed Form at the time when the person, against whom the entry is made, enters or leaves the mine as required under Section 48 of the Mines Act, 1952 and Rule 78 of the Mines Rules, 1955 read with DGMS Circular No.01 of 2017. The entries in the Form shall be made at suitable points in the premises of the mine at reasonable distance from work place by a person who is paid by the Owner or the Agent and is answerable to the Manager and not by a contractor's employee.

1.8 No work whatsoever shall be done where the provision of Regulation 127 of the Metalliferous Mines Regulations, 1961 are attracted due to the presence of river, jore, reservoir and nallah in the vicinity. The entire ground lying within 15.0 m of HFL of all the rivers, nallas, water reservoirs and jores shall be filled up and raised and consolidated to a R.L of at least 3.0m above the highest flood level.

1.9 Safety Management Plan shall be prepared and implemented as per DGMS Tech (S&T) Circular No.5, dated: 02.04.2016 and DGMS Technical Circular No. 3/2019.

1.10 Emergency Management Plan shall be prepared and implemented as per the DGMS (Tech.) (S&T) Circular No. 08 of 2016.

2.0 OPENCAST WORKINGS:

2.1 Height and Width of Benches:

2.1.1 The height of benches in Alluvium shall not be more than 3.0m and that in overburden, ore body or other rock formation shall not be more than the digging height of the machine used for digging, excavation or removal or 6.0 m whichever is less.

2.1.2 The width of any bench shall not be less than : (i) the width of the widest machine plying on the bench plus two metres, or (ii) three times the width of the largest dumper/truck/ tipper if dumpers/trucks/tippers ply on the bench, or (iii) the height of the bench, whichever is more.

2.2 No manual workers shall be employed where HEMM is deployed in the mine.

2.3 No mineral or debris or overburden shall be stacked or dumped within 100m around the active mine workings. The backfilled area shall be kept benched and the distance of any active mine workings (faces) from the toe of the bottom-most backfilled face (bench) shall not be less than 100m.

2.4 The quarrying operation shall be conducted from top downwards and no men & machines shall be deployed at the bottom of high benches.

2.5 No person other those required for operating the machinery shall be allowed to remain near the foot of the benches exceeding 3.0m in height. When persons are employed within 3.0m of the bench sides, adequate precautions shall be taken to ensure their safety by dressing or/and supporting the sides of the benches.

2.6 No person shall be engaged or work or allowed to travel close to high sides/ benches, from which he is likely to fall for more than 1.8 m vertically down, unless he is provided with and uses a safety belt or rope.

2.7 Special care shall be taken when any slip or other planes of weakness or other geological disturbances exist, so as to prevent danger to the work-persons.

2.8 Adequate steps shall be taken to ensure that the benches are kept dressed at all times.

2.9 Sufficient number of safety belts shall be available at the site and shall be ensured the use of the same. Proper drains shall be provided at the benches to prevent accumulation of water.

2.10 Comprehensive ground-water monitoring programme and pit dewatering (by drilling vertical and horizontal holes in pit-slope back) shall be drawn and implemented. Adequate number of piezometers to cover the entire length and breadth of the quarry shall be installed for the purpose. The readings shall be taken and recorded during all 4 seasons of the year.

2.11 Where the excavation is proposed in an area having surface topography in the form of hillock(s), the mining shall be started with making of haul roads right upto the top (peak) of the hillock(s) and the workings shall proceed by forming benches from top downwards.

2.12 Continual recording and assessment of geo-technical conditions encountered shall be done. Mapping of weak zone, faults and bedding planes shall be done regularly.

3.0 ROADS FOR TRUCKS AND DUMPERS, etc:

3.1 All haul roads for dumpers/trucks/tippers or other mobile machinery shall be constructed to suit its load capacity and shall be maintained in good condition. No vehicle other than the transport vehicles shall be used on the haul roads, except between designated points and when permitted in writing by the manager.

3.2 All haul roads leading from the opencast workings to surface shall be arranged to provide one-way traffic. Width of the haul road shall not be less than “2 times the width of the largest vehicle plus 3m” plying on that road. Where it is not practicable to provide for one way traffic, no road shall be of a width less than “three times the width of the largest vehicle plus 5m” plying on that road. Definite turn-outs, crossing points, and waiting points shall be designated and demarcated by proper sign boards for the guidance of drivers of such dumpers/trucks/tippers.

3.3 If large capacity dumpers and smaller capacity tipping trucks or similar transport vehicles are deployed in the mine, separate roads for tipping trucks or similar transport vehicles shall be provided.

3.3.1 Plying of dumpers or tipping trucks on the same bench where men are to work, travel or rest shall be avoided.

3.4 All corners and bends on haul roads shall be so designed, made and kept maintained that the operators and drivers of vehicles plying on the haul road have clear view for a distance not less than 3 times the braking distance of the largest HEMM working at 40 kms/hour. Where it is not possible to ensure the visibility as stated above the road shall be provided with two separate lanes for up and down traffic, each of width not less than2times the width of the largest vehicles plying thereon plus 3 m, with a strong divider at centre with adequate lighting and reflector along the divider.

3.5 Except with the express permission in writing of the Regional Inspector of Mines (now designated as Director of Mines Safety), no haul roads shall have a gradient steeper than 1 in 16 at any place, except for ramps over small stretches not exceeding 10 m in length, where gradient upto 1 in 10 may be permitted.

3.6 Where any part of the road exists above the level of the surrounding area, a strong parapet wall or berm or embankment of the following dimensions:

i. width at top not less than 1 m,

ii. width at bottom not less than 2.5 m,

iii. the height not less than the diameter of the tyre of largest vehicle plying on the road.

It may be noted that mere dumping of mud or overburden shall not be treated as strong parapet wall.

3.7 Warning notices and road signs shall be posted along the haul roads at appropriate places like crossings, curves etc. for guidance of drivers of dumpers/trucks/tippers.

3.8 At every curve, parapet wall or vertical posts with zebra lines shall be provided to help the drivers to keep the trucks/tippers/dumpers on the track.

3.9 Separate haul road shall be provided for light vehicles plying in the mine premises. Where it is not practicable, definite turnouts, crossing points and waiting points shall be designated for use of vehicles.

4.0 FENCING AROUND OPENCAST WORKINGS:

4.1 The periphery around the limits of opencast workings shall be kept fenced with a masonry wall not less than 0.40m thick and not less than 1.2 m in height, with a parapet top.

