

JOINT COMMITTEE REPORT

In

National Green Tribunal (Special Bench)

**Order dated 28th March 2022 in Appeal No. 06/2019 (CZ) (I.A.
No. 24/2019)**

In the matter of

Budhsen Rathour

Vs

Union of India & Ors.

Committee members:

1. Mrs Pragti Verma, Sub Divisional Magistrate(SDM), Sohagpur, Dist. Shahdol (M.P.) (Representative of the Collector ,Dist-Shahdol)
2. Sh. Sunil Kumar Meena, Scientist 'D', CPCB, Regional Directorate, Bhopal(MP)
3. Sh. Sanjeev Kumar Mehra, Regional Officer, MPPCB, Shahdol (M.P)



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S. No.	Annexure No.	Particulars
1.	Annexure-I	Copy of the Hon'ble NGT Order dated 28.3.2022 in Appeal no. 6 of 2019(CZ)
2.	Annexure-II	Copy of the letter of nomination of committee members
3.	Annexure-III	Copy of the EC expansion dt 11.1.2019
4.	Annexure-IV	Copy of the Consent to Establish (CTE) after EC-expansion
5.	Annexure-V	Copy of the Consent to Operate (CTO) after EC-expansion
6.	Annexure-VI	Copy of the purchase order dt 14.1.2022 for truck mounted mist fog machine
7.	Annexure-VII	Copy of the EC compliance report of ICFRE, Dehradun (2019)
8.	Annexure-VIII	Copy of the work order dt 9.04.2022 of re-carpeting of PWD road with 5 years comprehensive maintenance
9.	Annexure-IX	Copy of the Sic monthly (Oct 2021-March 2022) compliance report submitted by Unit to MoEFCC.
10.	Annexure-X	Copy of the analysis report of AAQ, Noise level & water quality
11.	Annexure-XI	Copy of the communication letter with concern authorities
12.	Annexure-XII	Copy of the submission made by the villagers
13.	Annexure-XIII	Copy of the dispatch comparative of 4 years
14.	Annexure-XIV	Copy of the Municipal Council letter & analysis report of PHED
15.	Annexure-XV	Copy of the MPPCB analysis report of filtration plant of Municipal Council, Shahdol
16.	Annexure-XVI	Copy of the letter of Block Medical Officer of CHC, Burhar, Nearer village Grampanchayat & PHE dept. Shahdol
17.	Annexure-XVII	Copy of the field photographs

Joint Committee Report

Hon'ble National Green Tribunal, Special Bench vide its order dated 28.03.2022 in Review Application No. 6 of 2019 (CZ) in the matter of Budhsen Rathour Vs Union of India & Ors has directed as:

"Accordingly, we constitute a joint Committee comprising CPCB, State PCB and District Magistrate to ascertain status of compliance of conditions for expansion and impact of the project on the environment and people in the area by undertaking site visit and considering the view point of all stakeholders, including the inhabitants of the area. State PCB will be the nodal agency for compliance and coordination. We permit any stakeholder to represent to the Committee through the State PCB within one month from today."

Copy of the order is enclosed as **Annexure-I**.

In compliance of the order a joint committee of following officers was constituted:

1. Mrs Pragti Verma, Sub Divisional Magistrate(SDM), Sohagpur, Dist. Shahdol (M.P.) (Representative of the Collector ,Dist- Shahdol)
2. Sh. Sunil Kumar Meena, Scientist 'D', CPCB, Regional Directorate, Bhopal(MP)
3. Sh. Sanjeev Kumar Mehra, Regional Officer, MPPCB, Shahdol (M.P)

The copy of letter of nominations is enclosed as **Annexure-II**.



1.0 Terms of references (TOR) of the committee in light of the order:

To ascertain status of compliance of conditions for expansion and impact of the project on the environment and people in the area by undertaking site visit and considering the view point of all stakeholders, including the inhabitants of the area, following TOR were defined:

- i. Verification of the present compliance status of Environmental Clearance (EC) conditions stipulated under EC expansion letter dated 11th January 2019 for expansion from 0.585MTPA to 0.819MTPA of M/s South Eastern Coalfields Limited, Khairaha underground Coal Mining Project
- ii. Study the impact of the project on the environment by carrying out Ambient Air Quality (AAQ), Water Quality & Noise level monitoring
- iii. Study the impact of the project on the people in the area w.r.t. health, noise, road transportation, road accident, dust pollution, water quality etc.

Committee members have carried out 04 visits of the project site during May & June 2022 months. The details are as below:

S.No.	Date of visit	Activities taken up by the members
1.	9 th May 2022	- Site visit to identify the monitoring locations of Ambient Air Quality (AAQ), Noise level & Water Quality
2.	20 th -21 st May 2022 27 th -28 th May 2022	- Monitoring of the AAQ & Noise level was carried out at identified locations for 2 days with a gap of 7days. - Water sampling was carried out on 21 st May 2022

3.	23 rd & 24 th June 2022	<ul style="list-style-type: none"> - Discussion with the nearby inhabitants of the area viz. Khannath, Khairaha, Chirhiti village & others. - Discussion with PHED dept, Health dept officials to take their viewpoint of the impact on the water quality & health
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2.0 Brief on the Khairaha Underground mining of M/s SECL, Sohagpur

The fully mechanised underground mining of M/s SECL at Village Khairaha, Sohagpur established in 513.50Ha lease area at (longitude 81°26'48' & 81°28'16' E and latitude 23°08'08' & 23°10'23' N) held its public hearing on 30th October 2003 and obtained its environmental clearance (EC) on 28th July 2005 for production capacity of 0.585MTPA. The mine started its operation on 26th March 2012 after obtaining Consent to Operate from State Pollution Control Board on 12th October 2011.

Further, unit has obtained EC for expansion on 11th January 2019 with conditions for one year to expand production from 0.585MTPA to 0.819MTPA i.e. 40% of the earlier capacity. On compliance of the conditions the EC was extended for 30 years on 10th January 2020. The Consent to Operate for expansion is valid upto 30.12.2022. Copy of the EC expansion & Consent to Operate is enclosed as **Annexure-III**.

Presently, there are 02 workable seams i.e. VI(B) & VII(Top), the depth of seams are 77-137meters & 52-107meters respectively. The present average working depth & height are 91m & 3m respectively. The thickness of the seam is 2.5m to 4.72m. As per estimation, 14



years is the balance life of mine with balance reserve 11.091 Million Ton. The grade of coal is G-7 & G-8 with average ash content of 25%. Presently, mine is under development phase. Mining operation is being carried out at VI-B Seam (B-7 Panel) with Continuous Miner (CM) Set. Continuous Miner set comprises 01 CM Machine, 02 Shuttle Cars along with Feeder Breaker and Twin Bolter for support of the mine. Based on Geological characteristic of various seams encountered in the lease hold area (seam thickness, depth of seam, strata condition, dip of seam and its extent, presence of fault, water seepage etc.), the mine has been planned to be worked out on Board & Pillar method by deploying Continuous Miner Package for main dip development. The excavated coal transported from underground mine. The coal from UG is transported from face to surface through Conveyor Belt. At the face the coal is being cut and loaded by CM into shuttle car which carries coal to feeder breaker and feeder breaker(-200mm) discharges coal onto the gate belt conveyor and with the help of a series of belt conveyor the coal is transported up to the surface bunker to surface via covered conveyor belts. Here 04 bunker of 150 T capacity each are provided to handle the coal. The coal from Coal bunker to Burhar railway siding (14Kms from the mine) transported via road by tarpaulin/green net covered trucks.

It is pertinent to mention that there are 07 working mines (Underground (UG)- 04, Open cast (OC) -02, High wall (Mixed)-01) in about 16KMs radius of Khairaha mine. Mines viz. Damni, Rajendra & Khairaha uses the same road network of 14KMs length to transport their mined coal to Budhar railway siding. Out of this 14KMs road length, about 03 KMs road length is constructed by Public Work Department which is maintained by the mine management itself. The details of the 7 mines are as tabulated below:

S. No.	Name of the mine	OC/UG	Peak Production Capacity (MTPA)	ML area (Ha)	Life of Mine (Years)
1	Khairaha	UG	0.819	472.065	17
2	Rajendra	UG	0.625	590	14
3	Bangwar	UG	0.65	496.647	20
4	Damni UG	UG	0.48	335	16
5	Amlai OC Sec B	OC	2.025	190.995	6
6	Dhanpuri OC	OC	2.725	1075.78	3
7	Sharda Highwall	Mixed	0.85	871.205	12
TOTAL			8.174	4031.692	

3.0 Compliance status of the Environmental Clearance conditions

M/s Khairaha Underground Coal Mining Project obtained its Environmental Clearance (EC)-expansion from 0.585MTPA to 0.819MTPA on 11th January 2019. The compliance status of EC-expansion conditions are as tabulated below:

Specific Conditions

S.No.	Condition	Compliance status
1.	The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31 st December, 2019.	Complied , One season data has been collected for the period April'2019 to June'19 through Central Mine Planning And Design Institute Limited (CMPDI) and submitted for EAC consideration. Later, EAC accorded EC extension for 30 years on 10 th January 2020. Copy of the EC extension dated 10.1.2020 is enclosed as Annexure-IV .
2.	The project proponent shall obtain Consent to establish from the State Pollution Control Board for capacity of 0.819 MTPA prior to commencement of the increased production.	Complied , CTE had granted vide CTE no. 49416, Validity: 30/11/2019. Copy of the CTE is enclosed as Annexure-V .
3.	Transportation of coal from face to coal heap shall be carried out by belt conveyor. Further, the coal transportation from coal heap to Coal Handling Plant shall be carried out through covered trucks.	Complying , Coal transportation from UG to Surface is being done by covered conveyor belt fitted with water sprinkler and further transportation from mine to railway siding and for road sales is being done through tarpaulin/green net covered trucks.

4. Mitigating measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.

Complying, 14 nos. of water sprinklers have been installed at coal stock yard and one mobile tanker of 5 KL capacity is provided for dust suppression at road in a regular manner.
 Apart from this one exclusive truck mounted mist fog machine is being procured for Rajendra and Khairaha UG Mine for water sprinkling at coal transportation road. Copy of the purchase order dated 14.1.2022 is enclosed as **Annexure-VI**.
 A proposal for construction of 12 feet high wind breaking wall along the coal stock yard is also under process.

5. Sufficient coal pillars shall be left un-extracted around the air shaft (within the subsidence influence area) to protect from any damage from subsidence, if any.

Being compiled, Three inclines have been pushed from centre of the property to reach the coal seams; out of which incline 1 and 2 are air intake drifts whereas incline number 3 is air return drift. The details are as:

S. No	Incline	Purpose	Dimension (width, height gradient & length)
1.	Incline No.1	Coal transport & travelling, Main Intake airway	4.8 m x 3 m, 1 in 4.5, Total length-490 m.
2.	Incline No.2	Material transport, Main Intake airway	4.8 m x 3 m, 1 in 4.5, Total length-490 m.
3.	Incline No.3	Main Return airway	4.8 m x 3 m, 1 in 4.5, Total length-490 m.

		As per the DGMS norms, all these drifts shall remain during depillaring stage. These shall be provided with sufficient pillars to safeguard the structure as per the DGMS norms and also as per pillar designing done by CMPDI for stability. The condition will be complied during de-pillaring stage.
6.	Solid barrier shall be left below the roads falling within the block to avoid any damage to the roads and no depillaring operation shall be carried out below the township/colony.	Being compiled, At present the mine is in development stage. Project proponent is committed that during depillaring sufficient barrier coal pillars shall be left unextracted under and around Road and Township / Colony to protect from any damage from subsidence.
7.	Depression due to subsidence resulting in water accumulating within the low-lying areas shall be filled up or drained out by cutting drains.	Being compiled, At present the mine is in development stage. As per the Project Proponent, they are committed to comply condition during depillaring (in 2023-24), depression due to subsidence will filled and accumulated water will be drained out by cutting drains.
8.	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings should be continued till movement cases completely. In case of observation of any high	Complying, Presentably, during development subsidence monitoring is being done by visual inspection. A committee of four officials involving Colliery Manager, Khairaha UG mine, Safety Officer Khairaha UG mine, Surveyor Khairaha UG mine and Sub-ordinate Engineer (Civil) Khairaha Sub Area has been constituted by the Dy. GM(M)/ Sub Area Manager, Rajendra Sub Area <i>vide</i> its office order dated 10-10-2019 for monitoring and reporting of

	<p>rate of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clay soil/suitable materials.</p>	<p>subsidence within the mine lease- hold area/ mine boundary of Khairaha UG.</p>
<p>9.</p>	<p>Garland Surface drains (Size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rain fall and maximum discharge in the area adjoining the mine sites. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.</p>	<p>Complying, The mine sump water is drained through the pucca RCC catch/garland drains and passed through the Settling Tanks and the clean water is then treated in the newly established mine water filter plant of 15000 Gallon/hr capacity. After treatment the treated water is then supplied to nearby Khannath village for domestic use. For further improvement in siltation, required amount of alum dosing is suggested. Sump capacity has designed and allowed proper settling of silt and sediment materials and provided adequate number of pumps to pump out the UG mine sump water to the surface area through surface settling tanks, the clean water is partly used for mining operations, dust suppression, plantation activities, washings, etc. a part of the total amount is supplied to Khannath village and rest of the water is discharged to Baisaha Nala for irrigation purpose to the villagers nearby ML area, further this Baisaha Nala meets to the Sarfa nalla from where the mine</p>



of

		water gets stored in Sarfa dam for further distribution to Shahdol Town after treatment in Water treatment Plant operated by Municipal Council, Shahdol. A total of 5 underground mine sumps exist in the UG.
10.	Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.	Complying , Installed capacity of 04 pumps is 10500 KLD. As per the assessment of the CMPDI, the seepage from mine working is estimated to be 7000 KLD. The peak rainfall in an area of 11.432 ha (Mine area) is estimated to be 540 KLD. Thus it is expected that total water generation will be 7540 KLD. Thus proponent has installed adequate capacity pumps to pump out the rain water during peak rain fall.
11.	The company shall obtain approval of CGWA for use of groundwater for mining operations	Complied , the mine has been granted with the No Objection Certificate from the CGWA vide NOC NO. CGWA/NOC/MIN/ORIG/2021/13751 that is

	at its enhanced capacity of 0.819 MTPA.	valid from 16.11.2021 to 15.11.2023
12.	Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured	Complying , The project proponent carrying out regular health check-up of the mine employees. 89, 92 & 80 medical examinations of departmental employees were conducted in FY 2019-20, 2020-21 & 2021-22 respectively. Also vocational training was imparted to 39 contractual & departmental employees on each FY since 2019. And PP is providing PPEs for safety assurance.
13.	A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRE /NEERI/IIT or any other expert agency identified by the Ministry.	Complied , The assessment of EC compliance has been conducted by ICFRE, Dehradun during 30.10.2019 to 05.11.2019. Copy of the report is enclosed as Annexure-VII . It is applicable for 3 years, next due date is on November for which proposal is in process

Generic condition

(A) Mining

CONDITION		COMPLIANCE STATUS
S. No.		

1.	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there- under as applicable.	Complying. Mine is carried out as per applicable provisions of Mines Act 1952 & subordinate legislations.
2.	No change in mining method i.e. UG to OC, calendar Programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).	Agreed to comply. This mine is working with underground method; there is no any change in mining method and scope of work. In case of any change, the prior approval shall be taken from MoEFCC.
3.	Mining shall be carried out as per the approved mining plan (including mine closure plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General of Mines Safety (DGMS).	Being Complied, Mine working is being done as per approved mine plan (including mine closure plan) and DGMS mining rules.
4.	Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.	Being Complied. Environmental conditions in the underground are ergonomic and air breathable with adequate illumination. Ventilation survey, illumination survey, noise survey, gas analysis of underground workings are carried out as per statue and records maintained by Safety Officer as per procedures.
5.	No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The	Agreed to comply, No mining activity shall be carried out in forest land without taking prior Forest Clearance. No mining activity should be carried out in forest

Scheduled tribes and other Traditional Forest Dwellers (Recognition of forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.

area until or unless the area is cleared under Forest Act 1980, as per the project proponent around 0.5 MT coal is getting blocked in these areas which proponent is committed for non-exploitation.

Based on Surface Plan/Survey of India Topo Sheet and as per the physical verification, there are 5 forestry patches (Total area: 6.825 ha) have been found in the ML area:

Forest Patch-1: It is the largest forest patch covering an area of 5.094 ha which is located towards NW side of lease adjacent to the Sarpha Nala. Part of the area is under cultivation by the local villagers and remaining part of the area is having sparse vegetation.

Forest Patch-2: It is located towards Northern side in an area of 0.1 ha within the lease area.

Forest Patch-3: It is located towards Western side in an area of 0.332 ha within the lease area.

Forest Patch-4: It is located towards SW side in an area of 0.166 ha, within the lease area.

Forest Patch-5: It is located towards SE side in an area of 1.133 ha within the lease area.

The PP has informed that these 5 forest patches with a total area of 6.825 ha have been excluded from the present land use of the mining and therefore no coal mining will be conducted from

		below the area of these forest patches
6.	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.	Being complied , Two nos. of solar light at mine office block are installed. Further plan is underway to install 04 more such light in different places in mine site in future.

(B) Land Reclamation and Water Conservation

S. N	CONDITION	COMPLIANCE STATUS
1.	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50000 scale or as notified by Ministry of Environment, Forest and Climate Change (MoEFCC) from time to time shall be submitted to MoEFCC/ Regional Office (RO).	Being Complied , Digital Processing of lease area using remote sensing technique is being done.
2.	Post-mining land be rendered usable for agriculture/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for preparation of Mine Closure Plan, issued by the Ministry of coal dated 27 August 2009 and	Agreed to Comply , The condition will be complied as per guidelines.

	subsequent amendments.	
3.	<p>Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.</p>	<p>Complying, Presentably, during development subsidence monitoring is being done by visual inspection. A committee of four officials involving Colliery Manager, Khairaha UG mine, Safety Officer Khairaha UG mine, Surveyor Khairaha UG mine and Sub-ordinate Engineer (Civil) Khairaha Sub Area has been constituted by the Dy. GM(M)/ Sub Area Manager, Rajendra Sub Area <i>vide</i> its office order dated 10-10-2019 for monitoring and reporting of subsidence within the mine lease- hold area/ mine boundary of Khairaha UG.</p> <p>Project proponent is advised to monitor the subsidence movement on the surface and around the various areas and its impact on natural drainage pattern, water body and road structure, should be continue as per the prevailing practices.</p> <p>Special attention must be given during depillaring resulting into cracks and fissures developed if any, should be effectively plugged</p>



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		with ballast and clay soil etc.
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4.	Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3 rd November 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.	Not applicable , Since it is an underground coal mine, there is no scope of fly ash filling because depillaring is proposed by Caving. There is no external Dump in the ML area. However, As informed by PP, the overburden waste generated during the initial years of operations are stored in and around the mine entrance and it has been utilized completely as packing materials in haulage tracks.
5.	A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.	Complying , A committee of four officials involving Colliery Manager, Khairaha UG mine, Safety Officer Khairaha UG mine, Surveyor Khairaha UG mine and Sub-ordinate Engineer (Civil) Khairaha Sub Area has been constituted by the Dy. GM(M)/ Sub Area Manager, Rajendra Sub Area for monitoring and reporting of subsidence within the mine lease- hold area/ mine boundary of Khairaha UG
6.	Through inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent in	Being Complied , No such cracks or subsidence has been developed in the mining area as the mine is in the developmental stage, however to safeguard the mine from inrush of water, a team

	rush of water in the mine.	has been constituted, which should take necessary action to prevent inrush of water.
7	Native tree species shall be selected and planted over areas affected by subsidence.	Being Complied , During visit of the Khairaha UG mine, no any subsidence was observed. However, if any occurrence of subsidence in this UG mine in near future during operational phase occurs, the Project Proponent has to take up appropriate action as per EC condition of MoEF&CC by planting high root density native tree species at the affected areas.
8	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State Government to provide alternate areas for Hon'ble Supreme Court with regard to acquiring grazing land.	Complied , No grazing land involved in core zone of Khairaha UG Mine

(C) Emissions, Effluents, and waste disposal-

S. N	CONDITION	COMPLIANCE STATUS
1.	Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc. shall be carried out in critical areas prone to air pollution (with higher values of PM ₁₀ /PM _{2.5}) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.	<p>Being Complied.</p> <p>Following action were taken to control the fugitive emission:</p> <ul style="list-style-type: none">-Installed 14 fixed sprinklers along coal stock yard and entrance of the mine.- One mobile water tanker (5KL capacity) is used for dust suppression at coal transportation road- Procured 1 truck mount mist fogger machine for dust suppression on the haul road- The railway siding is barricaded with approx. 12 ft brick wall and green canopy and fix water sprinklers are installed in the siding premise.-Regular monitoring of ambient air quality is being done by CMPDIL and by MPPCB, Shahdol, in mine and in the railway siding and the values are well within prescribed norms. <p>However, it is recommended to install the height of coal siding area brick wall by Tin shed/green net to further minimize dust pollution.</p>

2.	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area in a phased manner. The green belt comprising a mix of native species shall be developed all along the major approach/coal transportation roads.	Being Complied , Greenbelt has been developed all around the bunker; coal stock yard and mine office premises through the M. P. Rajya Van Vikas Nigam, Umaria during the year 2011 by planting of 5000 nos. of both native and exotic tree species. 12000 no of plants have been planted in year 2021 along the coal transportation route for minimization of air borne dust. The survival rate was 96.7%. Further, it is recommended that PP shall ensure development of thick 3-tier greenbelt by planting more number of fruit bearing, native and Sulphur resistant plants.
3	The transportation of coal shall be carried out as per the provisions and route proposed in the approved Mining Plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.	Being Complied , The coal from the mine to railway siding transport through 14 Kms road network. Out of which approx. 3KMs road patch is developed by PWD. Rest is developed by PP. Presently, whole the road length is maintained by proponent. A work order released on 9 th April 2022 to re-carpeting of PWD road was awarded with 5 years comprehensive maintenance. Copy of the order is enclosed as Annexure-VIII . There is no any major population/village inhabit there on the road side. The speed of trucks also monitored through GPS enable system, average speed ranges from 20 to 30 KM/hr.
4.	Vehicular emissions shall be kept under	Being complied ,

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	control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centers.	-PUC certified vehicles are only deployed for coal transportation.
5.	Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt- conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.	<p>Being Complied.</p> <ul style="list-style-type: none"> -UG to surface transport through Belt conveyor. -Coal stock yard and railway siding is equipped with water sprinklers. -Railway siding is covered with brick boundary wall and green canopy. -Side cladding gantry along conveyor is provided to avoid air borne dust. -Mobile water sprinkler is deployed on road transport. -Drilling is not practiced in this mine and no crusher is installed in this mine.
6.	Coal handling plant shall be operated with effective control measures viz. bag filters/water or mist sprinkling system etc to check fugitive emissions from crushing operations, conveyor system, transfer points etc.	<p>Being Complied, At Khairaha UG the mining is being done with continuous miner with feeder breaker to size 100mm to oversized coal. The continuous miner works with mist spray system to minimize dust emission.</p> <p>No CHP is there at the mine. For controlling dust emission from conveyor system, belt is completely covered and provided with mist sprinkler system.</p>

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7. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

Complying. No ground water is used for mining operation. The seepage through underground workings is pumped into the settling tanks. The water is reused for sprinkling and in underground operations after the settling.

8.

Catch/garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps &

-OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. -The drains/ponds so constructed shall be regularly desilted particularly before onset of monsoon and maintained properly.

-Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilized for dust suppression measures and green belt development.

-Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the

Being Complied.

-Catch/garland drains and siltation pond of appropriate size are constructed around the mine working and coal heaps.

- This is a UG mine, therefore the conditions of OB is not applicable for this mine.

- Catch/garland drains and siltation pond of appropriate size are constructed around the mine working and coal heaps and regular maintenance and desilting is being done.

- Sump capacity with adequate capacity is provide (underground capacity- 20400 cum/day, peak sudden rainfall water generation - 540 Cum).

- Mine is underground, this condition is not applicable.

dump and adjacent
field/habitation/water bodies.

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Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap shall be installed and maintained fully functional with effluents discharge adhering to the norms. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste.

Being Complied, The mine sump water is drained through the pucca RCC catch/garland drains and passed through the Settling Tanks and the clean water is then treated in the newly established mine water filter plant of 15000 Gallon/hr capacity. After treatment the treated water is then supplied to nearby Khannath village for domestic use. For further improvement in siltation, required amount of alum dosing is suggested. Sump capacity has designed and allowed proper settling of silt and sediment materials and provided adequate number of pumps to pump out the UG mine sump water to the surface area through surface settling tanks, the clean water is partly used for mining operations, dust suppression, plantation activities, washings, etc. a part of the total amount is supplied to Khannath village and rest of the water is discharged to Baisaha Nala for irrigation purpose to the villagers nearby ML area, further this Baisaha Nala meets to the Sarfa nalla from where the mine water gets stored in Sarfa dam for further distribution to Shahdol Town after treatment in Water treatment Plant operated by Municipal Council, Shahdol. A total of 5 underground mine sumps exist in the UG.

10	<p>Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.</p>	<p>Being Complied, A ground water recharge structure has been created at mines office of Khairaha project with a total surface area of 125sq.m for collection of rain water. The collected rain water is passed through a recharge pit and was found in working condition.</p> <p>The mine sump water is drained through the pucca RCC catch/garland drains and passed through the Settling Tanks and the clean water is then treated in the newly established mine water filter plant of 15000 GPH capacity. After treatment the treated water is then supplied to nearby Khannath village for domestic use, rest of the water after industrial use is discharged to the Sarfa nalla from where the mine water gets stored in Sarfa dam for further distribution to Shahdol Town.</p> <p>It is further recommended that more number of ground water recharge pits/ponds shall be constructed, reclaimed in the village areas where mined water is not being supplied or provided.</p>
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(D) ILLUMINATION, NOISE & VIBRATION-

S. N	CONDITION	COMPLIANCE STATUS
1.	Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in underground mining operations, operation of HEMM, etc. shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.	Being Complied, Continuous miner is deployed with feeder breakers in underground mining, which do not produce noise upto 85 dB(A) in work environment. However, The worker engaged in UG mining operations is equipped with PPE like safety goggle, Dust mask and Earmuff/earplugs in conformity with the prescribed norms in this regard. During INITIAL/PERIODICAL MEDICAL EXAMINATION (IME/PME) each worker is subjected for audiometric test. No such cases of Noise-Induced Hearing Loss (NIHL) are reported.
2.	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in the regard shall be submitted to the Ministry/RO on six-monthly basis.	Being Complied, Noise level monitoring done at various vulnerable points and reported noise levels less than 85 dB (A). However, workers have been provided sufficient protecting measures such as ear plugs, muffs in conformity with the prescribed norms in this regard.

3.	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.	Not applicable. No blasting is required, Continuous miner is coal cutting technology.
4.	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in the regard shall be submitted to the Ministry/RO on six-monthly basis.	Being complied: The monitoring reports submitted biannually. Copy of the recent six monthly reports (Oct 2021-March 2022) is enclosed as Annexure-IX.

(E)Occupational health & safety-

S. N	CONDITION	COMPLIANCE STATUS
1.	Adequate illumination shall be ensured in all mine locations (as per DGMS standards and monitored).	Being Complied, Arrangement for adequate illumination in mine locations as per DGMS standards is made and its monitoring is also being done.
2.	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the workers engaged in the project and maintain records accordingly as per the provisions of the Mine Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the	Being Complied, Health survey for workers by conducting IME/PME as per the provisions of Mines Rule and DGMS circulars is being done. 89, 92 & 80 medical examinations of departmental employees were conducted in FY 2019-20, 2020-21 & 2021-22 respectively. As informed, No case of Pneumoconiosis and <i>NIHL</i> has been reported yet.

	workers identified from workforce engaged in the active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.	
3.	Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.	Being Complied, Arrangement for adequate illumination in mine locations as per DGMS standards is made and its monitoring is also being done.
4.	Skill training as per safety norms specified by DGMS shall be provided to all workman including the outsourcing employees to ensure high safety standards in mines.	Being Complied, Regular training of the workforce is being done and it's a continual process.
5.	Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.	Being Complied, 02 no. water filters installed for supply of drinking water.