4.2 The top edges of the opencast workings shall be kept fenced with wire rope strands or barbed wire, supported on movable posts (wooden, iron or concrete). The gap between the adjacent rope strands or wires shall not be more than 0.30 m, the bottom-most rope strand/wire shall not be more than 0.25 m above the ground level and the top most rope strand or wire shall not be less than 1.00m from ground level.

5.0 SPOIL, OVERBURDEN OR DEBRIS BANKS:

5.1 Spoil, overburden or debris shall be deposited at places belonging to the mine and duly approved by the manager in writing.

5.1.1 Spoils, overburden or debris shall not be deposited, beneath transmission, telephone or power lines or near any other public structure.

5.1.2 The slope of a spoil bank face shall be determined by natural angle of repose of the material being deposited, but shall in no case exceed 37.5 degrees from the horizontal. The spoil bank face shall not be retained by artificial means at an angle in excess of its natural angle of repose.

5.1.3 Any spoil bank exceeding 30 m in height shall be kept benched so that no such bench exceeds 30 m in height and the general slope does not exceed 1 vertical to 1.5 horizontal. In no case, the overall height of spoil bank shall be allowed to exceed 120 metres unless a scientific study on its stability has been done and a separate permission is obtained from this Directorate.

5.1.4 The spoil bank face shall not be retained by any artificial means at an angle in excess of its natural angle of repose.

5.1.5 Garland drains shall be provided around the periphery of the dumps, both at top and bottom, to collect run-off water. A clay capping shall be made over the exposed dump surface to prevent water entry.

5.1.6 Formation of any spoil bank shall be made from bottom to top. No dumping from top to bottom shall be done in the mine. It shall be ensured that no water is accumulated at the toe of the every dump.

5.2 The spoils, overburden or debris shall not be deposited within 45 m of a railway line, public road, other public works or other structures of permanent nature, not belonging to management.

5.2.1 The toe of the dump shall not be allowed to approach any of the above-stated structures closer than1.5times the vertical height of its face.

5.2.2 A suitable fence shall be erected between any railway line, other public works or road, or building or structures of permanent nature not belonging to the management, and the toe of every active spoil bank so as to prevent un-authorised persons from approaching the spoil bank.

5.3 No person shall, or shall be permitted to approach the toe of an active spoil bank where he may be endangered from material rolling down the face. Suitable warning signs at conspicuous places shall also be displayed.

5.4 Dumps, Pits and their monitoring:

(a) An appropriate scheme for mining and slope monitoring on the basis of scientific study inputs/report shall be prepared by the Owner and Agent of the Mine as required under the provisions of Regulation No 106 of MMR1961, read with DGMS (Tech) Circular 2 & 3 of the 2020 and mine is being worked as per the above scheme of mining.

(b) The Manager of the mine shall hold a detailed technical review of the recorded observations on ground movement and the received analysis report(s) from the engaged scientific organization at east once every week with the mine officials and representatives of the engaged scientific organization. The minutes of the meeting shall be recorded in a bound paged book kept for the purpose and signed by the manager.

(c) The toe of the standing dumps shall be effectively consolidated by any suitable arrangement in consultation with scientific agency.

5.5 It shall be ensured that the waste dumps are provided with proper garland drainage all around the toe, suitably pitched with cement-concrete in such a manner that there is no stagnation of water at anytime, anywhere along the toe. Similar drainage arrangements shall also be provided in each of the terraces/benches. The top of the dumps shall be devoid of depressions with potential to form water pools and be kept so sloped to the side away from the pit for effective drainage of rain water. A clay capping shall be made over the exposed dump surface to prevent water entry.

6.0 GENERAL LIGHTING:

6.1 Adequate general lighting arrangements conforming to stipulations not less than as specified in DGMS(Legis.) Circular No.03 of 2017 dated 06.11.2017 issued under Regulation 148(2) of the Metalliferous Mines Regulations, 1961, shall be strictly complied with.

6.2 Illumination surveys at interval not exceeding 30 days shall be conducted at all work-places to ascertain the standards of illumination.

6.3 For proper inspection of the high sides, benches and other places of the opencast workings at night, suitable search lights shall be provided to the concerned mine officials.

7.0 PRECAUTIONS AGAINST FIRE:

7.1 A code of practice shall be drawn up for dealing with fires at different locations in the opencast mine, and for dealing of fires in heavy earth moving machinery.

7.2 Automatic fire protection system shall be provided and kept maintained in working order on every HEMM used for loading and transportation. Recommended procedure for testing of such fire protection system, at a given interval as prescribed by the manufacturer shall also be adopted.

8.0 SUPERVISION:

8.1 (a) A person, possessing qualification as per the provision of Regulation 34 of the Metalliferous Mine Regulations, 1961, shall be appointed as the manager of the mine. This permission shall stand revoked as soon as the qualified manager ceases to work at the mine.

(b) During every shift, the opencast workings shall be placed under the charge of such number of Assistant Managers of First class certificate holder either restricted or Unrestricted, assisted by sufficient numbers of mine foremen and mining mates, as to have overall control and guidance of operations connected with the mine and who shall be responsible to see that all the regulations and orders made there under are strictly complied with. The number of mine foreman so provided shall not, in any case, be less than the norm set out by DGMS Circular No.34 of 1974.

(c) The manager shall not be appointed in any other mine.

8.2 Each and every operation, including operations carried out through contractors' workers or by outside agency, shall be placed under the charge of a competent supervisor, duly appointed and authorised by the manager, with his jurisdiction being clearly demarcated.

8.3 A code specifying duties and responsibilities of all mine-officials, i.e., Assistant Managers, Under Managers, Engineer(s), Supervisors, Technicians, Mechanics, Fitters, Machine Operators, helpers, loading supervisors etc. shall be drawn up and distributed to all concerned.

8.4 The Manager shall issue to every Driver/Operator, Supervisor and Mine Official connected with the use of Heavy Earth Moving Machinery, a copy of rules/regulations, orders made there-under and guidelines listed in this permission governing his duties, in a language understood by the person concerned. The Manager and the engineer shall be responsible to ensure that all the precautions and guidelines listed in this permission are strictly followed by all concerned.

8.5 It shall be the responsibility of the Manager, Engineer and other supervisors to ensure that all persons working in the mine, and those working on machines/equipment etc. work as per the code and all machines and equipment etc. are installed, operated and maintained in safe working conditions.