6.	<p>Implementation of Action Plan on the issues raised during the public hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan Submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/or the national R&R Policy/R&R Policy of the State Government, as applicable.</p>	<p>Being Complied, Various issues raised during public hearing are being complied. These include monetary provisions towards various measures for containment of air/dust pollution like provision of mobile water tanker, plantations and necessary arrangement for education, health, and road construction. These also include regular monitoring of air and water quality through agencies like CMPDIL and M. P. Pollution Control Board. Land compensation to the 27 private land owners from nearby Chirihiti and Khairaha villages amounting to a total of Rs.2175250/ have been made for their 11.432 ha of private land by 31.07.2010. This land has been used for establishment of infrastructures like office premises and approach road to the mine. Apart from land compensation, 05 PAFs belonging to the Khairaha village have also been provided employment as per the R&R Policy of the CIL.</p>
7.	<p>The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA.11(M) dated 29th October, 2014, titled impact of mining activities on habitations- issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are</p>	<p>Being Complied, Measures are being taken for minimizing the impact of mining activity on habitation. These include measures for containment of air/dust pollution like provision of mobile water tanker, raising of plantations, monitoring of air and water quality and construction of blacktop road.</p>

surrounded by the mine lease area.

(F) ECOSYSTEM AND BIODIVERSITY CONSERVATION-

S. N	CONDITION	COMPLIANCE STATUS
1.	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any spotted/reported in the study area. The Action plan in this regard, if any shall be prepared and implemented in consultation with the State Forest and Wildlife Department.	Being Complied , Award of work order issued to the Director, Tropical Forest Research Institute, Jabalpur for "Study of Flora and Fauna and preparation of Wildlife Conservation Plan including Endangered species if any and Comprehensive study of impact of mining on the Wildlife for Rajendra UG and Damini UG mine of Sohagpur Area of SECL" (vide Letter No. SECL/SGP/ENVT/18/771 dated 13th December 2018.
2.	Greenbelt consisting of three tier plantation of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt comprising of a mix of native species shall be developed all along the major approach roads/coal transportation roads.	Being Complied , Greenbelt has been developed all around the bunker; coal stock yard and mine office premises through the M. P. Rajya Van Vikas Nigam, Umari during the year 2011 by planting of 5000 nos. of both native and exotic tree species. 12000 no of plants have been planted in year 2021 along the coal transportation route for minimization of air borne dust. The survival rate was 96.7%. Further, it is recommended that PP shall ensure development of thick 3-tier greenbelt by planting more number of fruit bearing, native and Sulphur resistant plants.

(G)PUBLIC HEARING, R&R AND CSR-

S. N	CONDITION	COMPLIANCE STATUS
1.	Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.	Being Complied , Various issues raised during public hearing are being complied. These include monetary provisions towards various measures for containment of air/dust pollution like provision of mobile water tanker, plantations and necessary arrangement for education, health, and road construction. These also include regular monitoring of air and water quality through agencies like CMPDIL and M. P. Pollution Control Board. Land compensation to the 27 private land owners from nearby Chirihiti and Khairaha villages amounting to a total of Rs.2175250/ have been made for their 11.432 ha of private land by 31.07.2010. This land has been used for establishment of infrastructures like office premises and approach road to the mine. Apart from land compensation, 05 PAFs belonging to the Khairaha village have also been provided Employment as per the R&R Policy of the CIL.

2.	<p>The project proponent shall ensure the expenditure towards socio-economic development in and around the mine, in every financial year as per the corporate social responsibility policy as per the provision under section 135 of the Companies Act, 2013.</p>	<p>Being complied. As per CSR policy of company, the work related to CSR is being done in nearby villages of project. Recently, One Mine water filter plant is established in the mine premise from which water is being supplied to nearby villagers. Other CSR Activities are also being done at Area level for the betterment of socio-economic conditions or surrounding area.</p> <p>It is recommended that PP need to take more CSR activities related to groundwater recharge structures, pond construction, reclamation of ponds and health facilities may be taken up.</p>
3.	<p>The project proponent shall follow the mitigation measures provided in the Ministry's OM No. Z-11013/5712014-IA.11 (M) dated 29 October, 2014 titled 'Impact of mining activities on habitation issues related to the mining projects wherein habitations and villages are the part of mines lease areas or habitations and villages are surrounded by the mine lease area'.</p>	<p>Being Complied. Various measures have been taken for containment of air/dust pollution like provision of mobile water tanker, plantations, construction of blacktop road for transport of coal. Regular monitoring of air and water quality through agencies like CMPDIL.</p>

4.	The project proponent shall make necessary arrangements, if grazing land is involved in core zone, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the direction of Hon'ble Supreme Court with regard to acquiring grazing land.	Not applicable , There is no any grazing land involved in core zone under the project.
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(H) CORPORATE ENVIRONMENT RESPONSIBILITIES-

S. N	CONDITION	COMPLIANCE STATUS
1.	The company shall have a well laid down environment policy duly approved by Board of Director. The environment policy should prescribe for standard operation procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environment of forest norms/conditions. Also, the company shall have a define system of reporting of non- compliances/violations of environmental norms to all Board of Director and/or	Complied, Unit has board approved corporate Environment policy.

	Shareholders/stakeholders.	
2.	The project proponent shall comply with the provisions contained in the Ministry's OM dated 1 May, 2018, as applicable, regarding Corporate Environment Responsibility.	Being complied, The activities under CER like drinking water supply to villager, rain water harvesting etc. is being done.
3.	The hierarchical system or Administrative Order of the company to deal with environment issues and for ensuring compliance with the environment clearance conditions shall be displayed on website of the Company.	Complied, Company level EC condition compliance monitoring team is constituted.
4.	A separate environment management cell both at the project and company headquarter level, with suitable qualified shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Complied. Separate environment management cell with suitable qualified person have established and functioning at project and company level.
5.	Action plan for implementing EMP and environment conditions shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted	Being complied, A separate fund for Environmental Activities (Monitoring, HW authorization, water spraying, O&M, Rainwater harvesting etc.) and implementation of EMP of the mine is approved. And this fund is not being diverted for any other purpose. Yearly progress report is being submitted to the MoEFCC regional

	for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Officer along with the Six Monthly Compliance Report.	office through 6 monthly compliance reports.
6.	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Being complied, Self-environmental audit is being done by Six monthly EC compliance and field visit, The assessment of EC compliance has been conducted by ICFRE, Dehradun during 30.10.2019 to 05.11.2019.

(I) STATUTORY OBLIGATIONS-

S. N	CONDITION	COMPLIANCE STATUS
1.	The environmental clearance shall be subject to order of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law from time to time, and as applicable to the project.	Agreed to Comply.
2.	The environmental clearance shall be subject to obtaining wildlife clearance, if applicable, from the Standing Committee of National Boards for Wildlife.	Agreed to Comply. However, only tenancy and govt. land involve covered under the project area and no any Reserve Forest, wildlife sanctuary, wildlife corridor fall with radius of 15 KM.

3. The project proponent shall obtain Consent to Establish/Operate under the Air Act, 1981 and the Water Act, 1974 from the concerned State Pollution Control Board.

Complied, CTE granted as per No. 49416, Dated-30.01.2019.

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4.	The project proponent shall obtain the necessary permission from the Central Ground Water Authority (CGWA).	Being Complied, The mine has been granted with the No Objection Certificate from the CGWA vide NOC NO. CGWA/NOC/MIN/ORIG/2021/13751 that is valid from 16.11.2021 to 15.11.2023
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(J) MONITORING OF PROJECT-

SN	CONDITION	COMPLIANCE STATUS
1.	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM ₁₀ , PM _{2.5} , SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive target in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation	<p>Being complied:</p> <p>-Air quality monitoring is being done on following stations by CMPDI on regular basis.</p> <p>-In core zone (4);</p> <ol style="list-style-type: none"> i. Main gate, ii. Lamp room, iii. Electrical substation & iv. Manager Office, <p>-In Bufferzone (4)</p> <ol style="list-style-type: none"> i. Khairaha Village, ii. Kundri village iii. Chirahti village and iv. Khanath village

	with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.	One CAAQMS station is also installed at Colony near Khairaha UG mine.
2.	Ambient air quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742(E) dated 25-09-2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/ Regional Officer and to the CPCB/SPCB.	Being complied: Monitoring of Ambient air quality in core zone is being carried out as per Coal Industry Standards notified vide GSR 742(E) dated 25-09-2000 and as amended. Monitoring data regularly submitted to MoEFCC and MPPCB with Environmental audit report. PP shall conduct AAQM for Heavy metals too.
3.	The effluent discharge (mine waste water, workshop effluent) shall be mentioned in terms of the parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25-09-2000 and as amended from time to time by the Central Pollution Control Board.	Being complied, -Quality of Mine water is being monitored as per parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25-09-2000 and as amended.

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4.	<p>The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J- 20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall be referred in this regards for its compliance.</p>	<p>Being Complied, Monthly monitoring data is being displayed at project office.</p>
5.	<p>Regular monitoring of underground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and construction new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post- monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to Ministry of Environment, Forest and Climate Change/Regional Office.</p>	<p>Being Complied, The water level monitoring is being done by series of existing well and piezometers Monitoring of 04 parameter of effluent water is being carried out every month and 24 parameters monitoring is done twice in a year. The final Monitoring Reports are being submitted to MoEFCC with the 6 monthly compliance. It is recommended to carryout periodic testing of the water supplied to the villagers.</p>

6.	Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.	Being complied.
7.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environment conditions to the Ministry of Environment, Forest and Climate Change/Regional Office. For half yearly monitoring reports, the data should be monitored for the period of April to September and October to March of FY	Being complied.
8.	The Regional Officer of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/ monitoring reports.	Agreed to Comply.



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(K) MISCELLANEOUS-

S. N	CONDITION	COMPLIANCE STATUS
1.	Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.	Being Complied. Two nos. of solar light at mine office block are installed. Further plan is underway to install 04 more such light in different places in mine site in future.
2.	The project authorities shall inform to the Regional Office regarding commencement of mining operations.	Complied.
3.	A copy of the environmental clearance shall be marked to concerned Panchayat. A copy of the same shall also be sent to the concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's Office/ Tehsildar office for information in public domain within 30 days.	Complied.

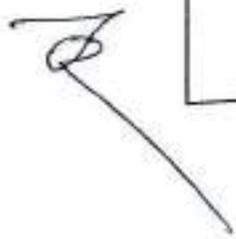
<p>4. The EC shall be uploading on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain.</p>	<p>Complied.</p>
<p>5. The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of this clearance, informing that the project has been accorded environmental clearance and a copy of the same is available with the State Pollution Control Board and also at website of the Ministry.</p>	<p>Complied.</p>

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<p>6. The environmental statement for each financial year ending 31 march in Form-V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail.</p>	<p>Being Complied.</p>
<p>7. The above condition will be enforced inter-alia, under the provisions of the Water (prevention & Control of Pollution Act, 1974 the Air (Prevention & Control of Pollution) Act, 1981 the environment(protection) Act, 1986 and the public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter.</p>	<p>Agreed to Comply.</p>

5.	The proponent shall abide by all commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be Implemented in letter and spirit.	Agreed to Comply.
6.	The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection.	Agreed to Comply.
7.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Agreed to Comply.



8.	The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Government at any point of and time, in terms of the orders dated 2 august, 2017 of Hon'ble Supreme Court in WP (Civil) No. 114/2014 in the matter of Common Cause Vs Union of India & others.	Agreed to Comply.
9.	The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & geology, in Strict compliance of the judgment of Hon'ble Supreme Court	Agreed to Comply.
10	This environment clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable and other statutory requirements.	Agreed to Comply.

Further required action by the project proponent in view of the compliance status of the EC conditions:

- i. Establish more number of Groundwater recharge structure, construct or reclaim Ponds in nearby villages where water is not being supplied.
- ii. Increase the plantation on the road side as per the EC condition.
- iii. Further raise the height of railway siding wall from 12ft to 15-20ft in total by Tin sheds.
- iv. Increase the water sprinkling frequency on the haul road to further minimise the fugitive emission.
- v. Ensure the truck are not overloaded and covered with tarpaulin to avoid fall of coal on the road that results in fugitive emission.
- vi. Place speed limit boards on suitable sites of the road network for the truck movement.
- vii. Periodically update the display board showing the details of CTO, HW authorization etc. Also translate in Hindi language for understanding of the public.
- viii. Monitor the drinking water quality of the water supplied to Khannath village.
- ix. Monitor the heavy metals in ambient & water biannually.



Project Director, Coal India, Government of India, Ministry of Coal

4.0 Impact on the Environment by the Project Expansion

To assess the post expansion i.e. 11.1.2019 impact on the environmental quality parameters viz. Ambient Air Quality, Water Quality & Noise level; it was opined to carry out environmental parameters analysis at identified locations and compare the change w.r.t. Pre-expansion level of the environmental quality.

The identified monitoring locations are as tabulated below:

S. No.	Name of monitoring station	Latitude (in degree)	Longitude (in degree)
Air Quality(Core Zone)			
1.	Mangers office	23.1596	81.4611
2.	Main gate	23.1582	81.4614
3.	Lamp room	23.1604	81.4604
4.	Electric sub station	23.1590	81.4585
Air Quality (Buffer Zone)			
5.	Chirhiti village	23.1491	81.4828
6.	Khannath Village	23.1680	81.4719
7.	Kundrai Village	23.1474	81.4624
8.	Khairaha Village	23.1374	81.4480
9.	Office Of GM, Burhar near coal siding	23.186169	81.571708
Water Quality			
1.	Mine water Discharge from plant premises	23.1599	81.4618
2.	Mine water discharge before confluence in Baisaha nala	23.161350	81.464900
3.	Up stream of Baisaha nala (near Kundari village)	23.1553	81.4672
4.	Downstream of Baisaha nala (near Kanhat village)	23.1702	81.4680
5.	Drinking water	23.1602	81.4603
Noise Level (Core Zone)			
1.	Mangers office	23.1596	81.4611

2.	Main gate	23.1582	81.4614
3.	Lamp room	23.1604	81.4604
4.	Electric sub station	23.1590	81.4585
Noise Level (Buffer Zone)			
5.	Chirhiti village	23.1491	81.4828
6.	Khannath Village	23.1680	81.4719
7.	Kundrai Village	23.1474	81.4624
8.	Khairaha Village	23.1374	81.4480
9.	Office Of GM, Burhar near coal siding	23.186169	81.571708

The ambient Air Quality (AAQ) monitoring was conducted twice during 20th May -21st May 2022 and 27th May-28th May 2022 for covering the weekly changes in the AAQ. The noise level monitoring was conducted on 20th & 27th May 2022. The water sampling was conducted on 21st May 2022. Copy of the analysis report is enclosed as **Annexure-X**.

The analysis result of the Ambient Air Quality and Noise level in Core and Buffer zone is as tabulated below:

The analysis result of the Ambient Air Quality and Noise level in Core and Buffer zone

Zone	Location	Ambient Air Quality in $\mu\text{g}/\text{m}^3$								Noise level dB(A)			
		20-21 st May 2022				27 th -28 th May 2022				20 th May 2022		27 th May 2022	
		SPM	PM ₁₀	SO ₂	NO ₂	SPM	PM ₁₀	SO ₂	NO ₂	Day	Night	Day	Night
Core	Mangers office	295	215	38	50	274	208	35	46	63.7	61.5	65.1	60.4
	Main gate	284	216	43	52	280	217	34	49	68.6	64.2	69.2	63.9
	Lamp room	345	308	38	51	341	299	33	47	73.2	69.2	73.2	69.1
	Electric sub station	245	164	36	49	236	154	31	44	64.5	62.5	65.2	61.9
Applicable standards Notification No. GSR 742(E), Dt: 25.09.2000 and Ambient Noise standards (Industrial Area)		500	250	120	120	500	250	120	120	75	70	75	70
Buffer	Chirhiti village	-	97	25	38	-	94	20	32	64.1	60.1	60.5	51.5
	Khannath Village	-	94	23	32	-	88	20	34	52.4	53	54.3	49.2
	Kundrai Village	-	89	24	31	-	87	22	29	53.1	51.5	53.4	51.1
	Khairaha Village	-	96	23	30	-	99	22	30	58.9	55.8	56.2	52.2
	Office Of GM, Burhar near coal siding	-	206	26	32	-	197	24	31	62.1	58.8	63.4	59.2
Applicable standards NAAQS, 2009 and Ambient Noise standards (Residential area)		-	100	80	80	-	100	80	80	55	45	55	45

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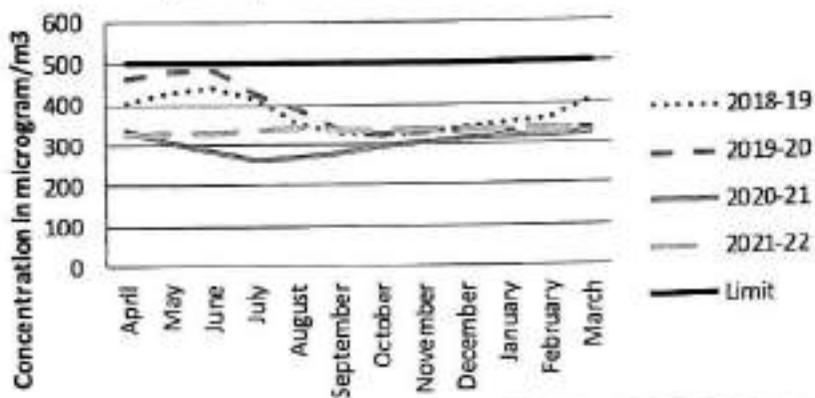
The PM₁₀ value was found slightly exceeding from the prescribed standard of 250 µg/m³ at one of the 04 locations of the core zone i.e. lamp room. The prominent wind direction is North-East. The location is situated in downwind.

The noise level was within the prescribed level in Day & Night period at Core zone; whereas it was found exceeding in buffer zone. This is majorly due to localized activities along with vehicle movement.

Further, to assess change in environmental pollutants w.r.t. the mining activities after the increase in expansion; committee opined to compare the change in concentration of pollutant from Year 2018 to 2022.

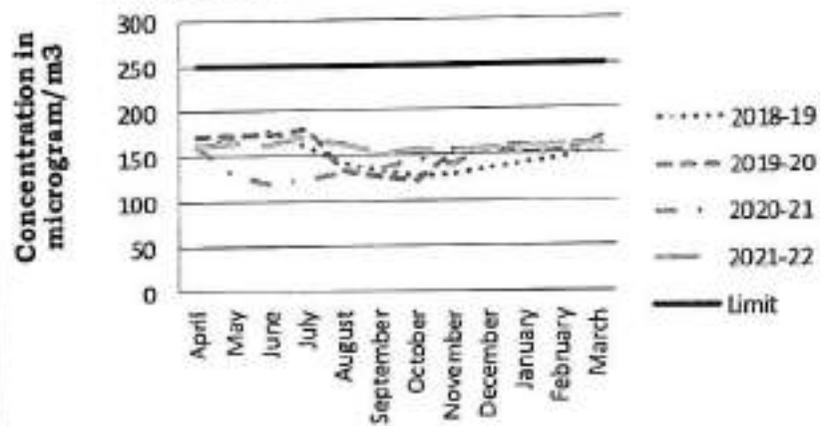
The level of Ambient Air Quality monitored by project proponent through CMPDI, Mahendragarh & Bilaspur during pre-expansion & post-expansion years was assessed and described below in graphical representation:

Change in Suspended Particulate Matter (SPM) in Core Area Since 2018



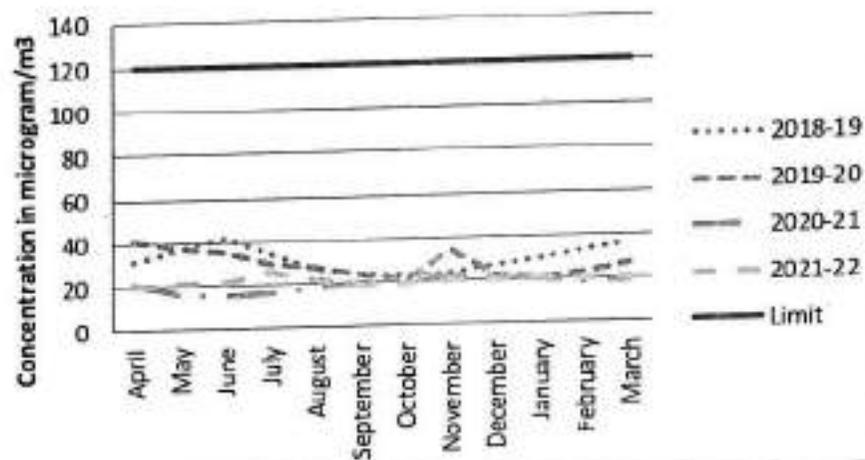
Comments: The Suspended Particulate Matters (SPM) in the Core area was always found below the prescribed limit of 500 $\mu\text{g}/\text{m}^3$. There was a dip in SPM concentration was observed in year 2020-21 w.r.t previous years that may be due to the COVID-19 restrictions. Further, the concentration in year 2021-22 was found higher than the year 2020-21 but lower than the FY 2018-19 & 2019-20.

Change in Particulate Matter (PM10) concentration in Core Area Since 2018



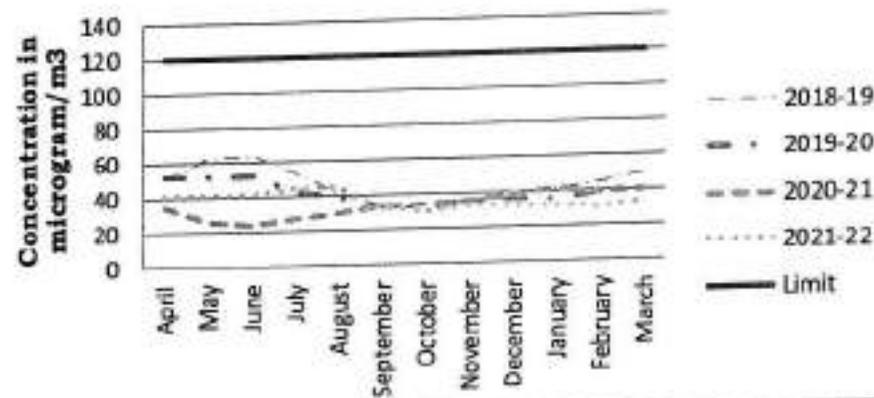
Comments: The Particulate Matters (PM10) in the Core area was always found below the prescribed limit of 250 $\mu\text{g}/\text{m}^3$. There was a dip in PM10 concentration was observed in year 2020-21 w.r.t previous years that may be due to the COVID-19 restrictions. Further, the concentration in year 2021-22 was found higher than the year 2020-21 but in line with the FY 2018-19 & 2019-20.

Change in SO₂ concentration in Core Area Since 2018

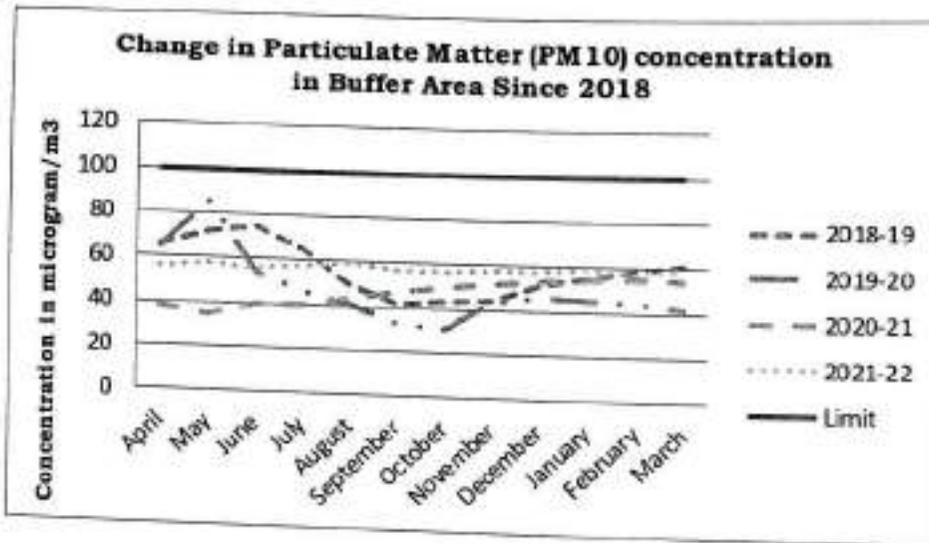


Comments: The Sulphur di Oxide concentration in the Core area was always found below the prescribed limit of 120µg/m³. As usual there was a dip in the concentration during year 2020-21 w.r.t previous years due to the COVID-19 restrictions. Further, the concentration in year 2021-22 was found higher than the year 2020-21 during May to August and then it was in line with the post 2020-21 concentration. The SO₂ concentration was lowering since 2018-19.

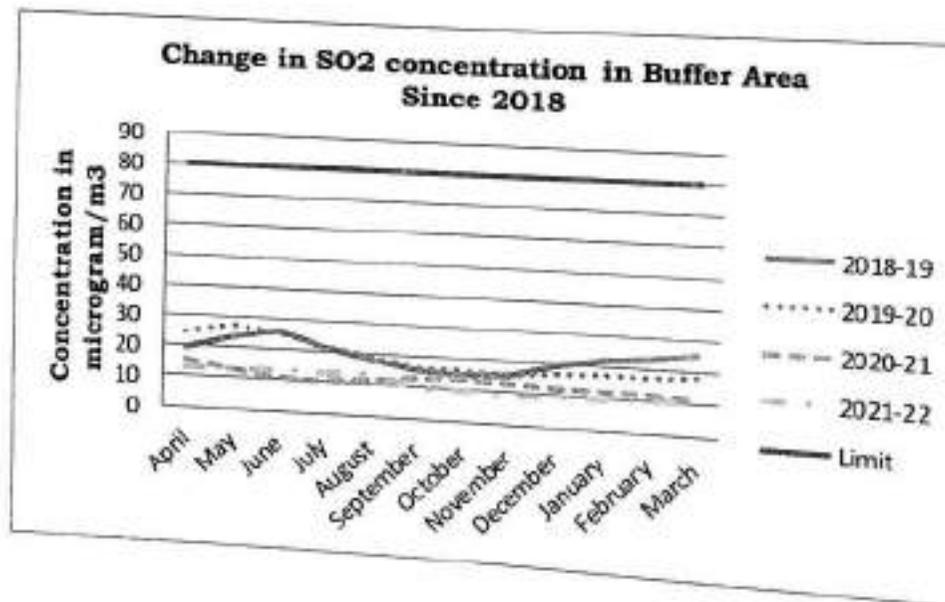
Change in NO₂ concentration in Core Area Since 2018



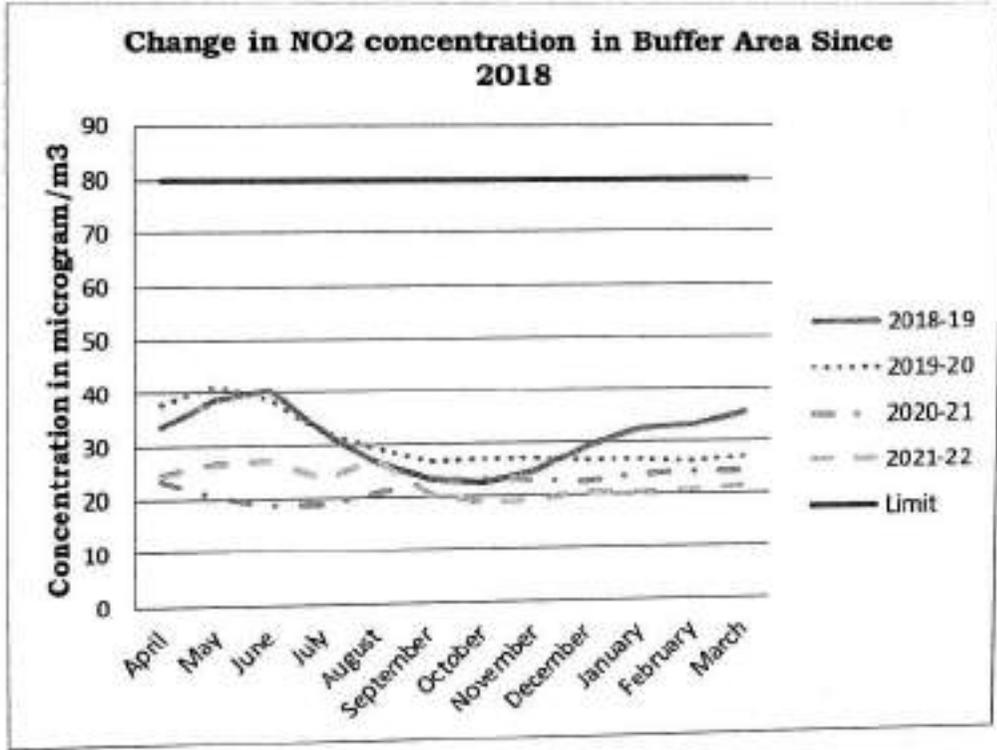
Comments: The Nitrogen di Oxide concentration in the Core area was always found below the prescribed limit of 120µg/m³. As usual there was a dip in the concentration during year 2020-21 w.r.t previous years due to the COVID-19 restrictions. Further the level was found below the levels of 2018-19 during April to August and then goes in line with the levels of 2018-19. There was no increase in levels was observed in comparison of the 2018-19 level.