9.0 ADDITIONAL DUTIES OF ENGINEERS PLACED IN CHARGE OF MACHINES ANDEQUIPMENTIN OPENCAST WORKINGS:

9.1 During each shift, the machines and equipment deployed in the mine shall be placed under the charge of such number of qualified and experienced engineers as is adequate to effect adequate inspection, examination, safe operation and maintenance of the machines, equipment and accessories.

9.2 During his shift the engineer/engineers shall -

(a) Inspect & examine machines, equipment and accessories, and satisfy himself that they are in sound and safe working order.

(b) Not allow any machine, equipment to be used, if it is found defective.

(c) Ensure that every machine, equipment, accessory is used in a safe and efficient manner.

(d) Ensure that each operation/activity concerning repair, maintenance and operation of machinery/equipment is carried on in a safe and efficient manner.

10.0 INSPECTION, EXAMINATION, REPAIR AND MAINTENANCE OF HEMM ANDOTHERMACHINES:

10.1 All track/tyre mounted machineries deployed in the mine shall be provided and maintained with safety features stipulated in DGMS (Tech) Cir. No. 03 of 2016 and DGMS (Technical) Circular no. 06 of 2020.

10.2 A scheme for proper maintenance, repair, overhaul and erection in respect of heavy earth moving machinery (commensurate with the capacity/size type of machines used in the mine), covering places such as repair sheds and workshops, shall be drawn and implemented. This shall also include framing and implementation of Code of Practice for erection, inspection, examination, repair, maintenance, etc. of such equipment before putting the same into use in the mine.

10.3 Every drilling and earth moving machinery or equipment or accessory (herein after called machine) shall be thoroughly examined at least once in every shift and maintained in good and safe working condition. In case ofwheeled trackless HEMM like dumpers, trucks, tippers and other such machinery, special attention shall be paidto safe working order of brakes, steering system, horn, audio-visual reversing alarm, side indicator lamps, rearview mirrors and head lights & tail lights.

10.4 A record of examination and maintenance carried out in accordance with the above shall be maintained in a bound paged register which shall be signed by the concerned shift engineer and countersigned by the Engineer-in-charge.

10.5 If the engineer, mechanical foreman or other competent person making an inspection notices any defect in any machinery, the said machinery shall not be used until the defect has been remedied.

10.6 Any defect in any machinery, reported by its operator, shall be promptly attended to.

10.7 Any machinery found to be in an unsafe operating condition shall be tagged at the operator's position;"Out of Service, Do not Use" and its use shall be prohibited until the unsafe condition has been corrected.

10.8 All repairs to a machine shall be done at a location which provides a safe place for the persons engaged on repairs.

10.9 Except for testing, trial or adjustment, which must necessarily be done while the machine is in motion, every machine shall be shut down, and positive means taken to prevent its operation, before any repair, maintenance or lubrication is undertaken on it.

10.10 Power shall be disconnected when repairs are to be carried on any electrically powered machine/apparatus.

10.11 Any machinery, equipment or part thereof which is suspended or held apart by use of slings, hoists, or jacks shall be substantially blocked or cribbed, before men are permitted to work underneath or between the same.

10.12 While inflating tyres, suitable protective cages shall be used. Tyres shall in no case be inflated by sitting either in the front of it or on top of the same.

10.13 Operation and maintenance of heavy machineries such as shovels, excavators, pay-loaders, dumpers, tippers, trucks etc. shall be done strictly in accordance with the OEM's operation and maintenance instructions which shall be obtained from the manufacturers.

10.14 The stability of HEMM shall be carried out after every major overhaul by an independent agency.

10.15 The crane and overhead crane shall be subjected to proof load test and NDT test once in a year from a competent authority.

10.16 The pressure vessel receiver shall be subjected to hydraulic and NDT test and shall be carried by a competent authority.

10.17 In case of any defect in equipment such as brake, steering and safety device, the equipment shall immediately be taken out from use keeping a record thereof.

11.0 PROTECTIVE EQUIPMENT:

11.1 (a) Every person working in the mine shall be provided with, and shall use, a helmet, protective, Footwear, fluorescent jacket, dust masks, goggles and ear plugs/earmuffs of a type approved by the Chief Inspector of Mines.

(b) Every person permitted to work on height or at any place having inclination of 45 degrees or more, from where he is likely to slip or overbalance, shall be provided with, and shall use, a full body harness of a type possessing valid BIS license and approved by the Chief Inspector of Mines.

11.2 All the persons employed beyond day-light hours shall be provided with, and shall use, fluorescent jacket and helmet with fluorescent band.

12.0 PRECAUTIONS AGAINST DUST:

12.1 Adequate arrangements to allay dry dust, by wetting, shall be made on haul roads and benches where mobile HEMM, trucks and dumpers operate.

12.2 All provisions of Regulation 124 of the Metalliferous Mines Regulations, 1961 regarding precautions against dust shall be strictly complied with.

13.0 DRILLING AND BLASTING OF DEEP HOLES:

13.1 General:

13.1.1 Operations connected with Drilling, Charging, Stemming and Blasting of deep holes shall be placed under overall charge of an Assistant Manager who shall supervise the said operations in accordance with the guidelines and directives issued by the Manager.

13.1.2 Not withstanding anything contained in the Metalliferous Mines Regulations, 1961, preparation of charges, charging and stemming of holes shall be carried out under the personal supervision of a mine foreman, who shall fire the shots in deep holes himself.

13.1.3 Proper record for every blast, showing blasting parameters like hole size, spacing, burden, depth of holes, number of holes fired in the round, charge/hole, charge/delay and total charge of explosives fired in the round, with a rough sketch showing the drilling and firing pattern shall be kept maintained in a bound paged register kept for the purpose.

13.2 Drilling of Deep Holes:

13.2.1 The area where drilling is to be done shall be thoroughly cleaned of loose rocks and debris and position of every deep hole to be drilled shall be distinctly marked by the blasting foreman, so as to be readily seen by the drillers.

13.2.2 No drilling shall be commenced in an area where shots have been fired, until the blaster/ blasting foreman has made a thorough examination of all places, including remaining butts of old deep holes, for unexploded charges that the drill rod may strike.

13.2.3 No drill or bore rod or pick shall be inserted in butts of old deep holes even if an examination under clause 13.2.2 has failed to reveal presence of explosives.

13.2.4 Drilling and charging of deep holes shall not be carried out in the same area at the same time.

13.2.5 Drilling operations shall not be carried on simultaneously on two benches, at places directly one above the other.