Comments: The Particulate Matters (PM10) in the Buffer area was always found below the prescribed limit of 100 μ g/m³. There was a dip in PM10 concentration was observed in year 2020-21 w.r.t previous years that may be due to the COVID-19 restrictions. Further, the average concentration of PM10 was found slightly higher in year 2021-22 w.r.t. previous years. This may be due localized conditions and road condition.



Comments: The Sulphur di Oxide concentration in the Core area was always found below the prescribed limit of 80 μ g/m³. Lower level of concentration was observed since 2018-19.

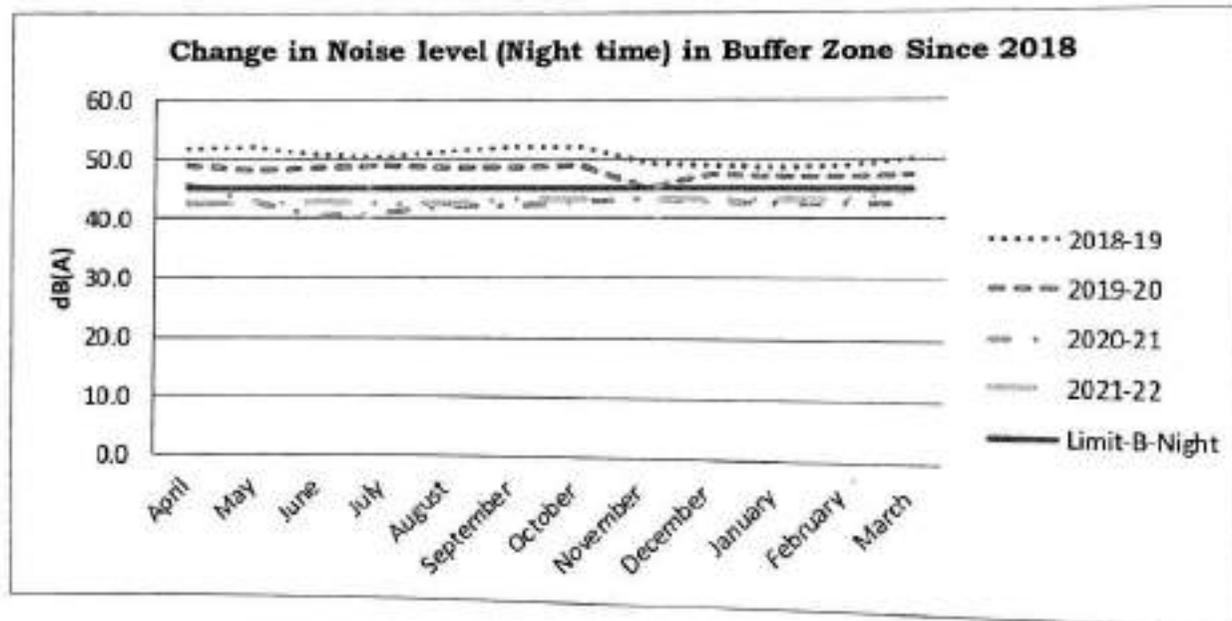
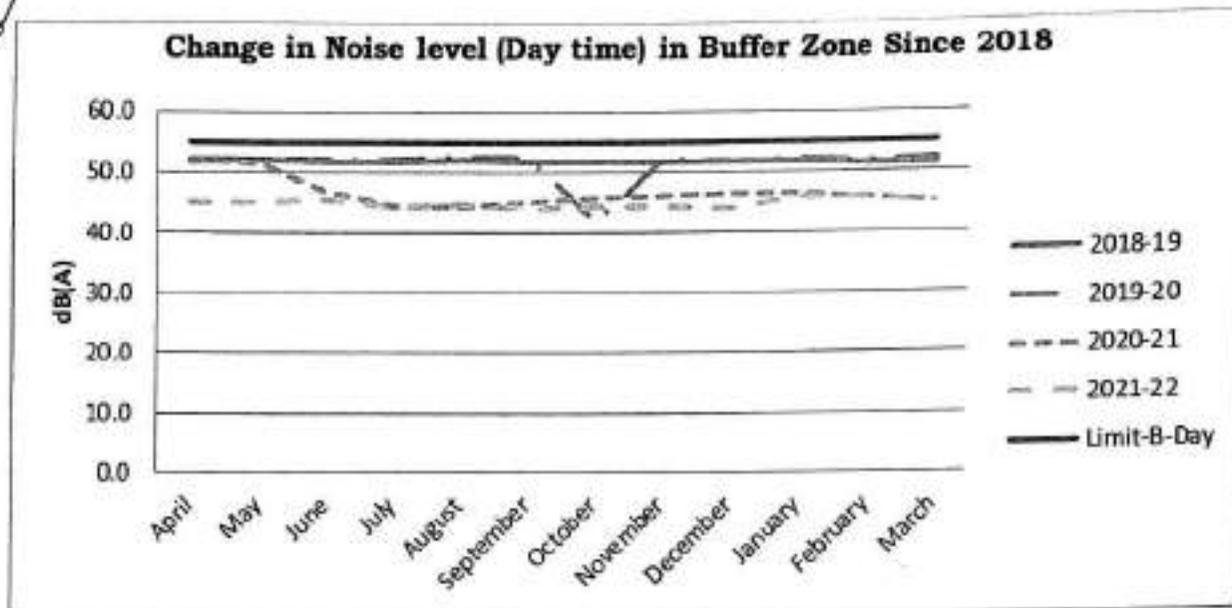


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Comments: The Nitrogen di Oxide concentration in the Core area was always found below the prescribed limit of 80µg/m³. As usual there was a dip in the concentration during initial months of COVID-19 restriction in year 2020-21.

The levels of NO₂ concentration were observed lower in level w.r.t. 2018-19 (Pre-expansion period). This may be due to decrease in number of vehicles after expansion by engaging high capacity loaders i.e. 35T in place of 25MT capacity loading trucks.

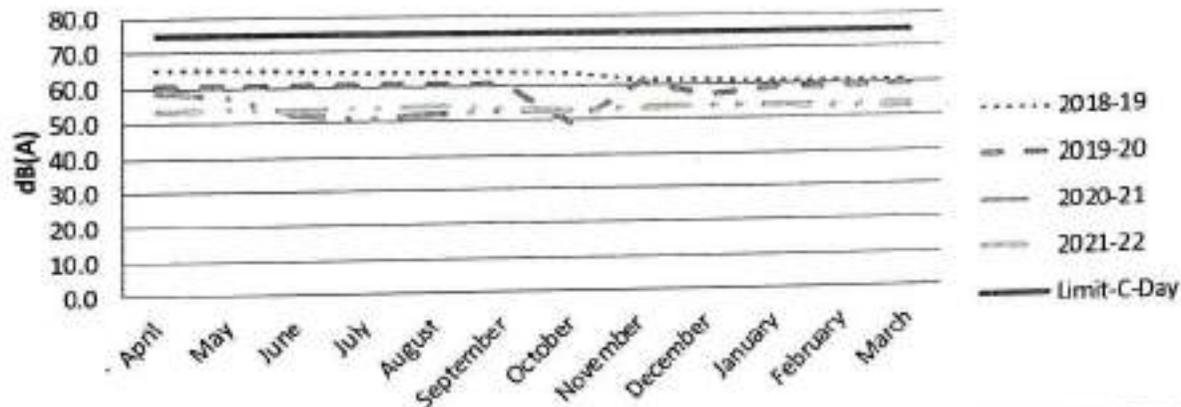
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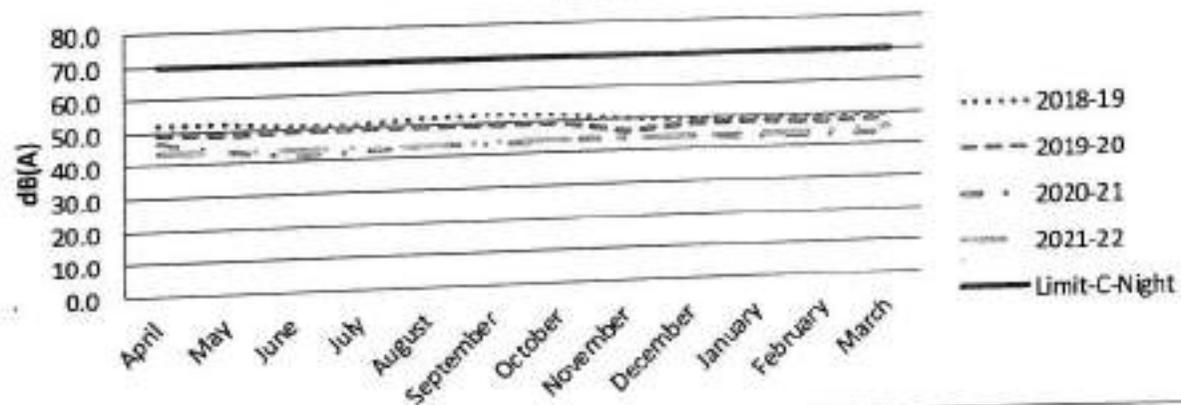
Comments: The noise level (dB(A)) in buffer area were found well below the prescribed DAY period standards of 55dB(A) since 2018. From FY2018-19, the noise level was observed below the levels of the pre-expansion. This may be due to instruction of less honking and reduced number of the vehicles after engaging high capacity loader i.e. 35T capacity.

The noise level during night period was found below the prescribed noise level (i.e. 45dB (A)) in year 2020 to 2022. However, Since 2018-19 it is showing lowering trend.

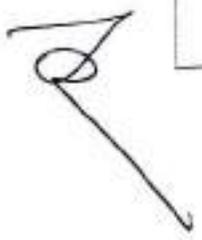
Change in Noise level (Day time) in Core Zone Since 2018



Change in Noise level (Night time) in Core Zone Since 2018



Comments: In all the years since 2018, the noise level was found below the prescribed day & night period noise level i.e. 75dB(A) and 70dB(A) respectively. Also the noise level was also showing lowering trends since 2018-19. This may be due to the best practices adopted by the unit viz. less or no honking; periodic maintenance of the machineries etc.



Water Quality: The 05 water samples collected on 21.5.2022 were analysed for specified parameters. The analysis was carried out at NABL laboratory of MPPCB, Bhopal Central Laboratory. The analysis results are as tabulated below:

Parameters	Location of sampling				Drinking water
	Mine water Discharge from plant premises	Mine water discharge before confluence in Baisaha nala	Up stream of Baisaha nala (near Kundari village)	Downstream of Baisaha nala (near Kanhat village)	
pH	7.75	7.94	7.67	7.82	6.7
COD	9.52	9.52	9.52	9.52	-
TSS	40	60	140	40	40
TDS	320	380	500	580	420
Chloride	12.44	12.44	38.28	14.35	10.52
Sulphate	38.02	38.68	142.4	81.4	32.4
Total Alkalinity	-	-	-	-	192
Total Hardness	-	-	-	-	220
NH3-N	-	-	-	-	BDL
Fe	0.13	0.14	0.19	0.18	0.15
Cd	BDL	BDL	BDL	BDL	BDL
Cu	0.013	0.018	0.017	0.017	0.015
Pb	BDL	BDL	BDL	BDL	BDL
Zn	BDL	0.01	0.01	0.09	BDL
Ni	BDL	BDL	BDL	BDL	BDL

Note: All the results are in mg/l except pH.

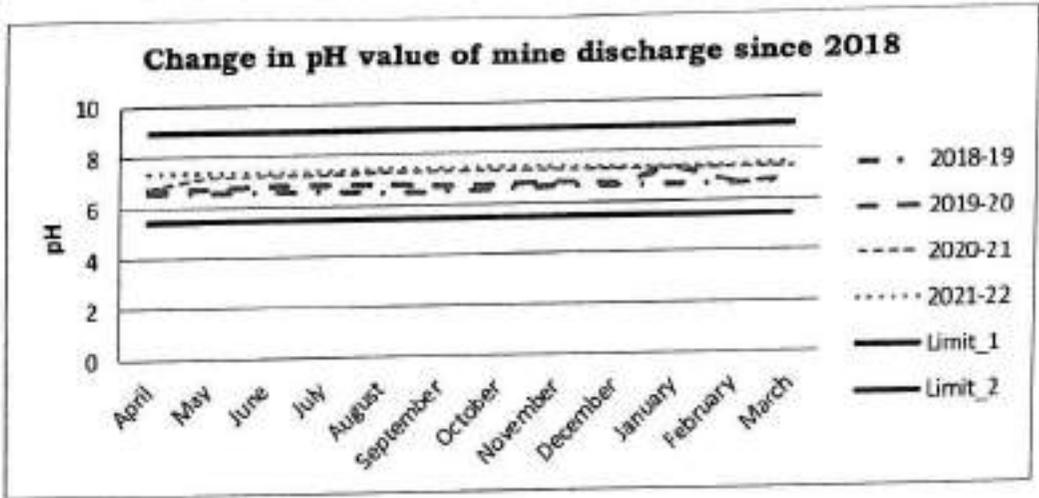
BDL- Below Detection Limit Detection limits (Cu-0.006mg/l, Fe-0.075mg/l, Zn-0.004mg/l, Ni-0.175mg/l, Pb-0.021mg/l & Cd-0.0004mg/l)

Parameters	Drinking water standards IS 10500:2012		Effluent discharge into sewer or stream or land (Notification No. GSR 742(E), Dt: 25.09.2000 and General Standards for discharge of Environmental Pollutants, GSR 801 (E) EPA 1993
	Acceptable limit	Permissible Limit	
pH	6.5-8.5	No relaxation	5.5-9.0
COD	-	-	250
TSS	-	-	100
TDS	500	2000	-
O&G	-	-	10
Chloride	250	1000	-
Sulphate	200	400	-
Total Alkalinity	200	600	-
Total Hardness	200	600	-
Fe	0.3	No relaxation	3.0
Cd	0.003	No relaxation	2.0
Cu	0.05	1.5	3.0
Pb	0.01	No relaxation	0.1
Zn	5	15	5.0
Ni	0.02	No relaxation	3.0

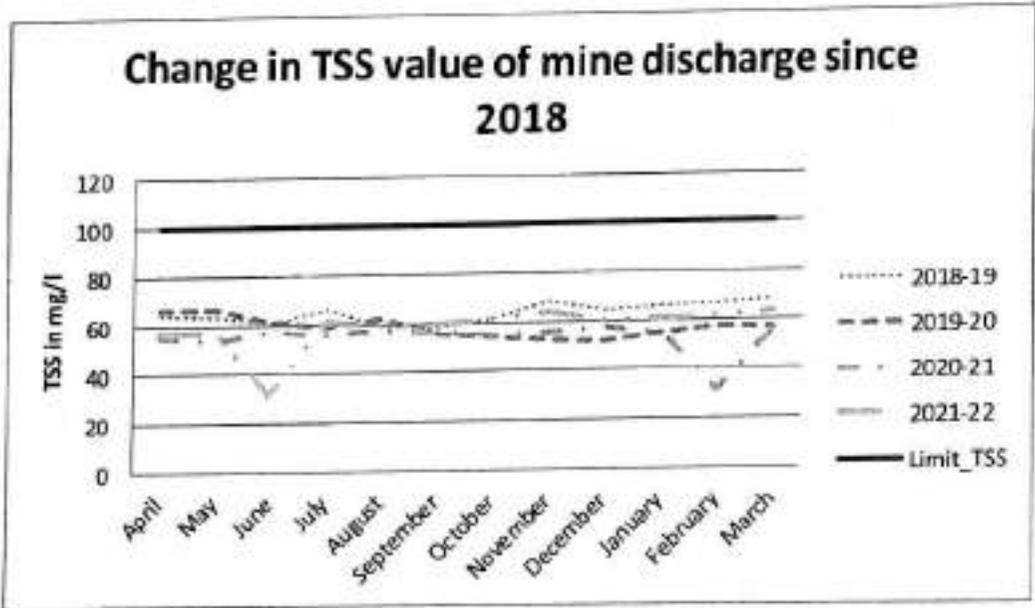
Note: All the results are in mg/l except pH.

The analysis report revealed that there were no parameters were found exceeding to the prescribed discharge standards or drinking water standards.

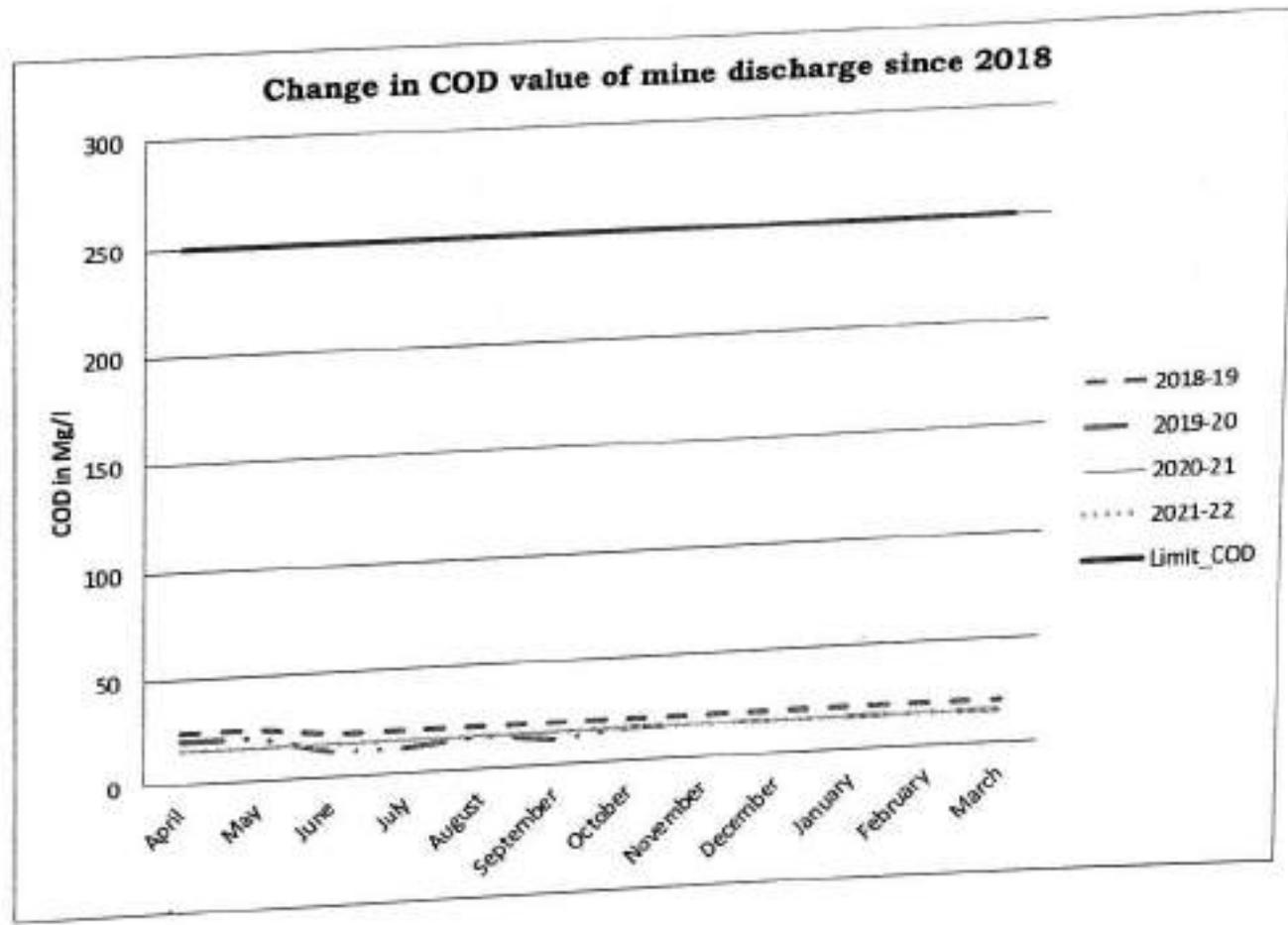
The status of water quality monitored by project proponent through CMPDI, Mahendragarh & Bilaspur during pre-expansion & post-expansion years was assessed and described below in graphical representation:



Comments: The pH values were found well between the prescribed discharged standards of 5.5 to 9. The pH values has shown an increasing trend w.r.t 2018-19, however that too is well within the prescribed standards.



Comments: The TSS concentration was found well below the prescribed discharge standard of 100mg/l during all the years since 2018. The lowering level of TSS w.r.t. 2018-19 level infers that settling tanks are working more effectively.



Comments: The Chemical Oxygen Demand (COD) concentration was found well below the prescribed discharge standard of 250mg/l since 2018. Also the COD levels has shown lowering trend w.r.t. 2018-19 monitored values that infers to improved treatment of the mine water.



5.0 Impact on the people of the area due to the Project Expansion

To assess the impact on the people of the area due to the expansion, it was opined to have discussion with inhabitant of the nearby village's viz. Khairaha, Khannath & Chirhiti. Further Health & Water quality related issues were discussed with concern authorities. The copy of the communication letters is enclosed as **Annexure-XI**

5.1 Submission of the inhabitants:

Committee hold it discussion with villagers of Khairaha, Khannath & Chirhiti on 23rd June 2022 and following was submitted in writing:

- i. It was submitted by the inhabitant of the nearby Village Khannath villager that the supply of 300KLD filtered water from mine has resolve the issue of drinking water of their village that has population of about 3000 persons.
- ii. It was submitted that mine management sprinkle water on the haul road on daily basis.
- iii. The truck movement majorly done during 8AM to 6PM with vehicle speed of about 20-30KM/hr. And there is no accident happened due to these trucks movement.
- iv. The mined water after treatment is discharged to Bhaisaha Nalla; from there nearby villagers get water for irrigation.

Copy of the submission is enclosed as **Annexure-XII**

The committee had discussion with the road side shopkeepers of Chirhiti village from where the trucks of 03 mines (Damini, Rajendra & Khairaha) pass, to know if there is any issue of dust pollution & others. It was informed that water sprinkling is carried out 5 days in week and during that period there is no issue of dust pollution; however during left out 02 days, issue of dust pollution rises. In this regard, it was informed by Sh Krishna, General Manager (Operation) of Khairaha mines that a work order on 9th April 2022 to re-carpeting of 10Kms length road was awarded with 5 years comprehensive maintenance that

covers this stretch too and work has already started. After re-carpeting of the road the issue will be resolved. Further committee asked to do sprinkling for all the 7 days to further minimise issue of dust pollution.

During visit, 02 trucks were also checked for their tarpaulin covering. It was found that trucks were partially covered with green net and that too was ripped off from many sides. On enquiry, it was found that both the trucks were of M/s Damini mine, SECL. Committee asked Sh Krishna to ensure that none of the mine of SECL shall allow trucks without proper cover.

As informed by RO, MPPCB instruction are issued many times to mine's for covering vehicles by tarpaulin. Instruction for regular water sprinklers are also issued.

With respect to the increased production capacity, it was inferred that movement of the trucks may have also increased but on assessing the data of last 04 years since May 2018 to May 2022 it was found that number of trucks has reduced. On discussion it was found that number of large capacity of trucks (35T) has increased from earlier loading trucks of 25T capacity. The details are as tabulated below:

Month	Dispatch comparative of last 04 years			
	Overall Total dispatch			%Increase in tripping capacity per truck in comparison to May 2018
Trip	QTY. (MT)	Average transporting capacity per truck/trip		
May 2018	2418	58432.88	24.17	-
May 2019	2369	63143.28	26.65	10.30
May 2020	1707	47710.73	27.95	15.66
May 2021	2119	59761.91	28.20	16.71
May 2022	2245	72793.74	32.42	34.18

Copy of the trucks trip and speed are enclosed as **Annexure-XIII**

5.2 Submission by the Municipal Council, Shahdol on water quality

Chief Municipal Officer vide its letter dated 24th June 2022 submitted that the water received from Sohagpur mines that includes Khairaha mine too, to Sarfa drain is collected in Sarfa dam and supplied to Shahdol municipal region after treatment and there is no issue reported w.r.t. water quality and the water quality is satisfactory.

The Sarfa dam water is treated through 02 water treatment plants that provide treatment of flocculation, rapid filtration followed by bleaching. The details are as tabulated below:

Old Water Treatment Plant	
Date of commissioning	Year 1975
Treatment Capacity	7.25MLD
Currently operated on	6.5MLD
Alum consumption	40Kg/shift of 8hrs Total - 120Kgs/daily
Bleaching consumption	10Kg/shift of 8 hrs Total - 30Kgs/daily
New Water Treatment Plant	
Date of commissioning	January 2019
Treatment Capacity	8MLD
Currently operated on	3MLD
Alum consumption	40Kgs/day
Bleaching consumption	10Kgs/day

The copy of the letter & analysis report of PHED District water testing lab is enclosed as **Annexure-XIV**.

The testing report reveals that the water quality is as per the permissible drinking water standards, however it is recommended that plant management shall install flow meter on the inlet of both the filtration plant and accordingly optimize the quantity of the chemicals. Further, it is recommended to ensure required residual chlorine in distribution avoid any contamination on distribution of the water.

To verify the water treatment quality of the water treatment plant, samples were drawn on 24th June 2022 by the committee. The analysis results are as tabulated below:

S. N O.	Parameter	Unit	Outlet of New filtration plant	Outlet of Old filtration plant	Permissible Standards IS 10500:2012
1.	pH	pH unit	7.68	7.57	6.5-8.5
2.	Total Dissolved Solids	Mg/l	277	288	2000
3.	Total Hardness	Mg/l	156	164	600
4.	Chloride	Mg/l	22	26	1000
5.	Alkalinity	Mg/l	68	72	600
6.	Sulphate	Mg/l	16	16	400
7.	Total coliform	MPN/10 Oml	<1.8	<1.8	Shall not be detectable in any 100 ml sample

The copy of the MPPCB analysis report is enclosed as **Annexure-XV**

The analysis report of the final outlet of the old & new plants are will within the drinking water standards of IS 10500:2012.

5.3 Submission by the Community Hospital Centre (CHC), Burhar on health

The committee had its discussion with Dr Sachin Karkhur, Block Medical Officer, CHC, Burhar on any increasing trend in OPD/IPD related to Bronchitis, Asthma, hearing loss etc. since 2019 from the nearby villages of Khairaha mine. The CHC Burhar has 3 CHCs, 07 Public Health Centres (PHCs), 61 Sub health centres, 294 Arogya Kendras. During discussion, it was informed that there is no incremental trend of diseases related to lungs & ears reported.

The copy of the letter in this regard dated 24th June 2022 is enclosed as **Annexure-XVI**



The photographs taken during field visits are enclosed as **Annexure-XVII.**

6.0 Summary

The M/s Khairaha Underground mine of South Eastern Coalfield Limited (SECL) has expanded its annual mining capacity by 40% to 0.819MMT by Environmental clearance dated 11th January 2019 that was further on compliance of the conditions the EC was extended for 30 years on 10th January 2020.. The underground mining operation is done by continuous miner machine in absence of any blasting operation. The mined material is conveyed to surface and to bunkers through closed conveyor belts. The coal is transported through tarpaulin covered large loading capacity i.e. 25 to 35T trucks. The 14 fixed water sprinklers and moving sprinklers viz. tractor and truck-mounted fogger machine has resulted good quality of ambient air in the core as well as buffer area. The dedicated coal transporting road is maintained by the mine management and the recarpting work order with 5 years comprehensive maintenance shall further improve the air quality.

The PM10 values at near lamp room was found slightly above the prescribed levels this may be due to downwind location of the station and vehicle movement. Further, on comparing the environmental pollutants level from pre-expansion period i.e 2018-19 to till 2022, it was observed that the pollutants levels are showing lowering trends then the levels monitored in 2018-19. This may be due to adopted best practises viz. no or less honking of the vehicles, water sprinkling, settling ponds with proper settlement of the suspended particles.

Further, the mine management is providing treated mine water to the inhabitant of nearby village. And the treated mine water also cater the need of Shahdol town. The Municipal council submitted that there is no issue reported related to the quality of Sarfa dam water that is being used for drinking by the Shahdol town after treatment at Water treatment plant. Also there is no increasing

trend of lungs and ear related patients since 2018 in the CHC, Burhar that caters the nearby villages of the Khairaha mine.

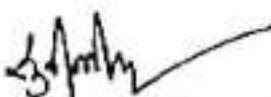
Considering the above, it is inferred that there is no incremental trend in environmental pollutants concentration, health related issues and water quality in the core & buffer area of the M/s Khairaha mine after the EC expansion.

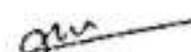
However, following are recommended for further improvement, betterment of the core & buffer area:

7.0 Recommendations

- i. Increase the plantation on the road side as per the EC condition.
- ii. M/S SECL management shall ensure that trucks of any SECL mines are not overloaded and are covered with tarpaulin to avoid fall of coal on the road that results in fugitive emission.
- iii. Raise the height of railway siding wall from 12ft to 15-20ft in total by Tin sheds.
- iv. Establish more number of Groundwater recharge structure, construct or reclaim Ponds in nearby villages where water is not being supplied.