13.3 Duties of Drill Operators:

13.3.1 At the beginning of his shift, the drill operator shall examine the drilling equipment and satisfy himself that -

(i) Crown blocks are mounted securely;

(ii) Where compressed air drills are used, all hose connections are in order;

(iii) The drilling equipment is in safe working condition, and,

(iv) Wet drilling system is in order.

13.3.2 The drill operator shall ensure that -

(i) Work persons keep clear of auger and drill stem while the drill is in motion;

(ii) Work persons do not work under suspended tools, when tools are removed from the holes,

(iii) All finished drill holes are properly plugged so as avoid possible injury to any one accidentally stepping onto the hole.

13.4 Charging of Deep Holes:

13.4.1 General precautions and rules regarding handling of explosives shall be observed by the blasting crew. Only such minimum number of person shall be allowed to remain at the charging site as are required during charging operations and firing of shot holes.

13.4.2 The entire area where charging of explosives is to be done shall be demarcated by suitable flags and effectively guarded to prevent unauthorized entry of persons or plying of other vehicles, and shall be kept free from dry vegetation and other combustible material.

13.4.3 Smoking, naked light, mobile phones or open flames shall not be allowed within 300m of the area where charging of explosives is being carried on.

13.4.4 The holes shall be charged (and fired) as soon as possible after the explosive is transported to the site of blasting. All normal precautions for charging (and firing) as laid down in the Metalliferous MinesRegulations,1961 shall be strictly

observed.

13.4.5 Explosive cartridges shall not be slit or deformed. Adequate amount of cap sensitive explosive shall be used with non-cap sensitive explosive charge to ensure complete detonation of the explosive charge.

13.4.6 Explosives shall be delivered/charged first into the hole farthest from the 'Priming Station'.

13.4.7 Not more than one hole shall be in process of being charged on any face at any point of time.

13.4.8 All operations connected with charging, stemming and making connections shall be done while standing on the solid ground.

13.4.9 The cartridges of explosives shall be lowered carefully into the shot holes, so as to avoid sticking of cartridges in the shot holes, thereby causing air space(s) in the explosive column. After charging such hole with explosives, the length of the uncharged/remaining portion of the hole shall be measured to confirm that the cartridges are in close contact with each other and there is no air gap between the explosive columns. In case, the length of uncharged portion of the hole is not as per calculation, thereby indicating the presence of air space, attempt may be made to push down the charge in case of slurry explosives only. The remaining hole shall then be stemmed with moist sand before blasting the shot holes.

13.4.10 Explosive charge shall not be allowed to sleep over in holes unless express permission in writing to the effect is obtained.

13.4.11 The safe explosives charge for a limiting peak particle velocity shall not exceed the limits recommended at Para 7.2 of D.G.M.S. Circular No.7 of 1997. The P.P.V. of every blast shall be measured and the records of the same shall be maintained in a bound paged book and signed by Blasting Officer and countersigned by the Manager.

13.5 Precautions during Blasting/Firing:

13.5.1 Shots shall not be fired except during the hours of day light. All holes charged on any one day shall be fired on the same day.

13.5.2 Shots shall not be fired in crushed, broken or fractured ground.

13.5.3 As far as practicable, deep holes shall be fired either between the shifts, or during the rest interval, or at the end of work for the day.

13.5.4 The danger zone shall be distinctly demarcated (by means of red flags or other suitable means) at least 30 minutes before firing of holes.

13.5.5 Proper and distinct warning by a siren installed for the purpose shall be given within the danger zone, at least 10 minutes before the holes are fired.

13.5.6 Before the holes are charged, stemmed and fired, the shotfirer/blasting foreman, with assistance of his assistants, appointed in sufficient number in writing by the manager, shall ensure that all persons have either left the danger zone, or have taken adequate shelter.

13.5.7 In case part of a public road lies within the danger zone, guards shall be posted on either end of the road falling within danger zone, and traffic shall be stopped before shots are fired. In the event of any railway line lying within the danger zone, no shot shall be fired when there is traffic on the railway track.

13.5.8 During approach of an electric storm, following precautions shall be taken –

i. No explosives, particularly detonators shall be handled.

ii. If charging operations have begun, work shall be discontinued till the storm has passed.

iii. If shots are being fired electrically, all exposed wires shall be coiled up and kept covered by something other than a metal plate.

iv. All wires shall be removed from contact with metallic plates/steel rails so as to prevent the charge from exploding prematurely by a local strike of the lightning.

13.5.9 After shots have been fired, no person shall enter or be allowed to enter the place, until 30 minutes after firing of the shots. Before allowing any person to enter the area, the Assistant manager/Under Manager in-charge of the blasting operations shall make sure that the area is free from dust, smoke or fumes.

13.5.10 In case of misfires, precautions as laid down in Regulation 167 of Metalliferous Mines Regulations, 1961 shall be taken.

13.6 To control flying fragments resulting out of blasting, following additional precautions shall be taken

(i) Blasting shall be done against free face only.

(ii) Moist sand or only such stemming material that is free from pebbles and stones chips shall be used for stemming of holes.

(iii) The area falling within a distance of 100cms from the collar of each blast hole shall be cleaned of loose stones, drill cuttings, debris and other loose materials.

(iv) Shot holes shall be adequately muffled by laying wire net, tyres, rubber mates or old conveyor belting over the entire area and by placing 40-50 Kg sand bags at every 3.0 m interval.

(v) Not more than three rows shall be fired in a round of blast. The blasting patch shall be such that the length of the face is more than three times the width of the face.

(vi) Face of the blasting patch shall not be oriented in the strike direction. The initiation of a round shall start from the village end.

(vii) Danger zone shall be kept marked in the field as well as on the plan maintained under Regulation 60of Metalliferous Mines Regulations, 1961.

14.0 DESIGN, OPERATION AND MAINTENANCE OF SHOVELS, EXCAVATORS, PAYLOADER&OTHER MACHINERIES:

14.1 Every shovel, excavator and pay-loader shall be so designed as to afford the operator clear and uninterrupted vision all around.

14.2 Every shovel, excavator, pay-loader, dozer and drills shall be maintained in good and safe working condition and shall be provided with -

(i) efficient warning devices;

(ii) front and rear lights of adequate intensity and a portable lamp for use in emergency, unless the loading equipment is not intended to be used beyond day-light hours; and

(iii) an approved type of portable fire extinguisher or other approved type fire suppression system inefficient working condition so placed as to be within easy reach of the operator.