(Sanjeev Kumar Mehra)
Regional Officer
MPPCB, Shahdol
Madhya Pradesh


(Sunil Kumar Meena)
Scientist "D"
CPCB, Bhopal
Madhya Pradesh


(Pragti Verma)
Sub Divisional Magistrate
Sohagpur, Shahdol
Madhya Pradesh

Item No. 02

(Court No. 1)

**BEFORE THE NATIONAL GREEN TRIBUNAL
SPECIAL BENCH**

(By Video Conferencing)

Appeal No.06/2019 (CZ)
(I.A. No. 24/2019)

Budhsen Rathour

Appellant

Versus

Union of India & Ors.

Respondent(s)

Date of hearing: 28.03.2022

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER
HON'BLE DR. ARUN KUMAR VERMA, EXPERT MEMBER
HON'BLE PROF. A. SENTHIL VEL, EXPERT MEMBER**

Appellant: Mr. Saurabh Sharma, Advocate

Respondent(s): Mr. Shireesh Shrivastava, Advocate for MoEF & CC
Mr. Sachin K. Verma, Advocate for the State of M.P
Ms. Parul Bhaodria, Advocate for MPPCB
Mr. Om Shankar Shrivastav, Advocate for R - 4

ORDER

1. This appeal has been preferred against EC dated 11.01.2019 for expansion of Khairaha Underground Coal Mining Project of M/s South Eastern Coalfields Limited located in District Shahdol (Madhya Pradesh) from 0.585 MTPA to 0.819 MTPA.

2. The impugned EC was granted in pursuance of recommendations of EAC in 41st Meeting held on 13-14.12.2018 read with Minutes of 36th Meeting held on 31.08.2018 reproduced below:

Minutes of 36th Meeting held on 31.08.2018

“36.1.3 *The EAC, after detailed deliberations on the proposal, noted the following:-*

The proposal is for environment clearance to the project for expansion of Khairaha Underground coal mining project from 0.585 MTPA to 0.819 MTPA by M/s South Eastern Coalfields Ltd in an area of 472.065 ha (ML area 470.872 ha) at tehsil Burhar, District Shahdol (MP).

There is no forest land involved under the project. Further, no National Park, Wildlife Sanctuaries, Eco-sensitive Zones are located within 10 km from the mine lease boundary.

The proposal seeks environmental clearance under the provisions contained in Para 7(10) of the EIA Notification, 2006, without any ToR for the project and the fresh public hearing.

*Total area of the coal mine as per the block allotment is 652.874 ha. However, as per approved Mining Plan, the area has been reported to be 472.065 ha. **The Mining Plan, including Mine Closure Plan, is reported to have been approved by the SECL Board on 25th November, 2017.***

Earlier, the project for its capacity of 0.585 MTPA was granted environmental clearance by the Ministry vide letter dated 28th July, 2005 based on the public hearing was conducted on 3rd in October, 2003.

The Regional Office, Bhopal has conducted site inspection of the area on 9th May, 2018 to monitor the status of compliance of conditions, stipulated in the environment clearance dated 28th July, 2005 and submitted the report vide their letter dated 18th June, 2018.

36.1.4 *The Committee, after detailed deliberations, observed that **in compliance of this Ministry's Notification dated 6th April, 2018, the project proponent needs to obtain the environmental clearance under the EIA Notification, 2006 for considering the present proposal for expansion. Accordingly, and based on its earlier recommendations in similar proposals, the Committee desired for additional information in respect of the following:-***

Public notice to be issued in leading newspapers (one national and two local) for information of the stakeholders about commencement of the project and present coal mining operations of capacity 0.585 MTPA in mine lease area of 470.872 ha, inviting comments and their redressal,

Valid Mining Plan and the Mine Closure Plan duly approved by the competent authority,

Compliance status of the conditions stipulated in the environmental clearance dated 28th July, 2005 from the Regional Office at Bhopal.

Consent to operate from the State Pollution Control Board for the present mining operations.

Forest clearance for the Revenue Forest land of 6.825 ha involved in the earlier mine/ease.

Redressal of issues raised during the last public hearing conducted by the SPCB on 30th October, 2003.

Coal production realized from the mine from 1994-95 vis-a-vis capacity stipulated in the environment clearance dated 28th July, 2005.

Details of court cases and the compliance status.

The proposal was, therefore, deferred for the needful on the above lines.

6. That Office Memorandum was issued by the MoEF&CC on 15.09.2017 for production capacity expansion up to 40% of production capacity without Public Hearing with certain conditions. On the basis of the above OM a proposal was submitted for grant of Environmental Clearance for expansion and was recommended for grant of Environmental Clearance for expansion from 0.585 MTPA to 0.819 MTPA to Khiraha Under Ground Mine without a public hearing in the existing mine lease area of 472.065 ha.”

41st Meeting held on 13-14.12.2018

41.5.3 Earlier, the proposal for re-validation of existing environmental clearance dated 28th July, 2005 in terms of the Ministry's Notification dated 6th April, 2018, was considered by the EAC in its meeting held on 31st August, 2018. During the meeting, the EAC desired/insisted for the information as under:-

- (i) Public notice to be issued in leading newspapers (one national and two local) for information of the stakeholders about commencement of the project and present coal mining operations, inviting comments and their redressal.*
- (ii) Valid Mining Plan and the Mine Closure Plan duly approved by the competent authority,*
- (iii) Compliance status of the conditions stipulated in the environmental clearance dated 28th July, 2005 from the Regional Office at Nagpur,*
- (iv) Consent to operate from the State Pollution Control Board for the present mining operations,*
- (v) Redressal of issues raised during the last public hearing conducted by the SPCB on 30th October, 2003, along with the R&R details duly certified by the State Government,*
- (vi) Details of court cases and the compliance status*

41.5.4 During deliberations on the proposal, the Committee noted the following: -

The proposal is for revalidation of environmental clearance dated 28th July, 2005 as mandated under the Ministry's Notification dated 6th April, 2018, and grant of environmental clearance to the project for expansion of Khairaha Underground Coal Mining Project from 0.585 MTPA to 0.819 MTPA in mine lease area of 472.065 ha of M/s South Eastern Coalfields Limited located in tehsil Burhar, District Shahdol (Madhya Pradesh) under the provisions contained in para 7(ii) of the EIA Notification, 2006, without any fresh ToR for the project and exemption from public hearing in terms of the Ministry's OM dated 15th September, 2017.

No forest land is involved in the project.

Mining Plan, including the Progressive Mine Closure Plan for the project of capacity 0.585MTPA was approved by CIL Board on 25th September, 2003 with an initial capital outlay of Rs.88.3303 Crores. Revised Mining Plan for the project for expansion from 0.585 MTPA to 0.819MTPA has been approved by SECL Board on 25th November, 2017.

Earlier, environmental clearance was granted by the Ministry vide letter dated 28th July, 2005 based on public hearing conducted by the State Pollution Control Board on 30th October, 2003 for production capacity of 0.585 MTPA in mine lease area of 513.50 ha. The revised mining plan for the proposed expansion project involves an area of 472.065 ha, as per the notification under the Coal Bearing Act, 1957 for the actual land of 478.89 ha and after excluding revenue forest land of 6.825 ha.

Consent to Operate for the existing production capacity has been obtained from the Madhya Pradesh State Pollution Control Board on 15th April, 201, which is valid up to 31st March, 2019.

The proposal for re-validation of environmental clearance in accordance with the Ministry's Notification dated 6th April, 2018 was considered by the EAC in its meetings held on 31st August, 2018. As per observations of the EAC, public Notice for information of the stakeholders about present coal mining operations of capacity 0.585 MTPA in mine lease area of 513.5 ha, was issued on 21st September, 2018 inviting comments within one month. As informed, no comments/suggestions were received within the prescribed time frame. Also, all other requirements insisted by the EAC for revalidation of the EC were observed to be complied with.

41.5.5 The EAC, after detailed deliberations and in exercise of the provisions contained in para 7(10) of the EIA Notification, 2006 and consideration of the parameters mentioned in the Ministry's OM dated 15th September, 2017, exempted the project from public hearing, and recommended for grant of environmental clearance to the expansion of Khairaha Underground Coal Mining Project from 0.585 MTPA to 0.819 MTPA in mine lease area of 472.065 ha of M/s South Eastern Coalfields Limited located in tehsil Burhar, District Shahdol (Madhya Pradesh) for a period of one year, subject to revalidation of the existing environmental clearance dated 28th July, 2005 and further subject to compliance of the terms & conditions and environmental safeguards mentioned below:

- **The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.**

- *The project proponent shall obtain Consent to establish from the State Pollution Control Board for capacity of 0.819 MTPA prior to commencement of the increased production.*
- *Transportation of coal from face to coal heap shall be carried out by belt conveyor. Further, the coal transportation from coal heap to Coal Handling Plant shall be carried out through covered trucks.*
- *Mitigating measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.*
- *Sufficient coal pillars shall be left un-extracted around the air shaft (within the subsidence influence area) to protect from any damage from subsidence, if any.*
- *Solid barrier shall be left below the roads falling within the block to avoid any damage to the roads and no depillaring operation shall be carried out below the township/colony.*
- *Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.*
- *Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings should be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clay soil/suitable materials.*
- *Garland Surface drains (Size, gradient and length) around the safety areas such as mineshaft and low lying areas and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rain fall and maximum discharge in the area adjoining the mine sites. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.*
- *Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.*
- *The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 0.819 MTPA.*
- *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*

- ***A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI/NEERI/HT or any other expert agency identified by the Ministry.***

3. **Contentions raised on behalf of the Appellant** are that requisite procedure laid down under the EIA Notification dated 14.09.2006 has not been followed, particularly with regard to public hearing. OM dated 15.09.2017 could not have the effect of modifying the EIA Notification dated 14.09.2006. No proper evaluation has been conducted. The data of 2002 was considered while granting original EC on 28.07.2005 which is stale for considering expansion. The Project Proponent has failed to comply with EC conditions of 2005 with regard to preparation of subsidence map and its monitoring on monthly basis which was required to be submitted before expansion which has not been done. Plantation has also not been done as required. Digital monitoring studies of land use have not been submitted. Occupational Health Surveillance Programme of the workers has not been undertaken. The area is energy surplus and thus there is no requirement of energy to be produced from coal as per Central Electricity Authority's Load Generation Balance Report ("LGBR") for 2018-2019. The PP has not shown justification for the project with the evidence of confirmed end user. No Cumulative Impact Assessment and Carrying Capacity studies have been done in respect of the mining area in question.

4. Vide order dated 03.03.2020, the Tribunal issued notice to the respondents including the PP, the MoEF&CC and the State of M.P.

5. Reply has been filed by the MoEF&CC justifying the grant of EC for expansion for capacity for mining. It is stated that EC was originally granted on 28.07.2005 for 0.585 MTPA capacity in project area of 472.065 ha. and public consultation was conducted on 30.10.2003.

Ministry of Coal requested to dispense with public hearing for expansion on which EAC granted exemption from public hearing, since the expansion was upto 40% of the production capacity in 2-3 phases. The exemption from public hearing has been granted subject to fulfillment of following conditions:-

“

- i. *Predicted air quality parameters are within the prescribed norms.*
- ii. *Coal transportation is through conveyor system up to the silo and then loading to railway wagons, involving no transportation through roads.*
- iii. *Coal mining is done through deployment of surface miners, replacing three dust generating operations of the conventional mining system namely drilling, blasting and crushing in one go.*
- iv. *Public hearing already conducted for the total mine lease area involved and no more area is required for the proposed expansion.*
- v. *Compliance status of EC conditions monitored by the concerned Regional Office of this Ministry is found to be satisfactory.*
- vi. *Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as applicable, Forest Clearance, etc. are satisfactorily fulfilled.”*

6. Proposal was deferred by the Expert Appraisal Committee (EAC) of the Ministry for Thermal & Coal Mining Sector in its 36th Meeting held on 31.08.2018 and thereafter in its 41st Meeting held on 13-14th December, 2018, considering the information provided, EC for expansion was recommended, subject to the following conditions:-

“

- a. *Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards. (Refer Para No. 4.1, clause (a), condition no. (iv) in the EC Letter dated 11.01.2019).*
- b. *Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc. shall be carried out in critical areas prone to air pollution (with higher values of PM 10/ PM2.5) such as haul road, loading/unloading and transfer points. Fugitive dust*

emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board. (Refer Para No. 4.1, clause (h), condition no. N in the IX' Letter dated 11.01.2019).

c. The transportation of coal shall be carried out as per the provisions and route proposed in the approved Mining Plan. Transportation of coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated. (Refer Pam No. 4.1, clause (b), condition no. (iii) in the EC Letter dated 11.01.2019).

d. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' Certificate form the authorized pollution testing centres. (Refer Para No. 4.1, clause (b), condition no. (iv) in the EC Letter dated 11.01.2019)."

7. The Regional Officer, MoEF&CC had submitted compliance status report dated 18.06.2018 to the effect that Project Proponent has installed 4 monitoring stations in core zone and 4 ambient air quality stations in buffer zone as well. Monitoring of Air, Water & Noise was being done fortnightly and that of Heavy metals, once in six months.

8. We have heard learned Counsel for the parties and considered the matter.

Consideration of the issue

9. First point to be considered is the validity of exemption from public hearing for expansion of the project, as permissible as per OM dated 15.09.2017. Similar issue was considered vide order dated 25.08.2020 in *Appeal no. 78/2018, Laxmi Chuhan vs. Union of India & Ors.* It was held that since public hearing had been earlier conducted, there was no prejudice by exemption from public hearing, public of the area was benefitted by expansion of the project, exempting public hearing in terms of OM dated 15.9.2017 could not be held to be illegal nor against EIA

notification dated 14.9.2006. In the present case, we have already noted the basis for exemption in terms of 36th and 41st Meetings on 31.08.2018 and 13-14.12.2018 of the EAC and conditions subject to which EC for expansion was granted. In absence of any prejudice to the environment or interest of the inhabitants, exemption from public hearing per se cannot be held illegal. However, whether prejudice has been caused or not needs to be looked into.

10. Further question is compliance of conditions for expansion and of impact of expansion. The PP has not filed any response. Relevant documents have also not been filed inspite of opportunity to do so. Burden of showing that activity of expansion is benign is on the PP.

11. In these circumstances, even if exemption from public hearing is held to be legally permissible, an independent investigation of impact of expansion and status of compliance of conditions for expansion has to be undertaken.

12. Accordingly, we constitute a joint Committee comprising CPCB, State PCB and District Magistrate to ascertain status of compliance of conditions for expansion and impact of the project on the environment and people in the area by undertaking site visit and considering the view point of all stakeholders, including the inhabitants of the area. State PCB will be the nodal agency for compliance and coordination. We permit any stakeholder to represent to the Committee through the State PCB within one month from today.

13. The Committee may furnish its report within three months by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

List for further consideration on 25.07.2022.

A copy of this order be forwarded to CPCB, State PCB and District Magistrate, Shahdol by e-mail for compliance.

Adarsh Kumar Goel, CP

S.K. Singh, JM

Sudhir Agarwal, JM

Arun Kumar Tyagi, JM

Dr. Arun Kumar Verma, EM

Prof. A. Senthil Vel, EM

March 28, 2022
Appeal No.06/2019 (CZ)
(I.A. No. 24/2019)
SN

केन्द्रीय प्रदूषण नियंत्रण बोर्ड

(पर्यावरण एवं एक जलवायु परिवर्तन विभाग, माला गारबा)

दिनांक: 08 अक्टूबर, 2022

Most Urgent
NGT Case

माननीय एन.जी.टी. अपील नं.-06/2019(CZ)/ 30-33

सदस्य सचिव

मध्य प्रदेश राज्य प्रदूषण नियंत्रण बोर्ड

अधिकारी पर्यावरण परिसर, ई-5 अरेरा कॉलोनी

भोपाल - 462016

NGT Appeal No. 06/2019 (CZ) "Budhsen Rathour vs. Union of India & Ors." में अधिकारी के नामांकन बाबत।

- माननीय एन.जी.टी. द्वारा पारित आदेश दिनांक 28.03.2022.
- MPPCB द्वारा प्रेषित पत्र दिनांक 31.03.2022.

संदर्भ

विषयवस्तु प्रकरण में माननीय एन.जी.टी. द्वारा पारित आदेश दिनांक 28.03.2022 के संदर्भ में संयुक्त समिति प्रारंभ किया गया है, जिसमें केन्द्रीय प्रदूषण नियंत्रण बोर्ड, मध्य प्रदेश प्रदूषण नियंत्रण बोर्ड एवं जिला टंछधिकारी, शहडोल शामिल हैं। उक्त विषय में आपसे प्राप्त पत्र दिनांक 31.03.2022 के परिपेक्ष में माननीय एन.जी.टी. द्वारा अर्पित कार्य को इस कार्यालय से श्री सुनील कुमार मीणा, वैज्ञानिक 'घ' (फ़ोन नं.- 09817007250) ईमेल- smk@ppcb.mpp.gov.in को समित्त समिति में केन्द्रीय प्रदूषण नियंत्रण बोर्ड के प्रतिनिधि के रूप में नामित किया गया है।

अनुरोध है कि उपरोक्त कार्य हेतु तिथि निर्धारित कर इस कार्यालय को सूचित करने का कष्ट कर जिससे कि संबंधित अधिकारी को उपरोक्त बाबत सूचित किया जा सके एवं माननीय एन.जी.टी. द्वारा निष्पत्ति तिथि के पूर्व की गई कारवाही त्वरित प्रतिवेदन माननीय एन.जी.टी. के समक्ष संबंधित नोटल एजेंसी द्वारा प्रस्तुत किया जा सके। प्रकरण में आगामी सुनवाई केन्द्रक 25.07.2022 नियत है।

भवदीय,

अमित
(पी. जयन)
क्षेत्रीय निदेशक

प्रतिनिधि:

- (1) डिविजनल हेड, विधि अनुभाग, के.प्र.नि. बोर्ड, दिल्ली - की ओर कृपया सूचनाएं।
- (2) श्री सुनील कुमार मीणा, वैज्ञानिक 'घ', के.प्र.नि.बो., भोपाल
- (3) क्षेत्रीय अधिकारी, म.प्र.प्र.नि.बो., शहडोल

कृपया सूचनाएं एवं
कार्यवाही हेतु।

अमित
क्षेत्रीय निदेशक

कार्यालय कलेक्टर जिला दण्डाधिकारी जिला-शहडोल (म.प्र.)

क्रमांक 242 /एनजीटी/स्टेनो/2022
प्रति,

शहडोल, दिनांक: 13/04/2022

सदस्य सचिव,
म.प्र. प्रदूषण नियंत्रण बोर्ड
पर्यावरण परिसर, अरेरा कॉलोनी,
ई-5, भोपाल (म.प्र.) 462016

विषय:- माननीय एन.जी.टी. द्वारा अपील क्रमांक-06/2019 (द्वारा: बुद्धसेन राठौर
विरूद्ध भारत संघ व अन्य) में दिनांक 28.03.2022 को पारित आदेश के
संबंध में जिला प्रशासन के प्रतिनिधि के नामांकन बाबत

संदर्भ:- आपका पत्र क्रमांक 1062/विधि/एनजीटी(जी.जेड.)/प्रनिबो/2022 भोपाल
दिनांक 31.03.2022

उपरोक्त विषयांतर्गत माननीय राष्ट्रीय हरित अधिकरण में विचाराधीन अपील
क्रमांक 06/2019 में दिनांक 28.03.2022 को पारित आदेश के तारतम्य में गठित
कमेटी में जिला प्रशासन के सदस्य के रूप में अनुविभागीय अधिकारी (राजस्व),
सोहागपुर को जिला प्रशासन की ओर से नामांकित किया जाता है।

कलेक्टर

जिला-शहडोल (म.प्र.)

क्रमांक 243 /एनजीटी/स्टेनो/ 2022
प्रतिलिपि:-

शहडोल, दिनांक 13 /04/2022

1. क्षेत्रीय निर्देशक, क्षेत्रीय निर्देशालय (मध्य), केन्द्रीय प्रदूषण नियंत्रण बोर्ड, परिवेश
भवन, पर्यावरण परिसर, ई-5, अरेरा कॉलोनी, भोपाल (म.प्र.) की ओर सूचनार्थ
प्रेषित।
2. अनुविभागीय अधिकारी (राजस्व), सोहागपुर अनुविभाग, शहडोल (म.प्र.) की ओर
सूचनार्थ एवं पालनार्थ।
3. क्षेत्रीय अधिकारी, म.प्र. प्रदूषण नियंत्रण बोर्ड शहडोल (म.प्र.) की ओर सूचनार्थ।

कलेक्टर

जिला-शहडोल (म.प्र.)



मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड,
पर्यावरण परिसर, ई-5, अरेरा कॉलोनी, भोपाल-462016
Fax No : +91-755-2463742 E-mail : it_mppcb@rediffmail.com



क्रमांक 1062 /विधि/ NGT(CZ)/प्रनिबो/22
प्रति

भोपाल, दिनांक 31 MAR 2022

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5/4/22

1 कलेक्टर,
कलेक्टर कार्यालय,
शहडोल।

2 क्षेत्रीय निर्देशक,
क्षेत्रीय निदेशालय(मध्य)
केन्द्रीय प्रदूषण नियंत्रण बोर्ड,
परिवेश भवन, पर्यावरण परिसर,
ई-5, अरेरा कॉलोनी, भोपाल

विषय :- माननीय राष्ट्रीय हरित अधिकरण, भोपाल बेंच द्वारा अपील क, 06/2019, (खुदसेन सतौर विरुद्ध भारत संघ व अन्य) द्वारा दिनांक 28.03.2022 को पारित आदेश के अनुपालन बाबत।

उपरोक्त विषयान्तर्गत माननीय राष्ट्रीय हरित अधिकरण, भोपाल बेंच द्वारा अपील क, 06/2019, में दिनांक 28.03.2022 का कृपया अवलोकन हो, आदेश के मुख्य अंश निम्नानुसार है :-

"Accordingly, we constitute a joint Committee comprising CPCB, State PCB and District Magistrate to ascertain status of compliance of conditions for expansion and impact of the project on the environment and people in the area by undertaking site visit and considering the view point of all stakeholders, including the inhabitants of the area. State PCB will be the nodal agency for compliance and coordination. We permit any stakeholder to represent to the Committee through the State PCB within one month from today.

The Committee may furnish its report within three months by email at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF."

कृपया पारित आदेश के अनुपालन में आवश्यक कार्यवाही हेतु प्रति संलग्न प्रेषित है। साथ ही आपके कार्यालय से कमेटी हेतु अधिकारी को नामांकित कर आवश्यक कार्यवाही हेतु निर्देशित किये जाने का अनुरोध है।

संलग्न :- उपरोक्तानुसार


(P.P. मिश्रा)
संयुक्त सचिव

प्रतिलिपि :-

क्षेत्रीय अधिकारी, क्षेत्रीय कार्यालय, मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड, शहडोल की ओर सूचनाार्थ। आपको निर्देशित किया जाता है कि कलेक्टर-शहडोल, व केन्द्रीय प्रदूषण नियंत्रण बोर्ड के प्रतिनिधि से समन्वय कर 3 माह में संयुक्त रिपोर्ट का प्रारूप मुख्यालय को उपलब्ध कराये, ताकि निर्धारित समयावधि में माननीय एनजीटी को प्रस्तुत किया जा सके।

F. No.J-11015/72/2004-IA-II (M)
Government of India
Ministry of Environment, Forest and Climate Change
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan
Jorbagh Road, N Delhi - 3
Dated: 11th January, 2019

To

The General Manager (W B P & Environment)
M/s South Eastern Coalfields Ltd,
W B P & Environment Department,
Seepat Road,
Bilaspur - 495 006 (Chhattisgarh) Email: gmenvtsecl@gmail.com

Sub: Expansion of Khairaha Underground Coal Mining Project from 0.585 MTPA to 0.819 MTPA of M/s South Eastern Coalfields Limited in located in District Shahdol (Madhya Pradesh) - Environmental Clearance - reg.

Sir,

This refers to your letter No.SECL/BSP/ENVT/Khairaha UG/18/6932 dated 18th June, 2018 along with online proposal No. IA/MP/CMIN/75469/2018 dated 16th July, 2018 on the above mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for revalidation of environmental clearance dated 28th July, 2005 as mandated under the Ministry's Notification dated 6th April, 2018, and the proposal for grant of environmental clearance to the expansion of Khairaha Underground Coal Mining Project from 0.585 MTPA to 0.819 MTPA in an area of 472.065 ha of M/s South Eastern Coalfields Limited located in Tehsil Burhar, District Shahdol (Madhya Pradesh).

3. The proposal was considered by the sectoral Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Sector in its meeting held during 13-14 December, 2018. The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under -

- (i) The project was accorded environmental clearance by the Ministry vide letter dated 28th July, 2005 for production capacity of 0.585 MTPA in mine lease area of 513.50 ha.
- (ii) The Latitude and Longitude of the project site are 23°08'08" to 23°10'23" North and 81°26'48" to 81°28'16" East respectively. The project site lies in GSI Topo-sheet Number 64 E/8 of Survey of India.
- (iii) Joint Venture: No Joint Venture
- (iv) Coal Linkage : Thermal Power Stations
- (v) Employment generated / to be generated: 529
- (vi) Benefits of the project: Apart from earning revenue for the government, this coal Mine will bridge demand-supply gap of coal in the country and will provide opportunity of employment to the project affected villagers in the project and allied industries.
- (vii) The mine lease area as per the environmental clearance dated 28th July, 2005 is 513.50 ha. In notification under Section 9(i) of CBA, the actual land comes out to be 478.89 ha. The present expansion proposal, for operations in phase-I, is for 472.065 ha of mine lease area which excludes 6.825 ha of the forest land from the notified area under CBA.

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(viii) The land usage of the project will be as follows:

Present land use

S. No.	Land use	Area(ha)
1.	Agricultural Land	424.785
2.	Forest Land	0
3.	Waste Land	25.699
4.	Grazing Land	0
5.	Surface water bodies	1.295
6.	Settlements(Infra.& Road)	10.239
7.	Settlements(Infra.& Road) outside ML area	1.193
8.	Others (Govt. Land)	8.854
	TOTAL	472.065

Pre mining

S.N.	Landuse	Within ML Area (ha)	Outside ML Area (ha)	TOTAL (ha)
1.	Agricultural Land	424.785	--	424.785
2.	Forest Land	--	--	--
3.	Waste Land	25.699	--	25.699
4.	Grazing Land	--	--	--
5.	Surface water bodies	1.295	--	1.295
6.	Settlements(Infra.& approach road)	10.239	1.193	11.432
7.	Others (Govt. Land)	8.854	--	8.854
	TOTAL	470.872	1.193	472.065

Post mining

S. No.	Particulars	UG Quarry Area (ha)	Safety zone (ha)	Infrastructure (ha)	R&R site (ha)	Land for Nala diversion (ha)	Total (ha)
1.	Afforested Area	--	6.000	2.000	--	--	8.000
2.	Cultivable Land	453.338	--	--	--	--	453.338
3.	Water body	--	--	--	--	--	--
4.	Other Void area	--	--	--	--	--	--
5.	Other water bodies	1.295	--	--	--	--	1.295
6.	Built-Up Area	--	--	9.432	--	--	9.432
Total		454.633	6.000	11.432	--	--	472.065

(ix) Total balance mineable reserves as on 1st April, 2018 is 13.385 MT.

(x) The coal grade is G-6 & G-7. The average gradient is 1 in 23. There will be 3 seams with thickness ranging up to 4.72 m, but only two seams are workable.

(xi) Total estimated water requirement is 989 KL/day. The level of ground water ranges from 0.08 m to 10.90 m.

(xii) The method of mining is Mechanised Board & Pillar method with SDL & Continuous Miner.

(xiii) Degree of gassiness of seams : Degree- I

(xiv) The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.

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- (xv) The life of mine is 17 years as on 1st April, 2018.
- (xvi) Transportation: Coal transportation in pit through belt conveyor, Surface to Siding by covered tippers, siding to consumers by railway and to local consumers by covered trucks.
- (xvii) There is R & R involved. There are 524 PAFs.
- (xviii) Cost: Total capital cost of the project is Rs. 8833.03 Lakhs. CSR Cost is 2% of the average netprofit of the Company for the three immediate preceding financial years or Rs.2.00 per tonne of coal production of previous year whichever is higher. R&R Cost is Rs.376 Lakhs. Environmental Management Cost is Rs.75.16 lakh.
- (xix) Baisaha and Sarphanalla is located in east & west side beyond 100 mtr. from mine boundary and 2 nos. seasonal ponds exist within the project boundary
- (xx) Approvals: Revised mining plan for 0.819 MTPA has been approved by SECL Board on 25th November, 2017.
- (xxi) Subsidence: Caving is proposed as method of extraction for Khairaha Underground Mine. The subsidence prediction report was prepared by CMPDI in March, 2018. The surface topography of the mine is mostly flat in nature. The depth of coal seams of the mine varies from 52 meter to 107 meter for seam VII and 77 meter to 137 meter for seam VI bottom.
- (xxii) Ground Water Clearance: Applied vide Application No 21-4/592/NP/MIN/2017 dated 28th December, 2017 to Central Ground Water Authority.
- (xxiii) No wildlife sanctuary is within 10 km from the mine boundary
- (xxiv) Forestry issues: No forest area involved.
- (xxv) There are no court cases/violation pending with the project
- (xxvi) Public hearing for the last EC with capacity of 0.585 MTPA in an area of 513.5 ha was held on 30th October, 2003.
- (xxvii) Plantation is taken up in areas which are under Ail Right or under Surface Right. The area thus available is very small and considering all features within this small area, a very little space is made available for plantation. Moreover, the anticipated level of pollution is also significantly less since except for surface transport of coal, no other mining activity is made on surface. As such requirement of plantation for arresting the air and noise pollution is also significantly less.