(iv) fire resistant hydraulic hoses in place of ordinary hoses to decrease the chance of fire and fire resistant sleeves and conduits where cable/wire is used;

(v) a retractable ladder for mounting onto the machine;

(vi) proper seat belt for operator;

(vii) turbo charge guard

14.2.1 The following safety features shall also be provided with every shovel and excavator -

(i) all functions cut-off switch;

(ii) swing motor brake;

(iii) vent valve on top of hydraulic tank of such a type which is removable without any tool;

(iv) a baffle plate between cold zone and hot zone;

(v) provision for limiting of hydraulic cylinders – stopper.

14.2.2 All dozers shall also be provided with roll over protection.

14.2.3 All drills shall also be provided with the following safety features -

(i) approved type of dust prevention or suppression system;

(ii) each moving parts shall be guarded/fenced in effective manner;

(iii) emergency push button switch in operator’s cabin, main frame, propeller pendent and rear end;

(iv) tripping device to trip the field switch;

(v) thermostat motor protection relay in winding armature and other related parts;

(vi) explosive vent in transformer;

(vii) proper interlock (an electric interlock between drilling and propeller operation);

(viii) high air discharge temperature switch;

(ix) low lub oil pressure switch;

(x) oil stop valve (electric solenoid valve in compressor lubrication line);

(xi) no bump circuit

(xii) tower lock and lock check valve

(xiii) proper joystick - spring loaded type to return to neutral (dead man safety)

(xiv) disk brake and brake valve and its testing parameters;

(xv) lock check valve for preventing creeping in drill;

14.3 The operator's cabins of every shovel, excavator, pay-loader and other HEMM shall be well designed and substantially built and air-conditioned so as to render adequate protection to the operator against heat, dust, noise etc. A seat belt for the safety of the operator shall also be provided in the equipment/HEMM.

14.4 Every shovel, excavator and pay-loader shall be under the charge of a competent person, authorised in writing by the manager, herein called the 'Operator'.

14.5 All persons employed or to be employed to operate shovel, excavator, pay-loader and other HEMM shall be trained and their competency shall be evaluated by a Board constituted by the management. The members of such board shall be persons who are not connected with imparting of training. However, the training officer(s)may be co-opted in the Board as observer.

14.5.1 Only such fitters/mechanics possessing driver's/operator's license, shall be allowed to carry out test-run of shovel, excavator, pay-loader and other HEMM.

14.6 No person other than the operator or the manager or any person so authorised in writing by the manager shall ride on a shovel, excavator or pay-loader.

14.7 No person shall be permitted to ride in the bucket of a shovel, excavator or pay-loader.

14.8 Shovel/excavator dippers and pay loader bucket shall be lowered to the ground during greasing operations.

14.9 No shovel, excavator or pay loader shall be operated in a position, where any part of the machine or suspended loads there from are bought closer than 3m to exposed high voltage transmission lines, unless the current has been cut off from such exposed transmission lines, and positive means have been taken to prevent the lines from being energized. A notice of this requirement shall be posted at the operator's position.

14.10 Electrical cables, if any, shall be laid in such a manner that they are not endangered either by falling rocks or by any mobile equipment.

14.11 The shovel/excavator/pay-loader bucket shall be pulled out of the bank as soon as it is full.

14.12 When being operated in soft or unstable ground, every shovel and excavator shall be supported on mats, heavy planks or poles so as to distribute the load of the machinery over larger area and prevent its toppling.

14.13 When not in use, shovel, excavator and pay-loader shall be moved to and stood on stable ground.

14.14 If more than one stripping machine is in use in any area, either on the same bench or on different benches, the machines shall be so spaced that there is adequate space for safe operation of each equipment, and there is no danger from flying or falling pieces of stones etc. from one machine to the other.

14.15 The safety features recommended in equipment shall be made a part of the notice inviting tender for new procurement and the design and drawing shall be obtained from OEM for fitting the same in old equipment.

15.0 DUTIES OF SHOVEL, EXCAVATOR & PAYLOADER OPERATORS:

15.1 Before any machine is put into operation, the operator shall look for any placards/tags on the machine like “OUT OF ORDER”, “UNDER REPAIRS”, etc. and in case such tags are seen anywhere in the entire system, the machine shall not be started.

15.2 At the commencement of his shift, the operator shall personally inspect and test the machine, paying special attention to the following details

(i) that every warning device is in working order,

(ii) that it is mechanically sound and in efficient working order, and

(iii) that the lighting fixtures are in proper working order, if the machine is required to work beyond day-light hours.

15.3 He shall not take out the machine for work nor shall he work the machine, unless he is satisfied of its safe working order.

15.4 The operator shall maintain a record of every inspection made under clause 15.2 in a bound paged book kept for the purpose, and shall sign every entry made therein.

15.5 The operator shall keep the cab window clean so as to ensure clear vision at all times.

15.6 The walkways in or about the cab of any shovel, excavator and pay-loader shall be kept free of loose tools, grease containers or other materials that might fall or give rise to tripping hazard.

15.7 The operator shall not operate the machine when persons are in such proximity as to be endangered.

15.8 The operator shall not swing the bucket over-passing the trucks/dumpers when they are being loaded. He shall swing the bucket over the body of the truck/dumpers whilst loading and not over the cab, unless the cab is protected by a substantially strong cover.

15.9 Before leaving the machine, the operator shall lower the bucket to the ground.

15.10 The operator shall not allow any unauthorized person to ride on the machine.

16.0 DESIGN, OPERATION AND MAINTENANCE OF TRUCKS AND DUMPERS:

16.1 Every truck or dumper and other mobile equipment shall be maintained in good and safe working condition and shall be provided with:

(i) two brakes. One of the brakes shall be fail safe. Efficient service brake, secondary brake, parking brake, and speed retarder and an emergency steering in case the steering system is hydraulically operated;

(ii) efficient horn;

(iii) rear view mirrors of adequate size on either side of the vehicle and blind spot mirror apart from the rearview mirrors to enable operator to have clear visibility of blind spot in and around dumpers;

(iv) rear vision system shall be installed in the equipment especially in dumpers/tippers. The system shall be provided with a monitor which can be installed inside the cabin of the operator & an automatic switch on the reverse gear actuates ultra-low light camera with sufficient number of infra-red LEDS installed at rear of the vehicle which provide picture in nearly pitch dark & poor weather conditions and a clear and sharp picture is displayed on the monitor;

(v) automatically operated audio-visual alarm which gets switched on no sooner the gear lever is shifted in “reverse” position;

(vi) side indicator lights;

(vii) efficient head-lights, if the truck/dumper/equipment is required to work beyond day-light Hours;

(viii) Retro reflective reflectors on all sides for visibility of trucks or dumpers during night;

(ix) Auto dipping system to reduce glaring on eyes of operator during night operation;

(x) proper seat with seat belt for driver or operator along with reminder to alert operator to use the same;

(xi) a substantially strong canopy to cover the driver’s/operator’s cabin fully;

(xii) mechanical steering locking to prevent untoward movement of steering wheel;

(xiii) locking arrangement for lifted body and a hooter along with an indicator to indicate if the body is still in lifted position;

(xiv) mechanical type anti collision device (Tail gate Protection) to avoid head to tail collision on haul road such as tail gate, bumper extension or any other strong device;

(xv) fire resistant hydraulic hoses in place of ordinary hoses to decrease the chance of fire and fire resistant sleeves and conduits where cable/wire is used;

(xvi) propeller shaft guard;

(xvii) proximity warning device;

(xviii) provision of restricting maximum speed of the vehicle to 30 kms/hour by blocking higher gear or any other automatic means/limiting speed device;

(xix) approved type and factory fitted fire suppression system;

(xx) Battery cut-off switch to reduce chance of fire; and

(xxi) Load indicator and recorder to prevent overloading.

16.2 The operator's cabins of dumpers/tippers/other mobile equipment shall be well designed, substantially built and air-conditioned so as to render adequate protection to the operator against heat, dust, noise etc. A seatbelt for the safety of the operator shall also be provided in dumpers/tippers/ other mobile equipment.

16.3 The audio-visual alarm provided on trucks/dumpers/other mobile equipment shall be of such intensity which is not less than 5dB(A) above the surrounding noise level.

16.4 Every truck or dumper shall be under the charge of a competent person authorised in writing by the manager herein called the 'driver'.

16.5.1 All persons employed or to be employed to drive/operate trucks/dumpers/tippers shall be trained and their competency shall be evaluated by a Board constituted by the management. The members of such board shall be persons who are not connected with imparting of training. However, the training officer(s) may be co-opted in the Board as observer.

16.5.2 Only such fitters/mechanics possessing driver's/operator's license, shall be allowed to carry out test-run of trucks/dumpers/tippers.

16.6 No person other than the driver or the manager or any person authorised in writing by the manager shall ride on a truck or dumper.

16.7 No person shall, or shall be permitted to, ride on the board of a running truck or dumper.

16.8 No vehicle shall be loaded/unloaded on gradient.

16.9 As far as possible, loaded trucks or dumpers shall not be reversed on gradients.

16.10 Sufficient stop blocks shall be provided at every tipping point and these shall be used on every occasion, material is dumped.

16.11 Code of Traffic Rules framed by the Manager shall be adopted and followed during movement of all trucks and dumpers. They shall be prominently displayed at relevant places in the opencast workings and on truck/dumpers roads.

16.12 When not in use, every truck or dumper or other wheeled trackless machinery shall be moved to and parked at proper parking place(s) which shall be on level ground and away from working area of other mobile equipment. The truck or dumper or other wheeled trackless machinery shall not be parked at a place where it cannot be observed.

16.13 No person shall, or shall be permitted to, work on the chassis of a truck or dumper, with the body in a raised position unless the truck or dumper body has been securely blocked in position. The hoist mechanism shall not be depended upon to hold the body of the truck or dumper in a raised position.

16.14 Suitable points shall be designated for parking utility vans and other light vehicles in the opencast workings, which in no case shall be less than 30m away from the area where mobile HEMM operates. The light vehicles shall in no case be taken beyond the designated point unless operation of HEMM in the vicinity has been stopped.

16.15 No person other than those authorised shall be permitted to enter or remain in any dumping yard, loading and unloading points and turning points.

16.16 In respect of every truck/dumper or class of truck/dumper, the maximum load to be hauled shall be determined and notified to operators/drivers by the Manager. Speed limits at which such loads can be hauled shall also be determined and fixed by the Manager, depending on the road gradient, direction of movement, road surface etc., and notices/sign boards specifying the same shall be posted along the haul road at appropriate places/sections.

16.17 The safety features recommended in dumpers/trucks/tippers shall be made a part of the notice inviting tender for new procurement and the design and drawing shall be obtained from OEM for fitting the same in old equipment.

17.0 DUTIES OF TRUCK/DUMPER/TIPPER OPERATORS:

17.1 Before commencing work, the driver shall personally check the dumper/truck/tipper for oil(s), fuel & water levels, tyre inflation, and general cleanliness, and inspect and test the vehicle, paying special attention to the following details:

(i) that brakes and steering system are in proper working order;

(ii) that the warning devices including automatically operated audio visual reversing alarm are in working order;

(iii) that rear view mirrors on either side of the vehicle, rear vision system and blind spot mirrors are provided;

(iv) that side indicator lights are in working order; and

(v) that head lights are in working order, if the vehicle is required to work after day-light hours.

17.2 The driver/operator shall not take out the vehicle for work nor shall he drive the vehicle, unless he is satisfied that it is mechanically sound and in efficient working order.

17.2.1 He shall wear the seat belt before starting the vehicle and shall also ensure that other person(s), if so authorised to ride in the vehicle, are properly seated and also wear safety belts.

17.3 The driver shall maintain a record of every inspection made under clause 17.1 in a bound paged book kept for the purpose and shall sign every entry made therein.

17.4 The driver shall keep the cab window clean so as to ensure clear vision at all times.

17.5 The driver shall ensure that the gear is in neutral position, and parking brake is on, before stopping the engine.

17.5.1 The driver shall handle the truck/dumper carefully and keep it under control at all times. He shall negotiate downhill gradients in low gear so that minimum of braking is required.

17.5.2 He shall not drive too fast, shall avoid distractions and shall drive defensively. He shall not attempt to overtake another vehicle unless he can see clearly area enough ahead to be sure that he can pass it safely without exceeding the speed limit, and that area ahead is free of any road intersection or junction. He shall also sound audible warning signal before overtaking and shall not attempt to pass the other vehicle until he has received a proper audible signal in reply.

17.5.3 When approaching stripping equipment, the driver of the truck or dumper shall sound the audible warning signal and shall not attempt to pass the stripping equipment until he has received a proper audible signaling reply.