4. The sectoral Expert Appraisal Committee in its meeting held during 13-14 December, 2018 has recommended the project for revalidation of the existing environmental clearance as mandated under the Ministry's Notification dated 6th April, 2018 and grant of environmental clearance to the expansion project. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby revalidates the existing environmental clearance dated 28th July, 2005 and accords environmental clearance to the **Expansion of Khairaha Underground Coal Mining Project of M/s South Eastern Coalfields Limited from 0.585 MTPA to 0.819 MTPA in an area of 472.065 ha located in Tehsil Burhar, District Shajdol (Madhya Pradesh) for a period of one year, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the terms & conditions and environmental safeguards as under:-**

- (i) The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.
- (ii) The project proponent shall obtain Consent to establish from the State Pollution Control Board for capacity of 0.819 MTPA prior to commencement of the increased production.
- (iii) Transportation of coal from face to coal heap shall be carried out by belt conveyor. Further, the coal transportation from coal heap to Coal Handling Plant shall be carried out through covered trucks.
- (iv) Mitigating measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.
- (v) Sufficient coal pillars shall be left un-extracted around the air shaft (within the subsidence

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influence area) to protect from any damage from subsidence, if any.

- (vi) Solid barrier shall be left below the roads falling within the block to avoid any damage to the roads and no depillaring operation shall be carried out below the township/colony.
- (vii) Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.
- (viii) Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings should be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clay soil/suitable materials.
- (ix) Garland Surface drains (Size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rain fall and maximum discharge in the area adjoining the mine sites. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.
- (x) Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.
- (xi) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 0.819 MTPA.
- (xii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (xiii) A third party assessment of EC compliance shall be undertaken through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

4.1 The grant of environmental clearance is further subjected to compliance of the generic conditions as under:

(a) Mining

- (i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- (ii) No change in mining method i.e. UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- (iii) Mining shall be carried out as per the approved mining plan (including mine closure plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- (iv) Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
- (v) No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
- (vi) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

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(b) Land reclamation and water conservation

(i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFC) from time to time shall be submitted to MOEFCC/Regional Office (RO).

(ii) Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

(iii) Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.

(iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, alongwith fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

(v) A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.

(vi) Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.

(vii) Native tree species shall be selected and planted over areas affected by subsidence.

(viii) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(c) Emissions, effluents, and waste disposal

(i) Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM₁₀/PM_{2.5}) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

(ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area in a phased manner. The green belt comprising a mix of native species shall be developed all along the major approach/ coal transportation roads.

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(iii) The transportation of coal shall be carried out as per the provisions and route proposed in the approved Mining Plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.

(iv) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.

(v) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

(vi) Coal handling plant shall be operated with effective control measures viz. bag filters/water or mist sprinkling system etc to check fugitive emissions from crushing operations, conveyor system, transfer points, etc.

(vii) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

(viii) Catch/garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression measures and green belt development. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.

(ix) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap shall be installed and maintained fully functional with effluents discharge adhering to the norms. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste.

(x) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.

(d) Illumination, noise & vibration

(i) Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in underground mining operations, operation of HEMM, etc. shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.

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Chief Officer, Department of Mines

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(ii) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(iii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.

(iv) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(e) Occupational health & safety

(i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.

(ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the workers engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.

(iii) Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

(iv) Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.

(v) Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.

(vi) Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land trustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/ R&R Policy of the State Government, as applicable.

(vii) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.11 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(f) Ecosystem and biodiversity conservation

(i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

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(ii) Greenbelt, consisting of three-tier plantation, of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt comprising of a mix of native species shall be developed all along the major approach roads/ coal transportation roads.

(g) Public hearing, R&R and CSR

(i) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land custeers shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

(ii) The project proponent shall ensure the expenditure towards socio-economic development in and around the mine, in every financial year as per the Corporate Social Responsibility Policy as per the provisions under Section 135 of the Companies Act, 2013.

(iii) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.11 (M) dated 29th October, 2014 titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(iv) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(h) Corporate environment responsibility

(i) The Company shall have a well laid down environment policy duly approved by Board of Directors. The environment policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions. Also, the company shall have a defined system of reporting of non-compliances/violations of environmental norms to the Board of Directors and/or shareholders/stakeholders.

(ii) The project proponent shall comply with the provisions contained in this Ministry's OM dated 1st May, 2018, as applicable, regarding Corporate Environment Responsibility.

(iii) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions should be displayed on website of the Company.

(iv) A separate environmental management cell both at the project and company headquarter level, with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

(v) Action plan for implementing EMP and environmental conditions shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

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(vi) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

(i) Statutory Obligations

(i) The environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law from time to time, and as applicable to the project.

(ii) This environmental clearance shall be subject to obtaining wildlife clearance, if applicable, from the Standing Committee of National Board for Wildlife.

(iii) The project proponent shall obtain Consent to Establish/Operate under the Air Act, 1981 and the Water Act, 1974 from the concerned State Pollution Control Board.

(iv) The project proponent shall obtain the necessary permission from the Central Ground Water Authority (CGWA).

(j) Monitoring of project

(i) Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.

(ii) The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.

(iii) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.

(iv) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

(v) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to Ministry of Environment, Forest and Climate Change/Regional Office.

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(vi) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

(vii) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental conditions to the Ministry of Environment, Forest and Climate Change/Regional Office. For half yearly monitoring reports, the data should be monitored for the period of April to September and October to March of the financial years.

(viii) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(k) Miscellaneous

(i) Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

(ii) The project authorities shall inform to the Regional Office regarding commencement of mining operations.

(iii) A copy of the environmental clearance shall be marked to concerned Panchayat. A copy of the same shall also be sent to the concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's Office/Tehsildar Office for information in public domain within 30 days.

(iv) The EC shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain.

(v) The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of this clearance, informing that the project has been accorded environmental clearance and a copy of the same is available with the State Pollution Control Board and also at website of the Ministry.

(vi) The environmental statement for each financial year ending 31 March in Form-V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the Company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail. Concerns raised during public hearing.

(vii) The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter.

5. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.

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- 6. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.
- 7. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- 8. The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of 'Common Cause Vs Union of India & others.
- 9. The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology in strict compliance of the judgment of Hon'ble Supreme Court.
- 10. This environmental clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.
- 11. This issues in supersession of the earlier EC granted vide letter No J-11015/72/2004-IA.II (M) dated 28th July, 2005.


 11/11/2019
 (S. K. Srivastava)
 Scientist E

Copy to:

- 1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
- 2. The APCCF, MOEF&CC, Regional Office (EZ), E-5 Arera Colony, Bhopal - 462 016
- 3. The Secretary, Department of Environment & Forests Government of Madhya Pradesh, Secretariat, Bhopal
- 4. The Member Secretary, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462 016
- 5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
- 6. The Member Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
- 7. The District Collector, Shahdol, Government of Madhya Pradesh
- 8. Monitoring File 9. Guard File 10. Record File 11. Notice Board


 11/11/2019
 (S. K. Srivastava)
 Scientist E



Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742

RED-LARGE

CTE-Expansion

VALID UP TO: 30/11/2019

CONSENT NO: ***

PCB ID: 20070

To,

M/s. Khairaha Under Ground Mine
South Eastern Coalfields Ltd,
Plot No:126, PO: Khairaha,
Tal : Sohagpur, Distt : Shahdol, (M.P.)- 484110

Subject: Grant of Consent to Establish-Expansion under section 25 of the Water (Prevention & Control of Pollution) Act, 1974 & under section 21 of the Air (Prevention & Control of Pollution) Act,1981

Ref: Your Consent to Establish-Expansion Application Receipt No. 756025 Dt. 04/01/2019 and last communication received on Dt. 10/01/2019

Without prejudice to the powers of this Board under section 25 of the Water (Prevention & Control of Pollution) Act,1974 under section 21 of the Air (Prevention & Control of Pollution) Act,1981 and without reducing your responsibilities under the said Acts in any way, this is to inform you that this Board grants Consent to Establish for setting up of an industrial plant/activities at **Plot No:126, PO: Khairaha, Tal : Sohagpur, Distt : Shahdol, (M.P.)- 484110**

SUBJECT TO THE FOLLOWING CONDITIONS :-

a. Location: Plot No:126, PO: Khairaha, Tal : Sohagpur, Distt : Shahdol, (M.P.)- 484110

b. Mining lease Area: 472.065 Hact

c. Product & Production Capacity:

Product	CCA Qty / year	Applied CTE Ex- Qty / year	CTE Ex- Qty / year
Mining of Coal	585000.0 M.T	819000.0 M.T	819000.0 M.T

The Consent (for Establish- Expansion) as required shall be granted to your industry after fulfillment of all the conditions mentioned above. For this purpose you shall have to make an application to this Board in the prescribed proforma **atleast two months before the expected date of commissioning of your industry**. The applicant shall not operate the unit without obtaining consent for operation from the Board and shall not bring in to use any out let for the discharge of effluent and gaseous emission.

Enclosures:-

- * Conditions under Water Act
- * Conditions under Air Act
- * General conditions



e-Signed On 30/01/2019 12:34:11
(Organic Authentication on AADHAR from UIDAI Server)
TPAV # VSE8118JOE

ACHYUT ANAND MISHRA
Member Secretary

Consent No:CTE-49416,Validity:30/11/2019, Outward No:87974,30/01/2019



Consent Order

CONDITIONS PERTAINING TO WATER (PREVENTION & CONTROL OF POLLUTION) ACT 1974 :-

1. The daily quantity of trade effluent at out fall of the unit shall not exceed **4400.0 KL/day**, and the daily quantity of sewage at out fall of the unit shall not exceed **10.0 KL/day**.

2. Trade Effluent Treatment:-

The applicant shall provide comprehensive effluent treatment system as per the proposal submitted to the Board and maintain the same properly to achieve following standards-

pH	Between	5.5 – 9.0	TDS	Not exceed	2100 mg/l.
Suspended Solids	Not exceed	100 mg/l.	Chlorides	Not exceed	1000 mg/l.
BOD 3 Days 270C	Not exceed	30 mg/l.			
COD	Not exceed	250 mg/l.			
Oil and grease	Not exceed	10 mg/l.			

For other parameters general standards of discharge as notified under EP Act 1986 and standards notified by MPPCB from time to time shall be applicable.

3. Sewage Treatment :- The applicant shall provide comprehensive sewage treatment system as per the proposal submitted to the Board and maintain the same properly to achieve following standards-

pH	Between	6.5 – 9.0
Suspended Solids	Not exceed	100 mg/l.
BOD 3 Days 27 ⁰ C	Not exceed	30 mg/l.
COD	Not exceed	250 mg/l.
Oil and grease	Not exceed	10 mg/l.
Fecal Coliform	Not exceed	1000 (MPN/100ml)

4. The mine water discharge shall be treated up to prescribed Standards in series of settling tanks and shall be reused in the process, for dust suppression, for green belt devolvement/gardening and water supply within the premises. The treated mine water discharge if done in Sarfa nala and Sarfa dam, shall conform to the CPCB prescribed river water quality criteria and shall not be polluted or harmful for the riparian users. The industry shall be responsible for maintaining the quality of mine water discharge and shall also be liable for any damage (s) being caused to environment, human & animal life and agriculture.

5. Water meter preferably electromagnetic/ultrasonic type with digital flow recording facilities shall be installed separately for category wise consumption of water for Industrial cooling/boiler feed, mine spray, process & domestic purposes and data shall be submitted online through XGN monthly patrak/statements. The industry/unit shall also monitor the treated wastewater flow and report the same online through monthly patrak/statements.

6. Any change in production capacity, process, raw material used etc. and for any enhancement of the above prior permission of the Board shall be obtained. All authorized discharges shall be consistent with terms and conditions of this consent. Facility expansions, production increases or process modifications which result new or increased discharges of pollutants must be reported by submission of a fresh consent application for prior permission of the Board

7. All treatment/control facilities/systems installed or used by the applicant shall be regularly maintained in good working order and operate effectively/efficiently to achieve compliance of the terms and conditions of this consent

8. The specific effluent limitations and pollution control systems applicable to the discharge permitted herein are set forth as above conditions.

9. Compilation of Monitoring-

i. Samples and measurements taken to meet the monitoring requirements specified above shall be representative of the volume and nature of monitored discharge.

ii. Following promulgation of guidelines establishing test procedures for the analysis of pollutants, all sampling and analytical methods used to meet the monitoring requirements specified above shall conform to such guidelines unless otherwise specified sampling and analytical methods shall conform to the latest edition of the Indian Standard specifications and where it is not specified the guidelines as per standard methods for the examination of Water and Waste latest edition of the American Public Health Association, New York U.S.A. shall be used.

iii. The applicant shall take samples and measurement to meet the monthly requirements specified above and report online

Consent No:CTE-49416,Validity:30/11/2019, Outward No:87974,30/01/2019



through XGN the same to the Board.

10. Recording of Monitoring-

i. The applicant shall make and maintain online records of all information resulting from monitoring activities by this Consent.

ii. The applicant shall record for each measurement of samples taken pursuant to the requirements of this Consent as follows:

- (i) The date, exact place and time of sampling
- (ii) The dates on which analysis were performed
- (iii) Who performed the analysis?
- (iv) The analytical techniques or methods used and
- (v) The result of all required analysis

iii. If the applicant monitors any Pollutant more frequently as is by this Consent he shall include the results of such monitoring in the calculation and reporting of values required in the discharge monitoring reports which may be prescribed by the Board. Such increased frequency shall be indicated on the Discharge Monitoring Report Form.

iv. The applicant shall retain for a minimum of 3 years all records of monitoring activities including all records of Calibration and maintenance of instrumentation and original strip chart regarding continuous monitoring instrumentation. The period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the applicant or when requested by Central or State Board or the court.

11. Reporting of Monitoring Results:-

Monitoring Information required by this Consent shall be summarized and reported by submitting a Discharge Monitoring report on line to the Board.

12. Limitation of discharge of oil Hazardous Substance in harmful quantities:-

The applicant shall not discharge oil or other hazardous substances in quantities defined as harmful in relevant regulations into natural water course. Nothing in this Consent shall be deemed to preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities, or penalties to which the applicant is or may be subject to clauses.

13. Limitation of visible floating solids and foam:

During the period beginning date of issuance the applicant shall not discharge floating solids or visible foam.

14. Disposal of Collected Solid-

All hazardous waste/sludge shall be disposed of as per the Authorization issued under Hazd & other waste Rules 2016. And/other Solids Sludges, dirt, silt or other pollutant separated from or resulting from treatment shall be disposed of in such a manner as to prevent any pollutant from such materials from entering any such water Any live fish, Shall fish or other animal collected or trapped as a result of intake water screening or treatment may be returned to eaters body habitat.

15. Provision for Electric Power Failure-

The applicant shall assure to the consent issuing authority that the applicant has installed or provided for an alternative electric power source sufficient to operate all facilities utilized by the applicant to maintain compliance with the terms and conditions of the Consent.

16. Prohibition of By pass system-

The diversion or by-pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this Consent is prohibited except :

- i. where unavoidable to prevent loss of life or severe property damage, or
- ii. Where excessive storm drainage or run off would damage any facilities necessary for compliance with the terms and conditions of this Consent. The applicant shall immediately notify the consent issuing authorities in writing of each such diversion or by-pass in accordance with the procedure specified above for reporting non-compliance.

17. Industry/Institute/mine management shall submit the information online through XGN in reference to compliance of consent conditions.

18. The mine management shall maintain zero discharge conditions as far as possible. The Mine management shall optimize the water abstraction from the surface water source, if any, by utilizing the mine discharge for spraying on haul roads, mine area and loading - unloading area after proper treatment. The treated mine discharge shall also be utilized for sanitary purposes by providing separate supply lines, dust suppression and for plantation in order to ensure zero discharge status as far as possible.



19. Rain water harvesting shall be undertaken to recharge ground water source and status of implementation shall be submitted to the Board. Hydro-geological study of the area shall be reviewed annually. In case any adverse effect on ground water quality and quantity is observed, mining shall be stopped and resumed only after applying mitigating steps to restore the same.

20. The mine management shall comply with the conditions stipulated in the Environmental Clearance F.No. J-11015/72/2004-IA-II (M) dated 11th January, 2019 granted by MoEF&CC .

CONDITIONS PERTAINING TO AIR (PREVENTION & CONTROL OF POLLUTION) ACT 1981 :-

1. The applicant shall provide comprehensive air pollution control system consisting of control equipments as per the proposal submitted to the Board with reference to generation of emission and same shall be operated & maintained continuously so as to achieve the level of pollutants to the following standards:-

Name of section	Capacity	Stack height (meters)	Fuel	Control equipment to be installed	SPM/RSPM (Annual Average) (µg/NM3)
Loading-unloading, Material Handling, Haul road, Transportation, CHP etc	Fugitive Emission	0	Nil	Dust Suppressor, Green Belt, Water Sprinkler,	430 / 215

2. Ambient air quality at the boundary of the industry/unit premises shall be monitored and reported to the Board regularly on quarterly basis: The Ambient air quality norms are prescribed in MoEF gazette notification no. GSR/826(E), dated: 16/11/09. Some of the parameters are as follows:

- a. Particulate Matter (less than 10 micron) - 100 µg/m³ (PM₁₀ µg/m³ 24 hrs. basis)
- b. Particulate Matter (less than 2.5 micron) - 60 µg/m³ (PM_{2.5} µg/m³ 24 hrs. basis)
- c. Sulphur Dioxide [SO₂] (24 hrs. Basis) - 80 µg/m³
- d. Nitrogen Oxides [NO_x] (24 hrs. Basis) - 80 µg/m³
- e. Carbon Monoxide [CO] (8 hrs. Basis) - 2000 µg/m³

3. The industry shall take adequate measures for control of noise level generated from industrial activities within the premises less than 75 dB(A) during day time and 70 dB(A) during night time.

4. Industry/Unit shall provide with each stack port hole with safe platform of 1 meter width with support & spiral ladder/ Stepped ladder with hand rail up to monitoring platform as per specifications given in part-III emission regulation of CPCB. In no case monkey ladder shall be allowed as stack monitoring facility.

5. The industry/unit shall make the necessary arrangements for control of the fugitive emission from any source of emission/section/activities.

6. All other fugitive emission sources such as leakages, seepages, spillages etc shall be ensured to be plugged or sealed or made airtight to avoid the public nuisance.

7. The industry/ unit shall ensure all necessary arrangements for control of odour nuisance from the industrial activities or process within premises

8. All the internal roads shall be made pucca to control the fugitive emissions of particulate matter generated due to transportation and internal movements. Good housekeeping practices shall be adopted to avoid leakages, seepages, spillages etc.

9. Industry shall take effective steps for extensive tree plantation of the local tree species within or around the industry/unit premises for general improvement of environmental conditions and as stated in additional condition

10. Mine management shall setup an online or manual coal ash monitoring system for raw, or blended or beneficiated coal supplied to thermal power plants as per the MoEFCC OM dated 26/08/2015 and submit the report to MPPCB.

11. Mine management shall install CAAQMS stations at suitable locations to monitor ambient air quality in the leased area and its vicinity and shall provide its suitable unhindered connectivity with Environment Surveillance Centre of the MPPCB and transmit the data within 3 months time.

12. Coal handling plant and coal loading and unloading in railway wagons / trucks should be provided with adequate number of high efficiency dust extraction / suppression system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated. Dust

Consent No:CTE-49416, Validity:30/11/2019, Outward No:87974,30/01/2019



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Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742**

control measures shall be adopted at coal transfer point of the high wall mining machine as per the need.

13. Mine management shall provide continues water sprinkler systems / rain gun at suitable locations on the road side and also provide proper pollution control arrangements to control the fugitive emission generates due to transportation of Coal from CHP.
14. Vehicular emissions should be kept under control and regularly monitored for compliance of emission norms. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.
15. Extensive tree plantation shall be done on both sides of Mineral transportation roads and around mining lease area. The tree plantation shall be carried out in phase manner preferably with local species. Good housekeeping practice shall be adopted by the Mine. More plantations with species like Neem, Pipal, Mango, Jamun, Kathal etc shall be planted.
16. The mine management shall comply with the conditions stipulated in the Environmental Clearance granted by MoEF&CC.
17. The mine shall take effective steps for safe and scientific reclamation of over burden steps shall be taken to keep the geological structure in the natural form by biological reclamation of mines.
18. Mine management shall take appropriate steps to maintain the eco-system of the area through environmental conservation program and the records shall be submitted to the Regional office of the Board annually.
19. Mines management shall provide progressive plantation on the over burden for stabilization of over burden and prevent the soil erosion.
20. Crushers at the CHP shall be operated with high efficiency bag filters. Mine management shall have to maintain automatic water spraying system for CHP, Coal stock yard and haul roads.
21. Mine management shall provide fencing all around the mining lease area to prevent the occurrence of accidental hazard.
22. Mine management shall have to deploy Continuous Miner for underground mining.
23. Mine shall not discharge any industrial effluent to any natural water body.
24. Mine water should be treated to such an extent that quality of water should meet suitable for beneficial uses.
25. Mine shall use all preventive measure to check Air pollution during transpiration of coal by trucks.
26. Regular wetting and sweeping of road should be practice during coal transport.
27. Mine shall utilize fly ash of thermal power plants for back filling of voids as per fly ash notification.
28. Mine management shall ensure that average ash contents in the raw or blended or beneficiated coal supplied to thermal power plants shall not exceed the limit of 34%.

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GENERAL CONDITIONS:

MANAGEMENT & DISPOSAL OF FLY ASH

1. THE MINE MANAGEMENT SHALL ENSURE ALL THE COMPLIANCES REGARDING DISPOSAL AND UTILIZATION OF FLY ASH AS STIPULATED IN MoEF&CC NOTIFICATIONS NO. S.O. 763(E) DATED 14/9/99 AND ITS AMENDMENTS VIDE NOTIFICATION NO. S.O. 979(E) DATED 27/8/03, S.O. 2804(E) DATED 03/03/09 AND S.O. 254(E) DATED 25/1/16. SOME OF THE RELEVANT STIPULATIONS ARE AS BELOW:

A. No person or agency shall within radius of 50 kilometers (by road) from coal or lignite based thermal power plants, undertake or approve stowing of mines without using 25% of fly ash on weight to weight basis, of the total stowing materials used and this shall be done under the guidance of DGMS.

B. No agency, person or organisation shall within a radius of hundred kilometers of a coal or lignite based thermal power plant undertake or approve or allow reclamation and compaction of low lying areas with soil; only fly ash shall be used for compaction and reclamation and they shall also ensure that such reclamation and compaction is done in accordance with specifications and guidelines laid down.

C. No person or agency shall within radius of 50 kilometers (by road) from coal or lignite based thermal power plants, undertake or approve without using 25% of fly ash on volume to volume basis of the total materials used for external dumps of over burden and same percentage in upper benches of back filling of opencast mines under the guidance of DGMS.

2. The mine management shall submit an action plan for the utilization of fly ash in the mines in compliance of the fly ash utilization within one month's time and shall also provide mining plan containing the provisions for utilization of fly ash in the mine.

3. The applicant shall allow the staff of Madhya Pradesh Pollution Control Board and/or their authorized representative, upon the representation of credentials:

- To inspect raw material stock, manufacturing processes, reactors, premises etc to perform the functions of the Board.
- To enter upon the applicant's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this Consent.
- To have access at reasonable times to any records required to be kept under the terms and conditions of this Consent.
- To inspect at reasonable times any monitoring equipment or monitoring method required in this Consent: or,
- To sample at reasonable times any discharge or pollutants.

4. This consent/authorisation is transferable, in case of change of ownership/management and addresses of new Owner/partner/Directors/proprietor should immediately apply for the same.

5. The issuance of this Consent does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorise any invasion of personal rights, nor any infringement of Central, State or local laws or regulations.

6. Industry shall install separate electric metering arrangement for running of pollution control devices and this arrangement shall be made in such fashion that any non functioning of pollution control devices shall immediately stop electric supply to the production and shall remain tripped till such time unless the pollution control device/devices are made functional. The record of electricity consumption for running of pollution control equipment shall be maintained and submitted to the Board every month

7. This consent is granted in respect of Water pollution control Act 1974 or Air Pollution Control act, 1981 or Authorization under the provisions of Hazardous and other Waste (Management & Transboundary movement) Rules 2016 only and does not relate to any other Department/Agencies. License required from other Department/Agencies have to be obtained by the unit separately and have to comply separately as per there Act / Rules.

8. Balance consent/authorisation fee, if any shall be recoverable by the Board even at a later date.

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9. The applicant shall submit such information, forms and fees as required by the board not later than 180 day prior to the date of expiration of this consent/authorisation
10. The industry/unit shall establish a separate environmental cell, headed by senior officer of the unit for reporting the environmental compliances. The industry/ Unit shall submit environmental statement for the previous year ending 31st March on or before 30th September every year to the Board.
11. Industry shall obtain membership of Emergency Response Center of the Board if needed.
12. Knowingly making any false statement for obtaining consent or compliance of consent conditions shall result in the imposition of criminal penalties as provided under the section 42(g) of the Water Act or section 38 (g) of the Air Act.
13. After notice and opportunity for the hearing, this consent may be modified, suspended or revoked by the Board in whole or in part during its term for cause including, but not limited to, the following :
 - (a) Violation of any terms and conditions of this Consent.
 - (b) Obtaining this Consent by misrepresentation or failure to disclose fully all relevant facts.
 - (c) A change in any condition that requires temporary or permanent reduction or elimination of the authorized discharge.
14. On violation of any of the above-mentioned conditions the consent granted will automatically be taken as canceled and necessary action will be initiated against the industry.

Consent/authorization as required under the Water (Prevention & Control of Pollution) Act, 1974, The Air (Prevention & Control of Pollution) Act, 1981 is granted to your industry subject to fulfillment of all the conditions mentioned above. For renewal purpose you shall have to make an application to this Board through XGN at least two months before the date of proposed expansion. The applicant without valid consent (for operation) of the Board shall not bring in to use any outlet for the discharge of effluent and gaseous emission.

**For and on behalf of
M.P. Pollution Control Board**

(Member Secretary)



e-Signed On 30/01/2019 12:34:11
(Organic Authentication on AADHAR from UIDAI Server)
TPAV # VSE8118JOE

ACHYUT ANAND MISHRA
Member Secretary

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Consent Order

M.P. Pollution Control Board
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RED-LARGE

CCA-Expansion

VALIDITY (A/W): 31/12/2019
VALIDITY (H): 31/12/2024

CONSENT NO: ***

PCB ID: 20070

To,
The Occupier,
M/s. Khairaha Under Ground Mine
South Eastern Coalfields Ltd,
Plot No:126, PO: Khairaha,
Tal : Sohagpur, Distt : Shahdol, (M.P.)- 484110

Subject: Grant of Consent to Operate-Expansion under section 25 of the Water (Prevention & Control of Pollution) Act, 1974 & under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Hazardous and other Waste (Management & Transboundary movement) Rules, 2016

Ref: Your Consent to Operate-Expansion Application Receipt No. 788150 Dt. 02/02/2019 and last communication received on Dt.08/02/2019

With reference to your above application for consent to operate has been considered under the aforesaid Acts and existing rules therein. The M. P. Pollution Control Board has agreed to grant consent up to 31/12/2019 & authorisation up to 31/12/2024, subject to the fulfillment of the terms & conditions, enclosed with this letter and-

SUBJECT TO THE FOLLOWING CONDITIONS :-

- Location: Plot No:126, PO: Khairaha, Tal : Sohagpur, Distt : Shahdol, (M.P.)- 484110
- Mining Lease Area: 472. 065 Hact
- Product & Production Capacity:

Product	Existing CCA Qty/Year	CTE-Expansion Qty/Year	CCA-Expansion Qty/Year
Mining of Coal	585000.0 M.T	819000.0 M.T	819000.0 M.T

Note:- For any change in above industry shall obtain fresh consent from the board.

The Validity of the consent is up to 31/12/2019 and has to be renewed before expiry of consent validity. Online application through XGN with annual license fees in this regard shall be submitted to this office **6 months before expiry of the consent/Authorization**. Board reserves the right to amend/cancel / revoke the above condition in part or whole as and when required.

Enclosures:-

- * Conditions under Water Act
- * Conditions under Air Act
- * Conditions under Hazardous Rules
- * General conditions



e-Signed On 18/02/2019 12:30:12
(Organic Authentication on AADHAR from UIDAI Server)
TPAV # Y45EQ56H4X

ACHYUT ANAND MISHRA
Member Secretary

Consent No:AWH-49560,Validity:31/12/2019,Hazd Val:31/12/2024, Outward No:88130,18/02/2019



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CONDITIONS PERTAINING TO WATER (PREVENTION & CONTROL OF POLLUTION) ACT 1974 :-

1. The daily quantity of trade effluent at out fall of the unit shall not exceed **4400.0 KL/day**, and the daily quantity of sewage at out fall of the unit shall not exceed **10.0 KL/day**

2. Trade Effluent Treatment:-

The applicant shall provide comprehensive effluent treatment system as per the proposal submitted to the Board and maintain the same properly to achieve following standards-

pH	Between	5.5 – 9.0	TDS	Not exceed	2100 mg/l.
Suspended Solids	Not exceed	100 mg/l.	Chlorides	Not exceed	1000 mg/l.
BOD 3 Days 270C	Not exceed	30 mg/l.			
COD	Not exceed	250 mg/l.			
Oil and grease	Not exceed	10 mg/l.			

For other parameters general standards of discharge as notified under EP Act 1986 and standards notified by MPPCB from time to time shall be applicable.

3. Sewage Treatment :- The applicant shall provide comprehensive sewage treatment system as per the proposal submitted to the Board and maintain the same properly to achieve following standards-

pH	Between	6.5 – 9.0
Suspended Solids	Not exceed	100 mg/l.
BOD 3 Days 270C	Not exceed	30 mg/l.
COD	Not exceed	250 mg/l.
Oil and grease	Not exceed	10 mg/l.
Fecal Coliform	Not exceed	1000 (MPN/100ml)

4. The mine water discharge shall be treated up to prescribed Standards in series of settling tanks and shall be reused in the process, for dust suppression, for green belt devolvement/gardening and water supply within the premises. The treated mine water discharge if done in Sarfa nala and Sarfa dam, shall conform to the CPCB prescribed river water quality criteria and shall not be polluted or harmful for the riparian users. The industry shall be responsible for maintaining the quality of mine water discharge and shall also be liable for any damage (s) being caused to environment, human & animal life and agriculture.

5. Water meter preferably electromagnetic/ultrasonic type with digital flow recording facilities shall be installed separately for category wise consumption of water for Industrial cooling/boiler feed, mine spray, process & domestic purposes and data shall be submitted online through XGN monthly patrak/statements. The industry/unit shall also monitor the treated wastewater flow and report the same online through monthly patrak/statements.

Sr	Water Code (Qty in KLD)	WC : 415.0	WWG : 4410.0
1	Domestic Purpose	15.0	10.0
2	Mine Water Discharge	0.0	4400.0
3	Manufacturing Process	200.0	0.0
4	Spray in Mines	200.0	0.0

6. Any change in production capacity, process, raw material used etc. and for any enhancement of the above prior permission of the Board shall be obtained. All authorized discharges shall be consistent with terms and conditions of this consent. Facility expansions, production increases or process modifications which result new or increased discharges of pollutants must be reported by submission of a fresh consent application for prior permission of the Board

7. All treatment/control facilities/systems installed or used by the applicant shall be regularly maintained in good working order and operate effectively/efficiently to achieve compliance of the terms and conditions of this consent

8. The specific effluent limitations and pollution control systems applicable to the discharge permitted herein are set forth as above conditions.

9. Compilation of Monitoring-

i. Samples and measurements taken to meet the monitoring requirements specified above shall be representative of the volume and nature of monitored discharge.

ii. Following promulgation of guidelines establishing test procedures for the analysis of pollutants, all sampling and analytical methods used to meet the monitoring requirements specified above shall conform to such guidelines unless

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otherwise specified sampling and analytical methods shall conform to the latest edition of the Indian Standard specifications and where it is not specified the guidelines as per standard methods for the examination of Water and Waste latest edition of the American Public Health Association, New York U.S.A. shall be used.

iii. The applicant shall take samples and measurement to meet the monthly requirements specified above and report online through XGN the same to the Board.

10. Recording of Monitoring-

i. The applicant shall make and maintain online records of all information resulting from monitoring activities by this Consent.

ii. The applicant shall record for each measurement of samples taken pursuant to the requirements of this Consent as follows:

- (i) The date, exact place and time of sampling
- (ii) The dates on which analysis were performed
- (iii) Who performed the analysis?
- (iv) The analytical techniques or methods used and
- (v) The result of all required analysis

iii. If the applicant monitors any Pollutant more frequently as is by this Consent he shall include the results of such monitoring in the calculation and reporting of values required in the discharge monitoring reports which may be prescribed by the Board. Such increased frequency shall be indicated on the Discharge Monitoring Report Form.

iv. The applicant shall retain for a minimum of 3 years all records of monitoring activities including all records of Calibration and maintenance of instrumentation and original strip chart regarding continuous monitoring instrumentation. The period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the applicant or when requested by Central or State Board or the court.

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The diversion or by-pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this Consent is prohibited except:

- i. where unavoidable to prevent loss of life or severe property damage, or
- ii. Where excessive storm drainage or run off would damage any facilities necessary for compliance with the terms and conditions of this Consent. The applicant shall immediately notify the consent issuing authorities in writing of each such diversion or by-pass in accordance with the procedure specified above for reporting non-compliance.

17. Industry/Institute/mine management shall submit the information online through XGN in reference to compliance of consent conditions.

18. The mine management shall maintain zero discharge conditions as far as possible. The Mine management shall optimize the water abstraction from the surface water source, if any, by utilizing the mine discharge for spraying on haul roads, mine area and loading - unloading area after proper treatment. The treated mine discharge shall also be

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utilized for sanitary purposes by providing separate supply lines, dust suppression and for plantation in order to ensure zero discharge status as far as possible.

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20. The mine management shall comply with the conditions stipulated in the Environmental Clearance F.No. J11015/72/2004-IA-II (M) dated 11th January, 2019 granted by MoEF&CC

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Name of section	Capacity	Stack height (meters)	Fuel	Control equipment to be installed	SPM/RSPM (Annual Average) ($\mu\text{g}/\text{NM}^3$)
Loading-unloading, Material Handling, Haul road, Transportation, CHP etc	Fugitive Emission	0	Nil	Dust Suppressor, Green Belt, Water Sprinkler,	430 / 215

2. Ambient air quality at the boundary of the industry/unit premises shall be monitored and reported to the Board regularly on quarterly basis: The Ambient air quality norms are prescribed in MoEF gazette notification no. **GSR/826(E)**, dated: **16/11/09**. Some of the parameters are as follows:

- Particulate Matter (less than 10 micron) - $100 \mu\text{g}/\text{m}^3$ (PM10 $\mu\text{g}/\text{m}^3$ 24 hrs. basis)
- Particulate Matter (less than 2.5 micron) - $60 \mu\text{g}/\text{m}^3$ (PM2.5 $\mu\text{g}/\text{m}^3$ 24 hrs. basis)
- Sulphur Dioxide [SO₂] (24 hrs. Basis) - $80 \mu\text{g}/\text{m}^3$
- Nitrogen Oxides [NO_x] (24 hrs. Basis) - $80 \mu\text{g}/\text{m}^3$
- Carbon Monoxide [CO] (8 hrs. Basis) - $2000 \mu\text{g}/\text{m}^3$

3. The industry shall take adequate measures for control of noise level generated from industrial activities within the premises less than 75 dB(A) during day time and 70 dB(A) during night time.

4. Industry/Unit shall provide with each stack port hole with safe platform of 1 meter width with support & spiral ladder/ Stepped ladder with hand rail up to monitoring platform as per specifications given in part-III emission regulation of CPCB. In no case monkey ladder shall be allowed as stack monitoring facility.

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9. Industry shall take effective steps for extensive tree plantation of the local tree species within or around the industry/unit premises for general improvement of environmental conditions and as stated in additional condition

10. Mine management shall setup an online or manual coal ash monitoring system for raw, or blended or beneficiated coal supplied to thermal power plants as per the MoEFCC OM dated 26/08/2015 and submit the report to MPPCB.

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11. Mine management shall install CAAQMS stations at suitable locations to monitor ambient air quality in the leased area and its vicinity and shall provide its suitable unhindered connectivity with Environment Surveillance Centre of the MPPCB and transmit the data within 3 months time.
12. Coal handling plant and coal loading and unloading in railway wagons / trucks should be provided with adequate number of high efficiency dust extraction / suppression system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated. Dust control measures shall be adopted at coal transfer point of the high wall mining machine as per the need.
13. Mine management shall provide continues water sprinkler systems / rain gun at suitable locations on the road side and also provide proper pollution control arrangements to control the fugitive emission generates due to transportation of Coal from CHP.
14. Vehicular emissions should be kept under control and regularly monitored for compliance of emission norms. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.
15. Extensive tree plantation shall be done on both sides of Mineral transportation roads and around mining lease area. The tree plantation shall be carried out in phase manner preferably with local species. Good housekeeping practice shall be adopted by the Mine. More plantations with species like Neem, Pipal, Mango, Jamun, Kathal etc shall be planted.
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21. Mine management shall provide fencing all around the mining lease area to prevent the occurrence of accidental hazard.
23. Mine shall not discharge any industrial effluent to any natural water body.
24. Mine water should be treated to such an extent that quality of water should meet suitable for beneficial uses.
25. Mine shall use all preventive measure to check Air pollution during transpiration of coal by trucks.
26. Regular wetting and sweeping of road should be practice during coal transport.
27. Mine shall utilize fly ash of thermal power plants for back filling of voids as per fly ash notification.
28. Mine management shall ensure that average ash contents in the raw or blended or beneficiated coal supplied to thermal power plants shall not exceed the limit of 34%.

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CONDITIONS PERTAINING TO THE HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016:-

**FORM-2
[See rule 6 (2)]**

FORM FOR GRANT OR RENEWAL OF AUTHORISATION BY STATE POLLUTION CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER AND OPERATORS OF DISPOSAL FACILITIES

1. The operator of facility, i.e. occupier of M/s. **Khairaha Under Ground Mine, S.E.C.L Ltd.** is hereby granted the authorization to operate a facility for collection, reception, treatment, storage, transport and dispose of Hazardous waste to be generated and disposed to the tune mentioned in table below on the premises situated at **Plot No. 126, PO KHAIRAHA , Sohagpur, Distt. Shahdol, - 484110, (M.P.)**

2. The authorization granted to operate a facility for generation, collection, reception, storage and transport of hazardous waste

Details of Authorisation

Category of Hazardous Waste as per the Schedules I, II and III of these rules	Waste Stream	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity (ton/annum)
Used or Spent Oil	(5.1)	To be sold to authorized recycler authorized with SPCB and to be transported by authorized transporter only	3.0-M.T
Wastes or residues containing oil	(5.2)	M.P. Waste Management Project, Pithampur, Dist. Dhar or To be sold to authorized recycler authorized with SPCB and to be transported by authorized transporter only.	0.1-M.T

3. The waste specified under hazardous waste stream as mentioned above shall be stored as per MoEF and CPCB guidelines issued time to time and disposed off as indicated in above table as Hazardous and other Waste (Management & Transboundary movement) Rules, 2016.

4. The authorization shall be in force for a period of **Five years** from **01/01/2019** to **31/12/2024**.

A. General Conditions of Authorisation:

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.

2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.

3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.

4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.

5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;

6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"

7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.

8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation. 54

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9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
12. An application for the renewal of an authorisation shall be made as laid down under these Rules.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

B. Specific conditions:

1. The industry shall display the information on hazardous waste generated on notice board of size 6' x 4' (in Hindi & English) outside the unit main gate along with quantity and nature of hazardous chemicals being handled in the plant, including wastewater, air emission and hazardous wastes.
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The Industry shall maintain the records of hazardous wastes as per the Form-3 of rule 6(5) and should online submit the annual return in Form No.4 as per the rule 6(5) to this office on or before 30th day of June of every year for the preceding period April to March.
4. In the event of any accident due to handling of hazardous wastes, the authorized person must inform immediately to the Regional Office & Head office of the board on Fax/telephone/email- it_mppcb@rediffmail.com about the incident and detail report should be sent in Form No.10 as per rule -22 of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
5. The Industry shall install industrial grade HD IP (Internet Protocol) Pan-Tilt-Zoom (PTZ) Camera with minimum 5X zoom and night vision facility for remote surveillance and constant vigil of emission source and effluent discharge points.

GENERAL CONDITIONS:

MANAGEMENT & DISPOSAL OF FLY ASH

1. THE MINE MANAGEMENT SHALL ENSURE ALL THE COMPLIANCES REGARDING DISPOSAL AND UTILIZATION OF FLY ASH AS STIPULATED IN MoEF&CC NOTIFICATIONS NO. S.O. 763(E) DATED 14/9/99 AND ITS AMENDMENTS VIDE NOTIFICATION NO. S.O. 979(E) DATED 27/8/03, S.O. 2804(E) DATED 03/03/09 AND S.O. 254(E) DATED 25/1/16. SOME OF THE RELEVANT STIPULATIONS ARE AS BELOW:

A. No person or agency shall within radius of 50 kilometers (by road) from coal or lignite based thermal power plants, undertake or approve stowing of mines without using 25% of fly ash on weight to weight basis, of the total stowing materials used and this shall be done under the guidance of DGMS.

B. No agency, person or organisation shall within a radius of hundred kilometers of a coal or lignite based thermal power plant undertake or approve or allow reclamation and compaction of low lying areas with soil; only fly ash shall be used for compaction and reclamation and they shall also ensure that such reclamation and compaction is done in accordance with specifications and guidelines laid down.

C. No person or agency shall within radius of 50 kilometers (by road) from coal or lignite

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based thermal power plants, undertake or approve without using 25% of fly ash on volume to volume basis of the total materials used for external dumps of over burden and same percentage in upper benches of back filling of opencast mines under the guidance of DGMS.

2. The mine management shall submit an action plan for the utilization of fly ash in the mines in compliance of the fly ash utilization within one month's time and shall also provide mining plan containing the provisions for utilization of fly ash in the mine.

3. The non hazardous solid waste arresting in the industry/unit/unit premises sweeping, etc. be disposed off scientifically so as not to cause any nuisance/pollution. The applicant shall take necessary permission from civic authorities for disposal to dumping site. If required.

Non Hazardous Solid wastes:-

Type of waste	Quantity	Disposal
Scrap/ Plastic packing material wood, card board, gunny begs etc	Lumpsum	Sale to authorized party/As Per CPCB. MoEF Guide lines / Others.

4. The applicant shall allow the staff of Madhya Pradesh Pollution Control Board and/or their authorized representative, upon the representation of credentials:

- To inspect raw material stock, manufacturing processes, reactors, premises etc to perform the functions of the Board.
- To enter upon the applicant's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this Consent.
- To have access at reasonable times to any records required to be kept under the terms and conditions of this Consent.
- To inspect at reasonable times any monitoring equipment or monitoring method required in this Consent: or,
- To sample at reasonable times any discharge or pollutants.

5. This consent/authorisation is transferable, in case of change of ownership/management and addresses of new Owner/partner/Directors/proprietor should immediately apply for the same.

6. The issuance of this Consent does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorise any invasion of personal rights, nor any infringement of Central, State or local laws or regulations.

7. Industry shall install separate electric metering arrangement for running of pollution control devices and this arrangement shall be made in such fashion that any non functioning of pollution control devices shall immediately stop electric supply to the production and shall remain tripped till such time unless the pollution control device/devices are made functional. The record of electricity consumption for running of pollution control equipment shall be maintained and submitted to the Board every month

8. This consent is granted in respect of Water pollution control Act 1974 or Air Pollution Control act, 1981 or Authorization under the provisions of Hazardous and other Waste (Management & Transboundary movement) Rules 2016 only and does not relate to any other Department/Agencies. License required from other Department/Agencies have to be obtained by the unit separately and have to comply separately as per there Act / Rules.

9. Balance consent/authorisation fee, if any shall be recoverable by the Board even at a later date.

10. The applicant shall submit such information, forms and fees as required by the board not later than 180 day prior to the date of expiration of this consent/authorisation

11. The industry/unit shall establish a separate environmental cell, headed by senior officer of the unit for reporting the environmental compliances. The industry/ Unit shall submit environmental statement for the previous year ending 31st March on or before 30th September every year to the Board.

12. Industry shall obtain membership of Emergency Response Center of the Board if needed.

13. Knowingly making any false statement for obtaining consent or compliance of consent conditions shall result in the imposition of criminal penalties as provided under the section 42(g) of the Water Act or section 38 (g) of the Air Act.

14. After notice and opportunity for the hearing, this consent may be modified, suspended or revoked by the Board in whole

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Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742

or in part during its term for cause including, but not limited to, the following:

- Violation of any terms and conditions of this Consent.
- Obtaining this Consent by misrepresentation or failure to disclose fully all relevant facts.
- A change in any condition that requires temporary or permanent reduction or elimination of the authorized discharge.

15. On violation of any of the above-mentioned conditions the consent granted will automatically be taken as canceled and necessary action will be initiated against the industry.

Consent/authorization as required under the Water (Prevention & Control of Pollution) Act, 1974, The Air (Prevention & Control of Pollution) Act, 1981 and the Authorization under Hazardous and other Waste (Management & Transboundary Movement) Rules, 2016 is granted to your industry subject to fulfillment of all the conditions mentioned above. For renewal purpose you shall have to make an application to this Board through XGN at least Six months before the date of expiry of this consent/authorization. The applicant without valid consent (for operation) of the Board shall not bring in to use any outlet for the discharge of effluent and gaseous emission.

For and on behalf of
M.P. Pollution Control Board

(Member Secretary)



e-Signed On 18/02/2019 12:30:12
(Organic Authentication on AADHAR from UIDAI Server)
TPAV # Y45EQ56H4X

ACHYUT ANAND MISHRA
Member Secretary

Consent No:AWH-49560,Validity:31/12/2019,Hazd Val:31/12/2024, Outward No:88130,18/02/2019

Contract



Contract No: GEMC-511687769313013

Generated Date: 14-Jan-2022

Bid/RA/PR No: [GEM/2021/B/1472498](#)

Organisation Details	Buyer Details
Type: Central PSU Ministry: Ministry of Coal Department: Materials Management Organisation Name: South Eastern Coalfields Limited Office Zone: Secl Bilaspur Cg	Designation: DM Contact No.: 07752-246321- Email ID: sahil.watta@nic.in GSTIN: 22AADCS2066E9ZL 3RD FLOOR, MM DEPARTMENT, SOUTH EASTERN COALFIELDS LIMITED, PO BOX NO. - 60, SEEPAT ROAD, BILASPUR, CHHATTISGARH-495006, India

Financial Approval Detail	Paying Authority Details
IFD Concurrence: No Designation of Administrative Approval: GM(MM) Designation of Financial Approval: GM(F)	Payment Mode: Offline Designation: Manager Finance Email ID: subhashis.mukherjee@nic.in GSTIN: - FINANCE DEPT, SOUTH EASTERN COALFIELDS LIMITED, PO BOX NO. - 60, SEEPAT ROAD, BILASPUR, CHHATTISGARH-495006, India

Seller Details	
GeM Seller ID:	42B4180000481920
Company Name:	NATURE GREEN TOOLS & MACHINES PRIVATE LIMITED
Contact No.:	09599785277
Email ID:	gitanjali@ngmgf.com
Address:	Khasra No.-963, 965,Dhoom Maikpur,Opp. Amrit Varsha Factory, Gautam Buddha nagar, UTTAR PRADESH-203207, -
MSME verified:	Yes
MSME Registration number:	UP29A0000540
MSE Social Category:	General
MSE Gender:	Female
GSTIN:	09AACC6083B1ZC , 09AACC6083B1ZC

*GST / Tax invoice to be raised in the name of - Consignee

Product Details						
#	Item Description	Ordered Quantity	Unit	Unit Price (INR)	Tax Bifurcation (INR)	Price (Inclusive of all Duties and Taxes in INR)
1	Product Name : Truck Mounted Long Range Mist/Fog Forming Dust Suppression System Mounted On The Truck Chassis Brand : NATURE GREEN Brand Type : Registered Brand Catalogue Status : Catalogue not verified by OEM Selling As : Reseller not verified by OEM Category Name & Quadrant : Truck Mounted Long Range Mist/Fog Forming Dust Suppression System Mounted On The Truck Chassis (Q3) NATURE/Water Mist Cannon HSN not specified by seller	8	pieces	3,816,832	NA	30,534,656
2	Product Name : ICT charges for Truck Mounted Long Range Mist/Fog Forming Dust Suppression System Mounted On The Truck Chassis Brand : NA Brand Type : Unbranded Catalogue Status : Catalogue not verified by OEM Selling As : Reseller not verified by OEM Category Name & Quadrant : Addon Services for bid (Q3) ICT HSN not specified by seller	8	pieces	38,170	NA	305,360
Total Order Value (in INR)						30,840,016

Consignee Detail						
S.No	Consignee	Item	Lot	Quantity	Delivery Start	Delivery To Be

			No.		After	Completed By
1	Designation: - Email ID: jk.prajapati@nic.in Contact: 07653-268336- GSTIN: 23AADCS2066E1ZR Address: Depot Officer, Regional Stores, Johilla Area SECL , Naurozabad Dist:Umaria, Madhya Pradesh - 484555, SHAHDOL, MADHYA PRADESH-484555, India	Truck Mounted Long Range Mist/Fog Forming Dust Suppression System Mounted On The Truck Chassis	-	3	14-Jan-2022	14-May-2022
2	Designation: - Email ID: glaxmannaidu.wcl@nic.in Contact: 07652-250236- GSTIN: 23AADCS2066E1ZR Address: REGIONAL STORE, SOHAGPUR AREA, POST-AMLAI, BEHIND AMLAI POLICE STATION., ANUPPUR, MADHYA PRADESH-484116, India	Truck Mounted Long Range Mist/Fog Forming Dust Suppression System Mounted On The Truck Chassis	-	5	14-Jan-2022	14-May-2022

Product Specification for Truck Mounted Long Range Mist/Fog Forming Dust Suppression System Mounted On The Truck Chassis

Specification	Sub-Spec	Value
Custom Specification	Custom Specification	Yes

Installation Commissioning and Testing (ICT) details for the above item:

% of Product Cost Payable on Product Delivery	80 %
Min Cost Allocation for ICT as a % of product cost	1 %
Number of days allowed for ICT after site readiness communication to seller	30 Days

Seller Specification Document:

1. SpecificationDocument1	mkp.gem.gov.in/catalog_data/catalog_support_document/56/14/065/CatalogAttrs/SpecificationDocument/2021/9/28/2021_09_28_17_06_26_techrial-data-sheet-letter_comp_2021-09-28-17-06-30_692e5c2d467e4a3853d8715f0b153f24.pdf
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Buyer Specification Document:

1. SpecificationDocument	mkp.gem.gov.in/catalog_data/catalog_support_document/buyer_documents/971655/54/78/703/CatalogAttrs/SpecificationDocument/2021/8/27/15361_1626784308950_2021-08-27-13-20-22_a929bd67104be565ae67d789979b036.pdf
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General Clauses w.r.t RCM/FCM

1. Where ever RCM is applicable, for sellers (Regular GST registered seller who opted out of FCM as per notifications of GST like GTA , unregistered seller), Buyer have liability of paying the GST and GST cess to the government on the specified rate mentioned by them in this contract. Seller will invoice buyer with Zero GST and GST cess.
2. For Registered sellers as per FCM, rates will be inclusive of prescribed rate of GST and GST cess. ITC available to buyer as shown in the bid document have been applied while evaluating the bids. Seller has liability of paying the GST and GST cess to the govt and same will be charged from buyer while invoice.
3. For Registered sellers who opted for RCM while quoting for specified category under section 9(3) like GTA rates will be exclusive of GST and GST cess. GST and GST cess as indicated by the buyer in the bid document payment of GST and GST Cess will be the liability of buyer.
4. For Unregistered sellers Liability of payment of GST and GST cess is in Buyers scope. GST and GST cess as indicated by the buyer in the bid document will be the liability of buyer . Unregistered seller will invoice buyer with zero GST and Zero GST cess.
5. For sellers under Composition Scheme: There is no liability of payment of GST and GST cess in Buyers cope. Seller will invoice Zero GST and GST cess in the invoice to buyer.

Terms and Conditions

1. General Terms and Conditions-

1.1 This Contract between the Seller and the Buyer, is for the supply of the Goods and/ or Services, detailed in the schedule above, in accordance with the General Terms and Conditions (GTC) as available on the GeM portal (unless otherwise superseded by Goods / Services specific Special Terms and Conditions (STC) and/ or BID/Reverse Auction Additional Terms and Conditions (ATC), as applicable

1.2 Terms of delivery: Free Delivery at Site including loading/unloading. In respect of items requiring installation and / or commissioning and other services in the scope of supply (as indicated in respective product category specification / STC / ATC), and the cost of the same is also included in the Contract price.

1.2.1 Contracted goods should be delivered at the consignee or designated delivery location as per the working time of the buying organisation. Seller may get the same confirmed from consignee before scheduling delivery.

1.2.2 A copy of the contract should be available with the messenger / dispatching agency that delivers the Goods at consignee / delivery location (preferably pasted / attached outside the consignment / package) for easy reference and ease in delivery acceptance.

1.3 Delivery period: The Delivery Period/Time shall be essence of the Contract and delivery must be completed not later than such date(s). Any modification thereto shall be mutually agreed and incorporated in the Contract as per the provisions of the GTC.

1.4 Performance Security: If the Seller fails or neglects to observe or perform any of his obligations under the contract it shall be lawful for the Buyer to forfeit either in whole or in part, the Performance Security furnished by the Seller.

1.5 Taxes and Duties: Contract Prices are all inclusive i.e. including all taxes, duties, local levies / transportation / loading-unloading charges etc. Break up of GST shall be indicated by the Seller while raising invoice / bill on GeM. While submitting the bill / invoice Seller shall undertake that the Goods and Services Tax (GST) charged on this bill is not more than what is payable under the provision on the relevant Act or the Rules made there under and that the Goods on which GST has been charged have not been exempted under the GST Act or the Rules made there under and the charges on account of GST on these goods are correct under the provision of that Act or the rules made there under.

1.6 Octroi Duty and / or other local taxes: Contract Prices are all inclusive hence no reimbursement over and above the contract price(s) shall be allowed to seller towards payment of local taxes (such as levy of town duty, Octroi Duty, Terminal Tax and other levies of local bodies etc).

1.7 Limitation of Liability: The provisions of limitation of liability between Buyer and Seller as given in the GTC shall be applicable here.

1.8 Resolution of disputes: The provisions of DISPUTE RESOLUTION BETWEEN BUYER AND SELLER as given in the GTC shall be applicable here.

1.9 Liquidated Damages: If the Seller fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract, the Buyer will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 0.5% per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value without any controversy/dispute of any sort whatsoever. In case, Service Level Agreement (SLA) is applicable the same shall be applicable for the Contract.

1.10 Financial Certificate:

1.10.1 The expenditure involved for this purpose has received the Sanction of the competent financial authority.

1.10.2 The funds are available under the proper head in the sanction budget allotment for the concern financial year.

1.10.3 I have been fully authorized by the department to sign the supply order or incur the liability of the Goods being ordered.

1.11 The bidder should submit a self declaration to the effect in bidder's official letter head that their agency have not been black listed by any Agency whatsoever till date.

2. Buyer Added Bid Specific Terms and Conditions-

2.1 Scope of supply (Bid price to include all cost components) : Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)

2.2 Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

2.3 Buyer Added text based ATC clauses

Buyer Added text based ATC clauses:

1.1 Experience Criteria: The Bidder or its OEM {themselves or through reseller(s)} should have regularly manufactured and supplied same or similar category products to any Central/ State Govt. Organization/PSU/Public Listed Company during any 01 (one) financial year, before the bid opening date. Same/similar category product means: Dust Suppression System with mist blower/fog forming long range water sprinkler with horizontal throw of 40 meter (min.) mounted on truck chassis / Truck mounted mist cannon dust suppression system / Truck mounted mist cannon Road Sprinkler / Truck Mounted Fog Cannon Dust Suppression System complete with fog cannon machine, Gun set, water tank, Rear Sprinkler system etc.

1.2. To fulfill experience criteria following document shall be submitted with bid:

1.2.1. Copies of relevant Purchase order(s)/supply order(s)/contracts.

1.2.2. Proof of supply/proof of execution of order. Against proof of supply/proof of execution of order, the bidder can also submit self-certificate that supplies against the submitted Purchase/ supply order(s) has been successfully executed.