17.5.4 Before crossing a road or railway line, he shall reduce his speed, look in both directions along the road or railway line and shall proceed across the road or railway line only if it is safe to do so.

17.5.5 The driver shall not operate the truck or dumper in reverse unless he has a clear view of the area behind the vehicle. He shall give an audible warning signal before reversing a truck or dumper.

17.5.6 Driver shall be sure of clearance before driving through tunnels, archways, plant structure etc.

17.5.7 The driver shall not drive 'nose to tail' particularly behind a vehicle with twin rear wheels from which as tone piece wedged between the tyres may fly back into the windscreen of his vehicle.

17.5.8 He shall sound audible warning while approaching blind corners or any other points where person may walk in front unexpectedly.

17.6 The driver shall see that the vehicle is not overloaded and that material is not loaded in a manner as to project horizontally beyond the sides of the vehicle's body and that any material projecting beyond the front or rear is indicated by the red flag during day and a red light after day-light hours.

17.7 The driver shall not allow any unauthorized person to ride on the vehicle. He shall also not allow more than the authorised number of persons to ride on the vehicle.

18.0 TESTING OF BRAKES:

18.1 Brakes of every truck, tipper and any other wheeled trackless machine shall be tested at least once in two weeks, in a manner as indicated below:

(a) **SERVICE BRAKE TEST :** The brake shall be tested as specified by the manufacturer of the vehicle or on a specified gradient and speed when the vehicle is fully loaded. The vehicle should stop within a distance as specified by the OEM when the brake is applied, which shall be obtained from the manufacturer of the vehicle.

(b) **PARKING BRAKE TEST :** The parking brake shall be capable to hold the vehicle for a period of at least ten minutes when it is fully loaded and placed at the maximum gradient of roadway on which it is permitted to ply.

18.2 A record of every such test carried on every dumper/truck/tipper/other mobile HEMM shall be kept maintained in a bound paged book which shall be signed by the person carrying out the tests and shall be countersigned by the engineer and the manager. In case any defect in braking system is observed in any equipment/HEMM, such equipment/HEMM shall be taken off from operation and record thereof shall be kept maintained.

18.3 All of the above procedure and precautionary measures regarding i.e. testing of brakes including service brake, retard brake, parking brake and steering shall comply the provisions as stipulated in DGMS Technical Circular Nos.36/1972, 03/1981 and 04/2012 i.e Serice brake, Retard brake, parking brake and steering shall be tested with accelerating the engine to 1400 RPM, 1300RPM, 1200 RPM and 1000 RPM respectively.

19.0 PROTECTION OF WORKERS AGAINST NOISE & VIBRATION:

19.1 Suitable steps shall be taken by all appropriate means to reduce the exposure of workers to any excessive noise and vibration. Guidelines given in DGMS (Tech.) Circular No.18 of 1975 may be followed.

20.0 CODE OF SAFE WORK PRACTICES:

20.1 A suitable 'Code of Traffic Rules & Safe Work Procedures' for regulating the movement of Heavy Earth Moving Machinery, trucks, tippers and other wheeled trackless machinery (commensurate with the capacity/size type of machines used in the mine) shall be framed and enforced immediately. Such Code of Traffic Rules should be deliberated and approved by Tri-partite Committee. A copy of traffic rules, in a language understood by them, shall be made over to all concerned, i.e., to

drivers and operators of HEMM/trucks/tippers (including those belonging to contractors), supervisors and mine officials, and to such other persons who monitor/control movement of HEMM.

20.1.1 A suitable 'Code of Practice' for prevention of injuries to persons engaged in tipping on stock piles, tipping at crusher, dumping of overburden at dump yards, at loading and unloading points etc. (commensurate with the capacity/size type of machines used in the mine) shall be framed and enforced immediately. Such Code of Practice should be deliberated and approved by Tri-partite Committee. A copy of the code of practice, in a language understood by them, shall be made over to all concerned, i.e., to dump-men, drivers and operators of HEMM/trucks/tippers (including those belonging to contractors), supervisors and mine officials, and to such other persons who monitor/control dumping/tipping operations.

21.0 DGMS(Tech) Circular (MAMID) no. 5 of 2013 regarding recommendations of 11th National Conferences on Safety in mines & DGMS(Tech) Circular (MAMID) no.8 of 2020 regarding 12th National Conferences on Safety in mines shall be strictly complied with. On or before the 20th day of February in every year, the Owner/Agent/Manager shall submit annual return in respect of the preceding calendar year ONLINE through Shram Suvidha portal and DGMS website.

22.0 Conditions while dealing soft soil: whenever, soft soil is encountered during the course of opencast mining, adequate care shall be taken to formation of benches and slopes thereat in accordance with the stipulations. Care shall also be taken while dumping such soft formations as to the likely interference on the stability aspects.

23.0 CODE OF PRACTICE FOR CONTRACTOR WORK VIS-À-VIS SAFETY

23.1 Employer's responsibilities

(a) Suitable clauses (in consistence with risk of the work allotted) shall be included in tender document (including NITs) stating how the risk arising to men & material from the mining operation / operations to be done by the contractors shall be managed.

(b) Ensure that contractors are familiar with the relevant parts of the statute, health and safety management system and are provided with copies of such documents prior to commencing work.

(c) Ensure that contractor's arrangements for health and safety management are consistent with those for the mine owner. All the rules, regulations and bye-laws as applicable to the mine owner are also applicable to the contractor. Details of the contractors' workmen should be maintained in the owner's Form-A, B, D & E Registers as per DGMS Cir No.01 of 2017. The Registers shall be kept in the mine office of the manager

(d) Ensure that contracts should preferably be of longer period (three years), so that there is adequate scope of management of safety by the contractor.

(e) Ensure that contractor's provide the machinery, operator and other staff with written safe work procedures for the work to be carried out, stating clearly the risk involved and how it is to be managed.

(f) Monitor all activities of the contractors to ensure that contractors are complying with all the requirements of statute and the system related to safety. If found non-compliant of safety laws directing the contractor to take action to comply with the requirements, and for further non-compliance, the contractor may be suitably penalized. Clause to this affect may be a part of the agreement between the employer and the contractor.

(g) Where a risk to health or safety of a person arises because of a non-compliance directing the contractor to cease work until the non-compliance is corrected.

23.2 Contractor's responsibilities

(a) Prepare written Safe Operating Procedure (SOP) for the work to be carried out, including an assessment of risk, wherever possible and safe methods to deal with it/them.