1.3. Experience criteria is relaxed for Startup/MSE firms as per GeM terms and condition subject to meeting quality & specification. To claim relaxation, startup/MSE manufacturing firms shall submit relevant documents (with bid) as per GeM terms and condition.

Note: The bidder may also submit documents to establish technical capability with bid (e.g. PO copy for same or higher capacity items/NSIC document covering the offered item, other document showing capability to manufacture the offered item). Buyer has the right to inspect the manufacturing facility/factory for assessing technical capability.

1.4. Upload Manufacturer Authorization: Wherever Authorized reseller/agent/dealer/ distributor is submitting the bid, Authorization issued by manufacturer/OEM shall be submitted along with the bid.

1.5. Inspection: Final inspection shall be done at consignee end before acceptance of equipment.

1.6. Clarification/ shortfall document shall be asked and considered only for the documents related to already submitted documents in the original offer or details/information already indicated in the original offer. Clarification/shortfall document will be sought only for historical documents which pre-existed at the time of bid opening. Further, to fulfil experience criteria, the bidder shall submit document (supply order/purchase

order/contract document) with the bid itself with other relevant documents (e.g. proof of execution of order) as per bid requirement. Any new supply order submitted with clarification/shortfall round will not be considered against experience criteria.

1.7 "Warranty period of the supplied products shall be 01 year from the date of completion of installation, commissioning & testing of goods at consignee location. OEM Warranty certificates must be submitted by successful Bidder at the time of delivery of Goods. The seller should guarantee the rectification of goods in case of any break down during the guarantee period".

2.4 Buyer uploaded ATC document [Click here to view the file](#).

2.5 Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.

2.6

Bidder shall submit the following documents along with their bid for Vendor Code Creation:

- a. Copy of PAN Card.
- b. Copy of GSTIN.
- c. Copy of Cancelled Cheque.
- d. Copy of EFT Mandate duly certified by Bank.

2.7 OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity by up to 25% of the contracted quantity during the currency of the contract at the contracted rates. Bidders are bound to accept the orders accordingly.

2.8 Supplier shall ensure that the Invoice is raised in the name of Consignee with GSTIN of Consignee only.

2.9 1. The Seller shall not assign the Contract in whole or part without obtaining the prior written consent of buyer.

2. The Seller shall not sub-contract the Contract in whole or part to any entity without obtaining the prior written consent of buyer.

3. The Seller shall, notwithstanding the consent and assignment/sub-contract, remain jointly and severally liable and responsible to buyer together with the assignee/ sub-contractor, for and in respect of the due performance of the Contract and the Sellers obligations there under.

2.10 While generating invoice in GeM portal, the seller must upload scanned copy of GST invoice and the screenshot of GST portal confirming payment of GST.

2.11 Without prejudice to Buyer's right to price adjustment by way of discount or any other right or remedy available to Buyer, Buyer may terminate the Contract or any part thereof by a written notice to the Seller, if:

- i) The Seller fails to comply with any material term of the Contract.
- ii) The Seller informs Buyer of its inability to deliver the Material(s) or any part thereof within the stipulated Delivery Period or such inability otherwise becomes apparent.
- iii) The Seller fails to deliver the Material(s) or any part thereof within the stipulated Delivery Period and/or to replace/rectify any rejected or defective Material(s) promptly.
- iv) The Seller becomes bankrupt or goes into liquidation.
- v) The Seller makes a general assignment for the benefit of creditors.
- vi) A receiver is appointed for any substantial property owned by the Seller.
- vii) The Seller has misrepresented to Buyer, acting on which misrepresentation Buyer has placed the Purchase Order on the Seller.

2.12 Timely Servicing / rectification of defects during warranty period: After having been notified of the defects / service requirement during warranty period, Seller has to complete the required Service / Rectification within 15 days time limit. If the Seller fails to complete service / rectification with defined time limit, a penalty of 0.5% of Unit Price of the product shall be charged as penalty for each week of delay from the seller. Seller can deposit the penalty with the Buyer directly else the Buyer shall have a right to recover all such penalty amount from the Performance Security (PBG). Cumulative Penalty cannot exceed more than 10% of the total contract value after which the Buyer shall have the right to get the service / rectification done from alternate sources at the risk and cost of the Seller besides forfeiture of PBG. Seller shall be liable to re-imburse the cost of such service / rectification to the Buyer.

2.13 Successful Bidder can submit the Performance Security in the form of Account Payee Demand Draft also (besides PBG which is allowed as per GeM GTC). DD should be made in favour of SOUTH EASTERN COALFIELDS LIMITED, SEEPAT ROAD BILASPUR payable at AXIS BANK LIMITED, RAMA TRADE CENTER, BILASPUR (C.G.), ACC.NO:914020047244694,IFSC - UTIB0000164.. After award of contract, Successful Bidder can upload scanned copy of the DD in place of PBG and has to ensure delivery of hard copy to the original DD to the Buyer within 15 days of award of contract.

2.14 Buyer Organization specific Integrity Pact shall have to be complied by all bidders. Bidders shall have to upload scanned copy of signed integrity pact as per Buyer organizations policy along with bid. [Click here to view the file](#)

Note: This is system generated file. No signature is required. Print out of this document is not valid for payment/ transaction purpose.

Final Report – December, 2019

3rd Party Assessment of Compliance of Environmental Clearance Conditions imposed by the MoEF&CC, GoI for Khairaha UG Coal Mine of South Eastern Coalfields Limited, Sohagpur Area, Shahdol district, Madhya Pradesh

for



South Eastern Coalfields Ltd.



Prepared and Submitted by



ENVIRONMENT MANAGEMENT DIVISION

Directorate of Extension

Indian Council of Forestry Research and Education

(An Autonomous Body of Ministry of Environment, Forest and Climate Change, GoI)

DEHRADUN – 248 006 (UTTARAKHAND) INDIA

www.icfre.gov.in

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CHAPTER-1

INTRODUCTION

1.1 INTRODUCTION

In the light of compliance of Environmental Clearance Conditions stipulated by the MoEF&CC, GoI for 'Expansion of Khairaha Underground Coal Mining Project from 0.585 MTPA to 0.819 MTPA of M/s South Eastern Coalfields Limited located in District Shahdol, Madhya Pradesh', the General Manager, Sohagpur Area, South Eastern Coalfields Limited (SECL) *vide* its letter No. SECL/SGP/ENVT/2019/57/01 dt.05.04.2019 approached the Indian Council of Forestry Research and Education (ICFRE), Dehradun for a proposal along with estimates of expenditures towards '3rd Party Assessment of Compliance of Environmental Clearance Conditions Imposed by MoEF&CC, GoI for Khairaha UG Coal Mine of South Eastern Coalfields Limited, Sohagpur Area, Shahdol district, Madhya Pradesh'(Annexure-1). Accordingly, the ICFRE, Dehradun submitted a proposal to this effect vide its letter No. 1-23/2006-ADG(EM)/EOI/ICFRE-Part file dated 03.05.2019 to the General Manager, Sohagpur Area, South Eastern Coalfields Limited (SECL) (Annexure-2). Thereafter, the SECL, Sohagpur Area awarded the assignment to the ICFRE, Dehradun vide its letter No. SECL/SGP/ENVT/19/127 dated 07.08.2019 (Annexure-3).

1.2 SCOPE OF WORKS

Scope of works includes the '3rd party assessment of EC compliance imposed by MoEF&CC, GoI for Khairaha UG mines of South Eastern Coalfields Limited, Sohagpur Area, Shahdol District, Madhya Pradesh' in the light of Environmental Clearance accorded to the project vide MoEF&CC letter F.No.J-11015/72/2004-IA-II(M) dated 11.01.2019 (Annexure-4).

Accordingly, as per the assignment, the experts from the ICFRE and its domain experts have conducted the '3rd Party Assessment of Compliance of Environmental Clearance Conditions imposed by MoEF&CC, GoI for Khairaha UG Coal Mine' from 30th October to 5th November 2019. The assessment report has been prepared in the four chapters as outlined below:

- Chapter-1:** Introduction and Background information on Khairaha Underground Coal mine Project.
- Chapter-2:** Assessment Methodology: A detailed description of the assessment process and scope of the assessment.

Chapter-3: Environmental Compliance Assessment: An overview of the assessment including descriptions of compliance and findings from the site inspections.

Chapter-4: Assessment Findings and recommendations.

1.3 BACKGROUND INFORMATION ON KHAIRAHA UNDERGROUND COAL MINE

The South Eastern Coalfields Limited (SECL) is one of the eight subsidiaries of Coal India Limited (CIL) and the largest coal producing company of India with its headquarters at Bilaspur, Madhya Pradesh. The coal reserve of SECL has spread over the states of Chhattisgarh and Madhya Pradesh. There are a total of 89 operational mines under SECL, out of which, 35 mines are in the state of Madhya Pradesh and 54 mines in Chhattisgarh.

The present assessment works was conducted at Khairaha underground coal mine which falls under Sohagpur Area of SECL in the Shahdol district of Madhya Pradesh. Sohagpur Area has seven working mines, out of which two are opencast, four underground and one is mixed mine.

1.4 LOCATION AND APPROACH

Khairaha UG mine is under administrative control of Sohagpur Area of South Eastern Coalfields Ltd. (SECL), a subsidiary of Coal India Ltd. (CIL). This mine is situated in Burhar tehsil, Shahdol district of Madhya Pradesh, India. The State Highway No.14 passes 10 km due NE of the mine area. The Khairaha coal block can be approached from this road by an all-weather feeder road. The nearest rail head is Burhar Railway Station. It is located at a distance of about 13 km due NE of the block. This underground coal mine has leasehold area of 472.065 ha and falls within **Latitude:** 23° 08'08" to 23°10'23" N, **Longitude:** 81°26'48" to 81°28'16" E and is covered under toposheet No. 64E/8 of Survey of India.

1.4.1 Topography, Drainage and Climate

The Khairaha Coal Block has a gentle rolling topography with a general slope towards North. The variation in surface elevations, excluding nala cuttings, is from 509 m to 479m above MSL. The area is situated in the drain valley of Son River.

The Jamunia and Baisaha/Sarpha *Nalas* flows in the Eastern and Western boundaries of the coal block respectively, along with a number of seasonal streamlets, drain the area and finally discharge their water into river Son near village Nabalpur about 15 km North of Khairaha Coal Block.

The area is characterized by a tropical climate. The average annual rainfall in the area was reported as 1298 mm. Two perennial *Nalas* i.e. Baisaha and Sarpha *Nalas* are flowing along the eastern and western boundary of the mine block towards the north. The maximum and minimum temperature range from 46⁰ C (June) and 0⁰C (January)

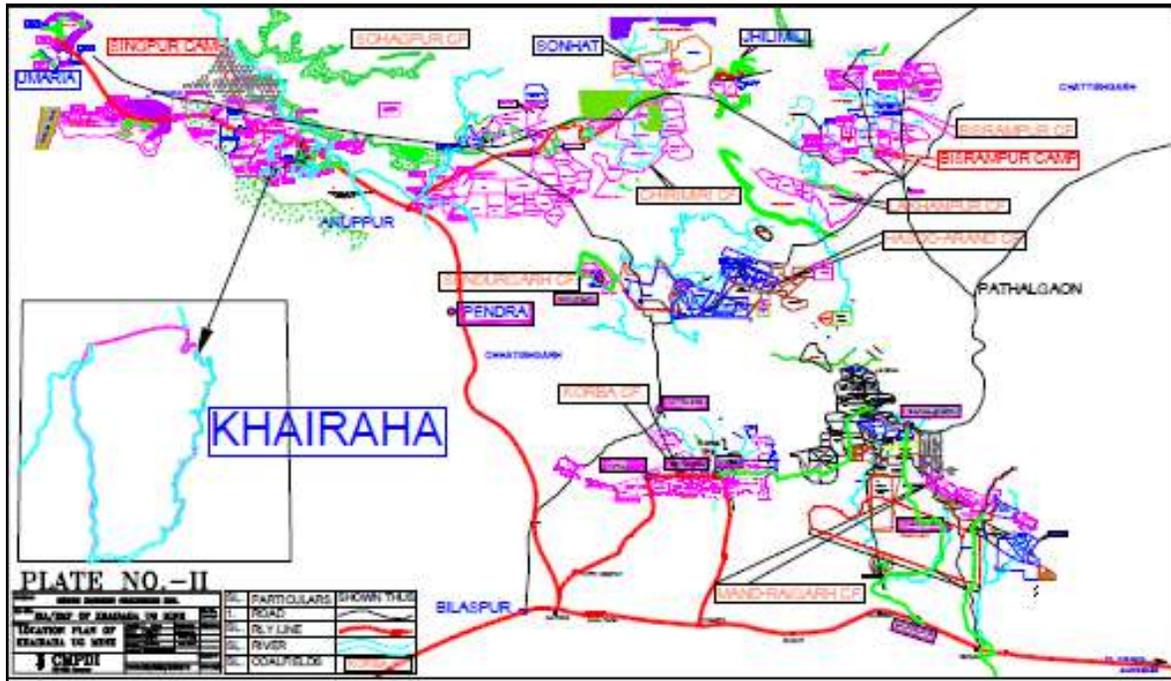


Figure 1: Location Plan of Khairaha UG Mine
(Source: EIA/EMP for 0.819 MTPA for Khairaha UG Expansion)

1.4.2 Geology of the Mining Block

1.4.3 **Geological Boundary:** The Geological block boundary is defined as follows:

- In the **North** - E-W trending fault F1,
- In the **South** - Burhar-Hardi road,
- In the **East** - Baisaha & Jamunia *Nalas* and
- In the **West** - Sarpha *Nala*

1.4.4 Geology of the Coalfields:

Regional setting:

The Sohagpur Coalfield can be broadly divided into two parts i.e. the North and South Sohagpur, along the E-W trending intrabasinal Bahmni-Chilpi fault. The North Sohagpur represents the down thrown block of the Sohagpur basin where coal measures are surmised to occur at depth under a thick cover of younger Upper Triassic sediments termed as Supra-Barakars.

The coal horizons in South Sohagpur are either exposed or occur under a thin cover of younger sediments, except in the South-West, where it is overlain by a thick Lameta Formation and Traps. In South Sohagpur, three sub basins namely, Jhagrakhand, Jamuna-Kotma & Amlai-Burhar, from east to west, have been recognised. Sohagpur Coalfield has been a traditional source of superior quality, low rank, high volatile coals. Such coals have been under active exploitation in the entire tract in South Sohagpur.

Local setting:

Khairaha Block is located in Amlai-Burhar sub-basin of South Sohagpur Coalfield. The sub-basin extends from Bairihia village (81°43'44" & 23°17'25") in the east to perhaps below the Infratrappean Lameta Formation and the Deccan Trap in the West.

The Amlai-Burhar sub-basin preserves about 300m of Barakar strata. Of this, the basal 160-200 m of Barakar formation is devoid of workable coal seams. It contains 9 correctable coal horizons of which only six have attained workable thickness in one or the other part of the area. The Barakar strata in the deeper part of the sub-basin are covered by younger sediments. Lameta Formation occurs as thin cappings, both over Barakars and Supra Barakars.

The strata of Amlai-Burhar sub-basin exhibit a centripetal dip varying from sub-horizontal to around four degree. The prominent structural features is the presence of a set of faults and dolerite dyke aligned in E-W direction in between Bikram block & Burhar mine on the north and Chachai-Dhanpuri OC- Bangwar-Karkati block to the south.

The area is mainly covered by rocks of Barakar Formation under 1m to 18m thick blanket of soil and alluvium. Rock exposures are largely confined to nala sections. Supra Barakars have been found to occur in the Northern part of the area over Seam-IX. Lameta occurs as thin cappings over Barakars and Supra-Barakars in isolated patches. The stratigraphic sequence of the block, established from surface and sub-surface data is given below.

Stratigraphic Succession, Khairaha Block

Age	Formation	Lithology
Recent/Sub-Recent		Soil & Alluvium (1 to 18 m)
^^^^^^^^^^^Unconformity^^^^^^^^^^^		
Eocene	Deccan Trap	Dolerite dykes & sills
Upper Cretaceous		
^^^^^^^^^^^Unconformity^^^^^^^^^^^		
Upper Cretaceous	Lameta	Calcareous sandstones and nodular limestone (Upto 25m)
^^^^^^^^^^^Unconformity^^^^^^^^^^^		
Upper Triassic	Supra Barakars	Pink & buff coloured sandstone and variegated shales (Upto 23m).
Lower Permian	Barakar	Greyish white coarse grained sandstone with a few coal seams, carbonaceous shale and shale bands

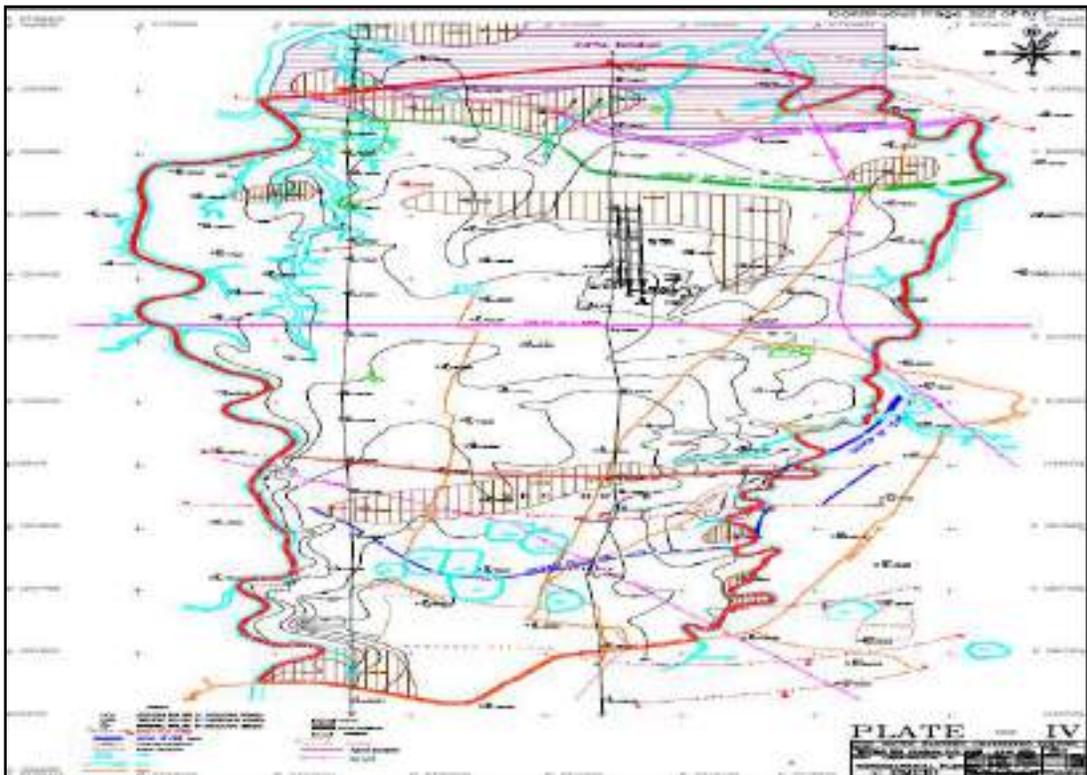


Figure 2: Geological map of the Khairaha UG
 (Source: Mining Plan for 0.819 MTPA of Khairaha Undergrond mine)

The strata being soft, the depth of weathering extends as much as 29 metre below the surface. The general depth range of detrital cover is about 15 to 20 metre.

1.5 BASELINE INFORMATION OF KHAIRAHA UNDERGROUND MINE

Khairaha Underground mine is a working mine of Sohagpur area of SECL. The mines of Sohagpur area were in operation after nationalization. There are seven mines in this area out of which two mines are open cast, four underground and one mixed type. The present scenario of coal mines in Sohagpur area is given in Table 1.1.

Table 1.1: Present scenario of coal mines in Sohagpur Area

S. No.	Name of the mine	OC/UG	Production Capacity (MTPA)		ML area (Ha)	Life of Mine (Years)
			Normative	Peak		
1	Khairaha	UG	--	0.819	472.065	17
2	Rajendra	UG	--	0.625	590	14
3	Bangwar	UG	--	0.65	496.647	20
4	Damni UG	UG	--	0.48	335	16
5	Amlai OC Sec B	OC	1.5	2.025	190.995	6
6	Dhanpuri OC	OC	2	2.725	1075.78	3
7	Sharda Highwall	Mixed	--	0.85	871.205	12
TOTAL			3.5	8.174	4031.692	

1.5.1 Status of Mining Lease

Based on the Coal Bearing Areas (Acquisition and Development) Act, 1957 (20 of 1957), the land is acquired for Government Companies only for coal mining and activities strictly are incidental to mining purposes. Presently 478.89 ha land have been notified under Section 9(i) of CBA. The present expansion proposal for production of 0.819 MTPA in phase-1 is for an area of 472.065 ha excluding 6.825 ha of forest land which was notified under CBA. As on date 11.432 ha has been acquired for infrastructure and approach road, remaining land shall be acquired during depillaring stage of the mines.

1.5.2 Land Status

The status of present land use for Khairaha UG coal mine is as under:

Present Land Use of Khairaha UG Mine

S. No.	Land Use	Area (ha)
1.	Agricultural Land	424.785
2.	Forest Land	0
3.	Waste Land	25.699
4.	Grazing Land	0

S. No.	Land Use	Area (ha)
5.	Surface water bodies	1.295
6.	Settlements (Infra.& Road)	10.239
7.	Settlements(Infra.& Road) Outside ML Area	1.193
8.	Others (Govt. Land)	8.854
	Total	472.065

(Source: Mining Plan for 0.819 MTPA, November, 2017)

The status of pre-mining land use for Khairaha UG coal mine is as under:

Pre mining Land Use for Khairaha UG Mine

S.No.	Land use	Within ML Area (ha)	Outside ML Area (ha)	Total (ha)
1.	Agricultural Land	424.785	--	424.785
2.	Forest Land	--	--	--
3.	Waste Land	25.699	--	25.699
4.	Grazing Land	--	--	--
5.	Surface water bodies	1.295	--	1.295
6.	Settlements(Infra.& Road)	10.239	1.193	11.432
7.	Others (Govt. Land)	8.854	--	8.854
	Total	470.872	1.193	472.065

(Source Mining Plan for 0.819 MTPA, November, 2017)

The status of Post-mining land use for Khairaha UG coal mine is as under:

Post Mining Land Use for Khairaha UG Mine

S. No.	Particulars	UG quarry Area (ha)	Safety zone (ha)	Infrastructure (ha)	R&R Site (ha)	Land for Nala diversion (ha)	Total (ha)
1	Afforestation	--	6.00	2.00	--	--	8.00
	Cultivable land	453.338	--	--	--	--	453.338
	Water body	--	--	--	--	--	--
	Other void area	--	--	--	--	--	--
	Other water bodies	1.295	--	--	--	--	1.295
	Built up area	--	--	9.432	--	--	9.432
Total		454.663	6.000	11.432	--	--	472.065

(Source Mining Plan for 0.819 MTPA, Nov 2017)

1.5.3 Statutory Clearances

(i) Status of Mining Lease:

Based on the Coal Bearing Areas (Acquisition and Development) Act, 1957 (20 of 1957) the land is acquired for Government Companies only for coal mining and activities strictly are incidental to mining purposes.

(ii) Forest Clearance

The forest land measuring 6.825 ha falling within the leasehold area is excluded from the present land use of the lease area and mining of the coal will not be conducted in the underground of this excluded area.

(iii) Environmental Clearance

EC was granted by MoEF&CC *vide* letter No. J-11015/72/2004-IA-II(M) Date 28th July 2005 initially for production capacity of 0.585 MTPA. Thereafter, EC was granted for expansion of production capacity from 0.585 to 0.819 MTPA *vide* MoEF&CC letter no J-11015/72/2004-IA-II(M) Date 11th January 2019.

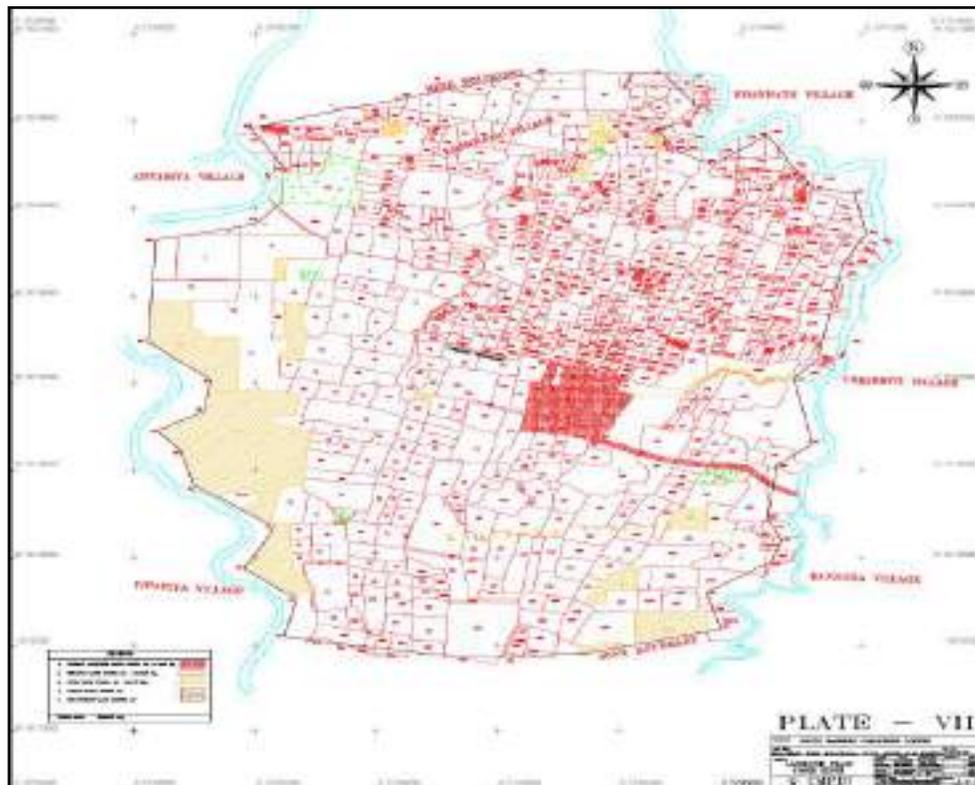


Fig -1.3 Land Use Plan of Khairaha Underground Mine
(Source: EIA/EMP for 0.819 MTPA of Khairaha Undergrond mine)

(iv) Consent to Establish for 0.819 MTPA

Issued to project from MPPCB *vide* letter No. CTE-49416 valid up to 30.11.2019 available.

(v) Consent to Operate for 0.819 MTPA (Under Air, Water and Hazardous Waste)

Issued to project from MPPCB *vide* letter No.AWH-49560 valid up to 30.12.2019 available.
Hazardous waste validity 31.12.2024.

(vi) Permission from DGMS/ Coal Controller

Project obtained permission *vide* letter No. Nil. dated 31.3.2009 for opening up Seam VII and VI Bottom at Khairaha U.G. Mines at Sohagpur Area.

DGMS Permission for degree of Gassiness of Seam VII *vide* letter No.3574 dated 23.08.2011 by Jabalpur region.

DGMS Permission for degree of Gassiness of Seam VI bottom *vide* letter No.3805 dated 27.10.2015 by Jabalpur region.

DGMS Permission for development of panels in seam VI Bottom *vide* letter No. Nil. dated 23.05.2019.

(vii) Project Report/Mining Plan

Initially, a project report was prepared with a capacity of 0.48 Mty considering the semi-mechanized technology (by SDL) and submitted to SECL in February, 1999. The desired level of IRR could not be achieved. Hence, it was not approved at Board level.

The next project report was prepared by CMPDI in Sep. 2002 with a capacity of 0.585 Mty considering one continuous package and it was approved on 25th September 2003 by CIL Board *vide* its letter No.SECL/BSP/CGM(P&P)/BOARD/40 dated 18/19-02-2004 with an initial capital outlay of Rs.88.3303 Crores.

This mining plan is being prepared to enhance the Production capacity from 0.585Mtyto 0.819 Mty. One additional continuous miner package on hiring basis is being proposed in Khairaha UG mine to enhance the production capacity and utilization of existing resource and infrastructure.

1.5.4 Exploration

The area of the geological block envisaged above is 7.2 sq.km. A total of 123 boreholes, drilled in and around the block, have been considered for preparation of the Geological report of this block. Number of boreholes within the block boundary is 90. Out of this, DGM (MP) and CMPDIL have drilled 13 nos. & 77 nos. respectively. Borehole density is about 12.5

boreholes/sq.km. The total meterage of drilling is 13961.66m. Out of which 10560.61 m drilling is within the block boundary and rest 3400.05 m is in adjoining to the block boundary. The details are given in Table 1.2.