(b) Provide a copy of the SOP to the person designated by the mine owner who shall be supervising the contractor's work.

(c) Keep an up to date SOP and provide a copy of changes to a person designated by the mine owner.

(d) Ensure that all work is carried out in accordance with the Statute and SOP and for the purpose he may deploy adequate qualified and competent personnel for the purpose of carrying out the job in a safe manner.

(e) For work of a specified scope/nature, develop and provide to the mine owner a site specific code of practice.

(f) Ensure that all sub-contractors hired by him comply with the same requirement as the contractor himself and shall be liable for ensuring compliance all safety laws by the sub-contractors.

(g) All persons deployed by the contractor for working in a mine must undergo vocational training (VT), initial medical examination (IME), and periodical medical examination (PME). They should be issued cards stating the name of the contractor and the work and its validity period, indicating status of VT & IME/PME.

(h) Every person deployed by the contractor in a mine must wear safety gadgets to be provided by the contractor. If, contractor is unable to provide, owner/agent/manager of the mine shall provide the same.

(i) The contractor shall submit to DGMS returns indicating – Name of his firm, Registration number, Name and address of person heading the firm, Nature of work, type of deployment of work persons, Number of work persons deployed, how many work persons hold VT Certificate, how many work persons undergone IME and type of medical coverage given to the work persons. The return shall be submitted annually for contracts of more than one year. However, for contracts of less than one year, returns shall be submitted monthly.

23.3 Safety, Health and Welfare of Contractual Workers.

(a) The contractor shall not employ or terminate his worker without the knowledge of the mine management.

(b) Payment to contractor's workers including leave with wages shall be made through bank only.

(c) In case of non-routine type of work in the mine a Work-Permit system, outlining the precautions to be adopted, SOPs, supervision, persons responsible for the job etc., shall be adopted.

(d) Each company shall frame a safety, health and welfare policy for their contractor's workers keeping in view the requirement of Mines Act and Rules & Regulations made there-under. The details of the policy shall be included in the tender document which will be a binding clause for the contractor.

(e) Each mining company shall extend all benefits including medical facilities and payment of wages, to contractor's workers receiving injury whilst on duty. Owner, Agent and Manager shall be responsible for ensuring compliance at their respective mines.

(f) Medical facilities shall be extended to contractor workers.

23.4 Employee's responsibilities

(a) An employee must, while at work, take reasonable care for the health and safety of people who are at the employee's place of work and who may be affected by the employee's act or omissions at work.

(b) An employee must, while at work, cooperate with his or her employer or other persons so far as is necessary to enable compliance with any requirement under the act or the regulations that is imposed in the interest of health, safety and welfare of the employee or any other person.

23.5 Additional Precautions While Deploying Contractor Workers and Machineries not belonging to the Owner:

(a) Buyers' trucks shall be parked away from the mine premises and only such number of trucks shall be allowed to enter the mine which can be accommodated in the despatch yard and are due for loading during the shift, with due consideration of safety of persons engaged in loading operations.

(b) Trucks, tippers and other heavy vehicles, not belonging to management (including trucks/ tippers engaged for transport of mineral from opencast workings to Crusher/Siding, and for transport of mineral from Crusher to Siding), shall not be allowed in the mine premises without a valid pass issued by the manager or other competent person. Before the pass is issued, the engineer shall ensure the road-worthiness of such vehicles.

(c) In order to check entry of unauthorized trucks, tippers and other vehicles in mine premises, properly manned check gate(s) at the mine entrance(s) shall be set up, where record of entry and exit of each vehicle shall be maintained.

(d) At the check gate(s), driving license of the drivers shall also be checked for eliminating the possibility of unlicensed persons driving the vehicles. Entry of unauthorized persons shall also be checked & controlled at such check gate(s) which shall be manned suitably for the purpose.

(e) Persons engaged through contractors in any work within the mine premises shall be imparted relevant training and other job-related briefings, and the drivers/operators of HEMM/trucks/tippers/vehicles belonging to contractors shall additionally been explained the salient provisions of "traffic rules".

24.0 MISCELLANEOUS:

24.1 Separate stock yards shall be maintained for dumping and despatch of minerals and it shall be ensured that despatch of minerals is not carried out from the stock yard where dumping is under progress.

24.2 No work whatsoever shall be done where provisions of Regulation 127 of the Metalliferous Mines Regulations, 1961, are attracted due to the presence of river, jore or any nallah in the vicinity. The entire ground lying within 15m of such river, nallah or jore shall be filled up and consolidated and raised to a RL which is at least 3m above the known highest flood level of the river/nallah/jore.

24.3 Garland drains of adequate size shall be provided on the surface on the periphery of the opencast workings to divert rain water from flowing down the slopes. The drains shall preferably be made impervious by plastering of floor and sides to minimize seepage of water through the strata.

24.4 The layout of the workshop for maintenance of HEMM and other equipment shall be as per requirement mentioned in the DG's Circular No.8 of 2003. All the relevant DGMS circulars issued from time to time shall be strictly followed.

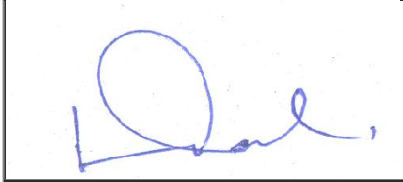
24.5 The methodology mentioned in DGMS(Tech) Circular No. 2 of 2020 regarding guidelines for systematic monitoring of slopes shall be strictly complied with.

25.0 In the event of any change in the circumstances connected with this permission which is likely to endanger the life of persons employed in the mine or the mine, the mining operations for which this permission has been granted shall be stopped forthwith and intimation thereof shall be sent to this Directorate. The said mining operation shall not be resumed without express and fresh permission in writing from this Directorate.

26.0 If at any time any one of the conditions, subject to which this permission has been granted, is violated or not complied with, this permission shall be deemed to have been revoked with immediate effect.

27.0 This permission may be amended or withdrawn at any time if considered necessary in the interest of safety and is being issued under Regulation 106(2)(b) of the Metalliferous Mines Regulations, 1961 only without prejudice to any other provisions of law which may be or may become applicable at any time.

28.0 This permission is valid for a period of **one (01) year** from the date of issue of this letter or up to the validity of lease period whichever is earlier.

Your Faithfully

K. MONDAL (DIRECTOR - BHUBANESHWAR REGION 1)
THIS IS A SYSTEM GENERATED DOCUMENT, DOES NOT REQUIRE ANY SIGNATURE.