Table 1.2 Details of Bore holes in Khairaha Coal Block

Boreholes	DGM (MP)		CMPDIL		Total	
	No. of BH	Meterage	No. of BH	Meterage	No. of BH	Meterage
i) Within block boundary	13	1666.21	77	8894.40	90	10560.61
ii) Adjoining block boundary	10	931.60	23	2468.45	33	3400.05
Total	23	2597.81	100	11362.85	123	13960.66

(Source Mining Plan for 0.819 MTPA, November, 2017)

1.5.5 Geological and Mineable Reserves

Within Khairaha Geological block, the net *in situ* geological reserves of the three potential coal seams have been summarised in tabular form below. The total 'net' proved coal reserves (having seam thickness more than 1.2 m) available for underground exploitation have been assessed at 53.042 Mt. The share of Seam-VII, Seam-VIB and Seam-V in the total reserves is 13.950 Mt, 26.163 Mt & 13.289 Mt respectively. Of the total reserves of 53.042 Mt, the effective reserves are 45.915 Mt only. The balance reserves of 7.127 Mt are blocked under village, pond, Nala, road and statutory barrier along them. Details are given in Table 1.3.

Table 1.3. Summary of coal reserves in different grades, Khairaha Coal Block (Considering Sector A, B & C)

Effective Reserves	Proved 'net' reserves in Mt.					
	Grade B	Grade C	Grade D	Grade E	Grade F	Total
Seam-VII(C)	0	0.526	6.435	1.525	0.039	8.525
Seam-VII(T)	0	1.263	1.798	0	0	3.061
Seam-VI(B)	0.117	13.560	8.467	1.044		23.188
Seam-V		0.069	7.005	3.489	0.578	11.141
Total	0.117	15.418	23.705	6.058	0.617	45.915
Blocked Reserves						
Seam-VII(C)	0	0.169	0.893	0.764	0.017	1.843
Seam-VII(T)	0	0.028	0.133	0	0	0.161
Seam-VI(B)	0.024	1.252	1.534	0.165	0	2.975
Seam-V	0	0.136	1.581	0.386	0.045	2.148

Effective Reserves	Proved 'net' reserves in Mt.					
	Grade B	Grade C	Grade D	Grade E	Grade F	Total
Total	0.024	1.585	4.141	1.315	0.062	7.127
Grand Total	0.141	17.003	28.846	7.373	0.679	53.042

(Source: Mining Plan for 0.819 MTPA, November, 2017)

1.5.6 Extractable Reserves (As on 01.04.2017)

General Thickness, grade and extractable reserves of coal seam:-

The thickness and grade of coal seams (considering Isochore and Isograde line envisaged in geological report) and details are given in Table 1.4.

Table 1.4 Mineable/Extractable Reserves

SEAM	General Thickness Range (m)	Grade (old)	Grade (GCV)	Development Reserve (Mte)	Depillaring Reserve (Mte)	Total (Mte)
SEAM-VII (Comb.) CM PANEL	2.25-4.67	D, LF	G8	1.47	1.35	2.82
SEAM-VII,VII (Top)	1.5-2.0	C/D, LF	G8	0.56	0.61	1.17
SEAM-VIB	2.07-4.67	C, LF	G7	5.91	4.07	9.98
Total				7.95	6.03	13.97

(Source Mining Plan for 0.819 MTPA, Nov 2017)

Total extractable coal reserve is 13.972 Mte. In seam VII, the extractable reserves works out to be 3.985 Mt. Out of which 2.81 Mt is for CM (Standard Height) and remaining 1.17 Mt is for thin zone may be extracted by SDLs or low height CM.

1.5.7 Seam Sequence, Thickness and OB parting

A study of bore hole data reveals that of the nine (9) co-relatable carbonaceous horizons present in Amlai-Burhar sub-basin, only five (5) coal horizons viz., Seam IX, Seam VIII, Seam VII, Seam VIB & Seam V have attained identifiable thickness in Khairaha Coal Block. Details are given in Table 1.5.

Table 1.5: The sequence of coal seams, their thickness variation and range of inter seam partings in the block

Coal Seam	Thickness range (m)		General thickness range (m)	Remarks
	Min.	Max.		
Seam IX	0.45	1.77	<1.2	Highly interbanded, unworkable & inferior quality.
Parting	9.65	16.28		
Seam VIII	0.4	1.9	<1.2	Has attained workable thickness in two small patches.
Parting	53.45	60.9		
Seam VII	2.25	4.72	3.6±0.6	Considered in project report. Splits towards south. Top split :UD to 2.28m. Parting up to 13.05m Bottom split : UD to 2.59m; unworkable.
Parting	24.64	32.2		Seam VIT not identifiable.
Seam VIB	1.14	4.67	2.9±0.7	Considered in project report. Reduces to unworkable height towards southwest.
Parting	7	26.1		
Seam V	0.48	3.19	1.8±0.5	Unworkable height in the western part of the area. It has attained workable thickness in central and eastern part of area having E grade coal as per approved PR. If technology and economy permits it may be considered in future working.

(Source: Mining Plan for 0.819 MTPA, November, 2017)

Seam-IX

Seam IX is the topmost coal horizon in the area. It subcrops close to the northern boundary of the block and occurs within a depth range of 10 to 36 metre below surface. Seam IX is 0.45 to 1.77m thick. This seam is observed to have unworkable thickness over a large spread. Only in a small area around borehole CMKH-69, the seam has attained effective workable height of above 1.2 metre. Seam is highly interbanded in nature. Often the carb. shale bands exceed the shaly coal & coals in thickness, rendering the entire seam unworkable from mining angle. At times the entire seam is represented by carbonaceous shale alone or consisting of a thin shaly coal band. Seam-IX coals are of grade E and inferior in quality. The seam does not have any mining potentiality in the block. The weighted average GCV worked out to be 3628 i.e. G-13.

Seam-VIII

Seam VIII incrops/subcrops in the Northern part of the block. It underlies 9 to 16 metre below Seam IX and occurs at a depth range of 15 to 48 m within the block area. The seam is 0.4 to 1.9 m thick. The seam is largely thin and has attained workable thickness of 1.2 m and above in two small isolated patches. The seam is free of dirt band. The seam in general contains grade C coals over its workable spread. Occurrence of workable thickness in two small patches renders the seam techno-economically unviable for exploitation. The weighted average GCV worked out to be 6058 *i.e.*, G-5.

Seam-VII

Seam VII incrops in the Southern part of the area and occurs at a depth of about 106m from the surface within the block boundary. The workable thickness of the seam is however, available from a depth of 45 metre. Its parting with the overlying Seam-VIII varies from 53.5 m to 60.9 m. The seam occurs as a composite horizon in the Northern part of the area. It splits into two sections towards south. In the split area, only the top section is workable over a small spread close to the line of split. Further South, the top split thins down.

The bottom section tapers out within a very short distance of its split and do not offer any mineable reserves. The maximum parting recorded between the two splits in borehole CMKH-45 is 13.05 m. The weighted average GCV worked out to be 5024 *i.e.*, G-8

Dirt Band

From a study of the seam structure, the composite Seam-VII is observed to contain in general two carb. shale bands about 1.2 to 2.3 m and 0.2 to 1.3 m above seam floor. The thickness variation of these carb. shale bands is from 0.05 to 0.57 m (Top) and from 0.10 to 0.62 m (Bottom) respectively. Both the bands often grade to shaly coal and coal. Seam VII top is free of dirt bands.

Quality

1. Proximate analysis

The general quality variation of Seam VII (Top) over its workable spread is grade C to D. The summarised quality variation of Seam VII (combined) and Seam VII (top) are given below:

Particulars	Proximate analysis at 60% RH & 40°C			UHV K.Cal/Kg.	Grade on UHV
	M%	A%	VM%		
I. Seam VII comb.					
Range Min.	7	16	23	2,911	F
Max.	10	34	33	5,436	C
No. of samples	24	24	24	24	24
A.M.	9	23	28	4,482	D
S.D.	1	4	2	536	
II. Seam VII (Top)					
Range Min	7.4	15.0	26.0	4360	D
Max.	11	23	30	5,395	C
No.of samples	11	11	11	11	11
A.M.	10	19	29	4,879	D
S.D.	1	2	1	372	

(Source: Mining Plan for 0.819 MTPA, November, 2017)

2. Ash fusion range & HGI		
Particular	From	To
Softening temp. °C	1140	1210
Hemispherical °C	1390	1400
Flow temp. °C	1400	1400
HGI (Ex. dirt)	44	47

Seam-VI (Bottom)

The seam occurs at a depth range of 25 m to 140 m (CMKH-50) within the block boundary. Its parting with the overlying Seam-VII (combined) and Seam-VII (Top), over its workable spread varies from 24.6 to 32.2 m and 33.0 to 52.0 m respectively. The seam exhibits a wide variation in its thickness from 1.14 to 4.67 m. The general thickness of this seam is observed to range within 2.9 ± 0.7 m. Towards North-East and West, the seam shows a gradual reduction in its thickness and in the South-Western part of the area, the seam reduces to unworkable height and laterally grades to an argillaceous facies around boreholes CMKH-32 and MPK-7. The weighted average GCV worked out to be 5429 i.e.G-7

Dirt band: Of the 88 boreholes intersecting Seam VI Bottom, one to two dirt bands have been observed in only 21 boreholes concentrated over three small patches around (i) CMKH-8, 52, 55 & 48 in the north eastern part, (ii) CMKH-17, 47, 63, 20, 79 and MPK-8 in the western part and

(iii) CMKH-35, 37, 23, 62, 28, 26, 64, 74, 27, 24 & 40 in the southern part of the area. In general, the dirt bands composed of carb. shale, grey shale & shaly sandstone occur close to the roof and their thickness is observed to vary from 0.05 m to 0.42 m.

Quality

1. Proximate Analysis:

The seam in general contains grade C and grade D coals. A summary of the quality variation of Seam VI Bottom over its workable spread is given below:

Particulars	Proximate analysis at 60% RH & 40° C			UHV K.Cal/Kg.	Grade on UHV
	M%	A%	VM%		
Seam VIB					
Range Min.	5.8	12.9	22	3477	E
Max.	11.2	33.5	29.1	5919	B
No.of samples	67	67	67	67	67
A.M.	8.9	19.9	26	4936	D
S.D.	1.1	4.1	1.7	515	

(Source: Mining Plan for 0.819 MTPA, November, 2017)

2. Ash fusion range & HGI		
Particular	From	To
Softening temp. °C	1110	1210
Hemispherical °C	1370	1400
Flow temp. °C	1400	1400
HGI (Ex. dirt)	46	51

Seam-V

Seam-V occurs at a depth range of 50 to 160 m within the block boundary. It's parting with the overlying Seam-VI Bottom, varying from 7.0 m to 26.0 m, increases from East to West.

Seam-V is 0.48 m to 3.19 m thick. The seam has a workable height in the central and Eastern part of the area. Its general thickness variation over its workable spread is 1.8 ± 0.5 m. In the Northern part of the area and along the Western boundary of the block, the seam has unworkable height. The weighted average GCV worked out to be 4766 *i.e.*, G-9.

Dirt band: The seam in general contains two dirt bands composed of carb. shale, shale and sandy shale. The dirt bands usually occur close to floor of the seam. The cumulative thickness of the dirt bands varies from 0.05m to 0.59m.

Quality

1. Proximate Analysis

Seam-V largely contains grade D&E coals. The summarised quality variation of the seam over its workable spread is given below:

Particulars	Proximate analysis at 60% RH & 40°C			UHV K.Cal/Kg.	Grade on UHV
	M%	A%	VM%		
Range					
Min.	6	17	22	2,566	F
Max.	10	40	29	5,298	C
No.of samples	39	39	39	39	39
A.M.	3	26	26	4,247	D
S.D.	1	5	2	664	

(Source: Mining Plan for 0.819 MTPA, November, 2017)

2. Ash fusion range & HGI		
Particular	From	To
Softening temp. °C	1160	1220
Hemispherical °C	1400	1400
Flow temp. °C	1400	1400
HGI (Ex. dirt)	47	51

Long Flame Characteristics

Seam VII and Seam VIB have long flame characteristics while Seam-V is not expected to behave as long flame coal.

1.5.8 Fault

Three numbers of E-W trending normal faults (F1 to F3) have been deciphered in the area. The dip of the faults has been considered 60°.

Sl. No.	Fault	Trend	Throw Direction	Throw Amount	Extent	Evidence
1	F1	E-W	Northerly	20m near CMKH-52 throw decreases in either direction	From NE of CMKH-52 and beyond in the East to SW of CMKH-54 & beyond in the East.	Omission of Seam-VIII in MPK-17
2	F2	E-W	Southerly	10m near CMKH-39A; throw decreases towards west.	From SE of CMKH-73 and beyond in the East to West of MPK-10 & beyond in the West.	Reflected by difference in floor levels of coal seams in MPK-10, CMKH- 34, 39A & 73 and CMKH-36, 76 & 64.
3	F3	E-W	Northerly	12m near CMKH-26 throw decreases towards east.	From NE of CMKH-27 and beyond in the East to West of CMKH-36 & beyond in the west.	Reflected by difference in floor levels of coal seams in CMKH-36, 76 & 26 and CMKH-25, 38 & 27.

(Source: Mining Plan for 0.819 MTPA, November 2017)

1.5.9 Igneous intrusive

Dolerite has been intersected in boreholes CMKH-8, 25, 36, 49 & 69. Three of these boreholes namely CMKH-8, 49, & 69 are located close to the northern boundary of the block while the balance two viz. CMKH 25 & 36 are located in the south-western part of the area. From isolated intersection of dolerite body at different locales, the intrusive body is surmised to have a discordant relation with the host rock. Some more isolated dykes may be available in the area.

Surface Constraints:

As per the data furnished, surface constraints are as follows:

- (1) A 220 KV H.T line passes over the proposed property.
- (2) Mostly covered by Agricultural land except small area as revenue forest.
- (3) No village is located within the property.
- (4) The property is bounded by two nos. of *Nala*. Baisaha/Jamunia *Nala* is on the eastern side and Sarpha *Nala* is on the western side. Towards northern side, few tributaries are also originates from the property and joins with the above mentioned *Nalas*.
- (5) Few ponds are also located in scatter in the area.
- (6) A village road crosses the property from south to north direction.

1.6 Roof & Floor Strata of Coal Seams

Seam wise lithology of roof and floor rocks up to 3 m and 1 m respectively are given in Table 1.6.

Table 1.6: Seamwise lithology of roof and floor rocks upto 3 m and 1m respectively are given below

Coal Seam	Roof (up to 3m)	Floor (up to 1 m)
Seam IX	Carbonaceous shale overlain by shale or clay. Often clay and shale forms the immediate roof. In CMKH-3 & 50 sandstone forms the immediate roof.	Sandy shale and carbonaceous shale followed by sandstone. In CMKH-48 & 50 fine grained sandstone forms the immediate floor. In a lone borehole CMKH-11A, the immediate floor is intercalated shale & sandstone.
Seam VIII	Coarse grained sandstone. In CMKH-53 limestone forms the immediate roof.	Sandy shale and sandstone. In CMKH-8 & 55, intercalation of shale & sandstone, shale and shale respectively forms the immediate floor.
Seam VII Comb.	Coarse grained sandstone. In a lone borehole CMKH-5, carbonaceous shale forms the immediate roof.	Fine grained sandstone and sandy shale. Often shale & carbonaceous shale occasionally followed by thin coal bands forms the floor.
Seam VII (Top)	Coarse grained sandstone. In CMKH-33 the immediate roof is clay overlain by sandstone.	Shale and sandy shale. Often fine grained sandstone forms the immediate floor.
Seam VI (Bot)	Mainly coarse grained sandstone. In isolated patches, carbonaceous shale, shale, sandy shale and alternate shale & sandstone forms the immediate roof and is overlain by sandstone. A thin coal band is generally observed within 3m of roof strata.	Shale and sandy shale, often containing thin coal bands, followed by sandstone. In isolated patches, sandstone forms the immediate floor.
Seam V	Sandstone of varying grain size. In the central and southern part of the workable spread of seam the immediate roof is shale, sandy shale and carbonaceous shale, often containing a thin coal band, and it is overlain by sandstone.	Shale and sandy shale containing a thin coal band. Often carbonaceous shale, alternate shale & sandstone forms the immediate floor.

(Source: Mining Plan for 0.819 MTPA, November 2017)

1.7 Mining Operations

1.7.1 Location of Mine Entries

This is an operating ongoing mine. The mine has presently two working seams *i.e.*, Seam-VII and Seam-VIB. The production from the mine started since 26.03.2012 by deploying SDL and presently coal is being exploited from the Seam-VIB by deploying one set CM.

The mine entries have been provided for adequate access to the seam considered for exploitation and to ensure adequate ventilation, effective transport and pumping system. The location of mine entries is free from obstruction, as near as possible to railway siding/stock yard or CHP. The location is also easily accessible from State highway and other road.

1.7.2 Mode of Mine Entries

Details of mine entries/ inclines are given in Table 1.7.

Table 1.7. Details of the inclines.

S.No.	Shaft / Incline	Purpose	Dimension (width, height gradient & length)
1.	Incline No.1	Coal transport & travelling, Main Intake airway	4.8 m x 3 m, 1 in 4.5, Total length-490 m.
2.	Incline No.2	Material transport, Main Intake airway	4.8 m x 3 m, 1 in 4.5, Total length-490 m.
3.	Incline No.3	Main Return airway	4.8 m x 3 m, 1 in 4.5, Total length-490 m.

(Source: Mining Plan for 0.819 MTPA, November, 2017)

1.7.3 Method of work

Based on Geological characteristic of various seams encountered in the lease hold area (seam thickness, depth of seam, strata condition, dip of seam and its extent, presence of fault, water seepage etc.), the mine has been planned to be worked out on Board & Pillar method by deploying Continuous Miner Package and one SDL Panel for main dip development and thin zone area/(left out area), where CM cannot be deployed. The proposed support system is roof bolting in development and depillaring districts. However, support design in continuous miner district has been scientifically assessed and designed by scientific agency and duly approved by DGMS. For the second set again duly approved support design may be considered or may be reviewed as per the directives of DGMS.

1.8 PRESENT STATUS OF MINE

Seam-VII (Top & Comb.) and Seam VI Bottom have been proposed for working by underground method of mining. Seam-VII (Top & Comb.) is the top most workable Seams followed by underlying VI Bottom seam. The panels of these seams are nomenclature by letter Tand B respectively (as shown in working plan). Panels have 5 headings and pillar size and width of gallery as per statute and Practices in CM faces in Indian coal mines duly approved by DGMS.

DGMS has approved 6m wide gallery and 4.5 m height or seam thickness whichever is less for development panels and cut off distance of 14 m.

In the approved project report, Board & Pillar method with two technologies i.e., with Continuous Miner in both seams and SDL technology for low thickness zone in seam VII/main dip development had been proposed. Target production from mine envisaged was 0.585 Mty (About 1550 tpd by CM package by operating one panel, and another panel with SDL production 400 tpd).

1.9 PRESENT MINING PLAN

In this approved revised Mining plan two sets of CM packages (one existing and second new set) and SDL (for two years have been proposed and one SDL required for as and when use basis for dip side and left out area development and cleaning purpose after two years) is being proposed. The production from existing CM package is 0.465 Mty and in one additionally proposed CM for low thickness range, would be 0.354Mty (Production from low height CM range owing to water nature low thickness of seam and EC restriction under 7 (ii) without public hearing it is to be in proposed 0.354Mty only.

Total production from the mine works out to be $0.465+0.354= 0.819$ Mty (i.e. 40 % enhancement of the existing EC capacity of 0.585 Mty).

1.10 METHOD OF MINE DEVELOPMENT

1.10.1 Main Dip Development in Seam -VII &VI (B)

The main dip is being developed by five heading drivages in both seam-VII (top & comb) and VI (B). The pillar size is considered as 26.4 m x 26.4 m centre to centre and width of each gallery would be 4.8 m. In seam-VII (top), as per existing mine working plan and PR, the average height of main dip trunk headings have been considered as 1.8 m i.e. existing seam thickness in splitted coal seam and in combined seam, it is +2.0m in the rest part of main dip. However, for transport of CM Package into working district in one of the main dip trunk headings (1 Dip/west) has been suitably heightened up to 3.0 m all along, wherever it required for smooth movement of CM package.

In seam-VI (B), the average working height of main dip is considered as 3.0 m. Where seam thickness is more than 3.0m, working height of main dip trunk headings will be restricted to 3.0 m, if more the statutory permission should be obtained from DGMS during development.

Initially dip side of main dip of seam-VII (Comb) & its panels would be extracted by Continuous miner and then the equipment would be shifted to lower seam-VI (B). The gradient of main dip headings, in both seam, varies from 1 in 15 to 1 in 30.

1.10.2 Main dip length

The total plan length of main dip of seam-VII (in top section & combined) is 1560 m. Out of this, the rise side main dip length from coal touch point is 600 m. The length of main dip towards dip from the coal touch point is 960 m approximately. The total plan length of main dip of seam-VI (B) is 2680 m. The length of main dip towards dip from coal touch point is 820m and towards rise side, the length is about 1860m.

1.10.3. System of Panel development in Seam

It is proposed to develop each Continuous Miner panel by driving five heading galleries from main dip trunk roadways.

Each SDL panel would also be developed by five headings galleries. The panels in both seams have been proposed as five headings to maintain verticality with panels of lower seam and to reduce subsidence impact. After development of rise side of main dip, the thickness of seam-VII (top) will be proved. If required, to meet the production.

In a strike panel, the pillar size will be 25.5 m x 25.5 m centre to centre with gallery width of 6.0 m as permission granted by statutory body. Uniform pillar size & gallery width have been proposed for smooth operation. During development of a panel, height of extraction would be the seam height and if it is more than 3.0 m, extraction height would be taken up to 4.5 m with statutory permission as in practice in Indian coal mine CM faces. The panel layouts would be made as favourable for self-draining.

Below *Nala* and its tributaries, 220 kV HT lines, etc only development of panel have been proposed to protect these surface features from any damages due to underground depillaring operations.

Considering Seam-VII (Comb) and Seam-VI(B), the average seam thickness in major part of the property is about 3.0 m and more (General seam thickness 2.35- 4.25 m) and having almost flat gradient except towards northern mine boundary near borehole (CMKH-50), where the seam-VI(B) is having comparatively sharp gradient.

The planned production from the mine would be 0.819 Mt per annum by operating only Two Continuous miner panel (Existing CM & proposed CM as per revised mine plan).

1.10.4 PRODUCTION OF MINE

It is being proposed to deploy one additional Continuous miner package on hiring basis in 2nd panel, with production capacity of 0.354 Mt per annum, total production from the mine would be 0.819Mty. In a Continuous Miner panel, one Continuous Miner, two Shuttle cars, Roof bolters, one Feeder breaker and one LHD would be deployed to achieve the production of 1550 tpd (Set1). The second set CM being proposed will be deployed in panels having seam thickness 1.5 m to 3.0 m range. The production for low thickness range is proposed 0.354 MTPA owing to dip development, watery nature of seam and EC requirement as per existing norm. The Normative production from the Project is proposed 0.819Mty considering 305 working days.

As per mine authority, SDL would be working for two years only after that same will be withdrawn.

1.10.5 SEAM

The Project may be reviewed in later stage for re-deployment of SDLs or other equipment in seam-V for extraction of its workable property having thickness range >1.5m. This property has average seam thickness of 2.0m and the grade of coal is "D/E" with non-long flame characteristic. The workable area (1.2 Sq.km approx.) are occurs towards eastern side of the property (*i.e.*, main dip) and small area of about 0.3 sq.km, is occurring as contiguous (*i.e.*, parting is less than 10 m) with upper VI (B) seam. In this area, only development may be done so that the upper seam *i.e.*, VI (B) having "C" grade coal can be fully extracted. **The extractable reserves of Seam-Vis about 1.511Mt.**

1.10.5.1 Development Layout for Continuous Miner Panel:

It is proposed to develop five (5) heading galleries and the distribution of work load in five headings would be as follows:\

- i) One heading for Continuous Miner operation
- ii) One heading ready for cutting
- iii) One heading under support
- iv) One heading cleaning by LHD
- v) One heading having the ventilation and direction lines extended.

The Continuous Miner cuts for a specific distance i.e. about 10-14m beyond the last row of support using remote control (the specified distance depends on DGMS permission). The workforce at all-time operate under the supported roof. A lesser distance may be advanced at the discretion of operators and supervisors on the job depending on the geological condition. On completion of cutting at a face, the Continuous Miner would move to next heading and the roof of this face would be supported by Roof bolter.

It has been proposed that in a gallery (width of 6.0 m as per scientific study) the machine would be placed at the one side of the gallery and cut the gallery with machine cutting width (say, 3.3 m), up to 3m depth of cut. After that the machine would laterally shift to new position along the width of gallery and cuts the remaining width up to the depth of cut to make the gallery of 3 m depth and 6.0 m wide. Then, it will further cut another 3 m depth of cut from the same position in the face with machine cutting width (say 3.3 m) and the above process is repeated till the permissible length of cut (say 14 m) in a heading is made. After that, the Continuous Miner would move to next heading and the roof of this heading would be supported by Roof bolter.

1.10.5.2 Coal transport system in a panel:

The Continuous Miner would cut and simultaneously load the coal by its in-built stage conveyor into Shuttle car. The loaded shuttle car would discharge coal onto feeder breaker. From feeder breaker, coal would be discharged uniformly onto gate belt conveyor which is installed in central gallery of the panel. This gate belt conveyor will in turn discharge the coal on the trunk belt conveyor. The gate belt would be installed in the central gallery to ensure equal loading distances and cable length on each side of the loading point.

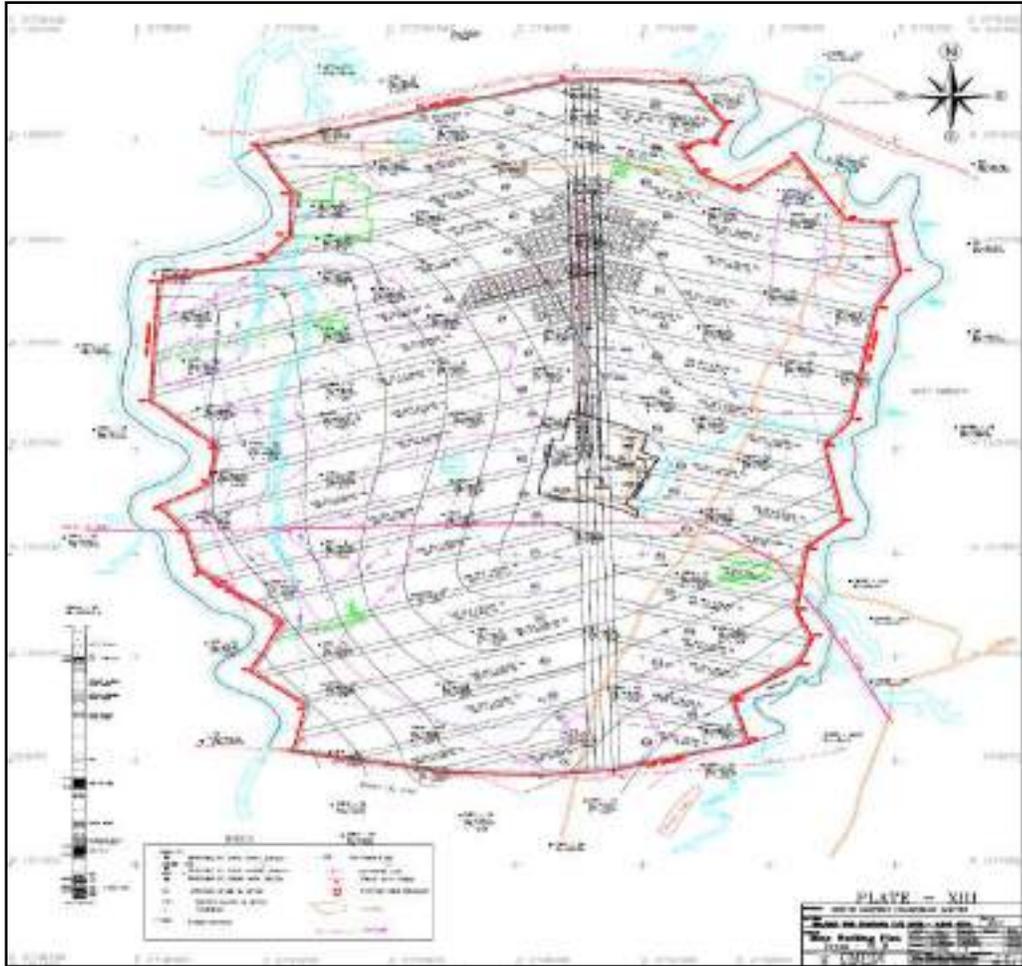


Figure 1.4 Underground working plan of seam VIB
 (Source: EIA/EMP for 0.19 MTPA November, 2017)

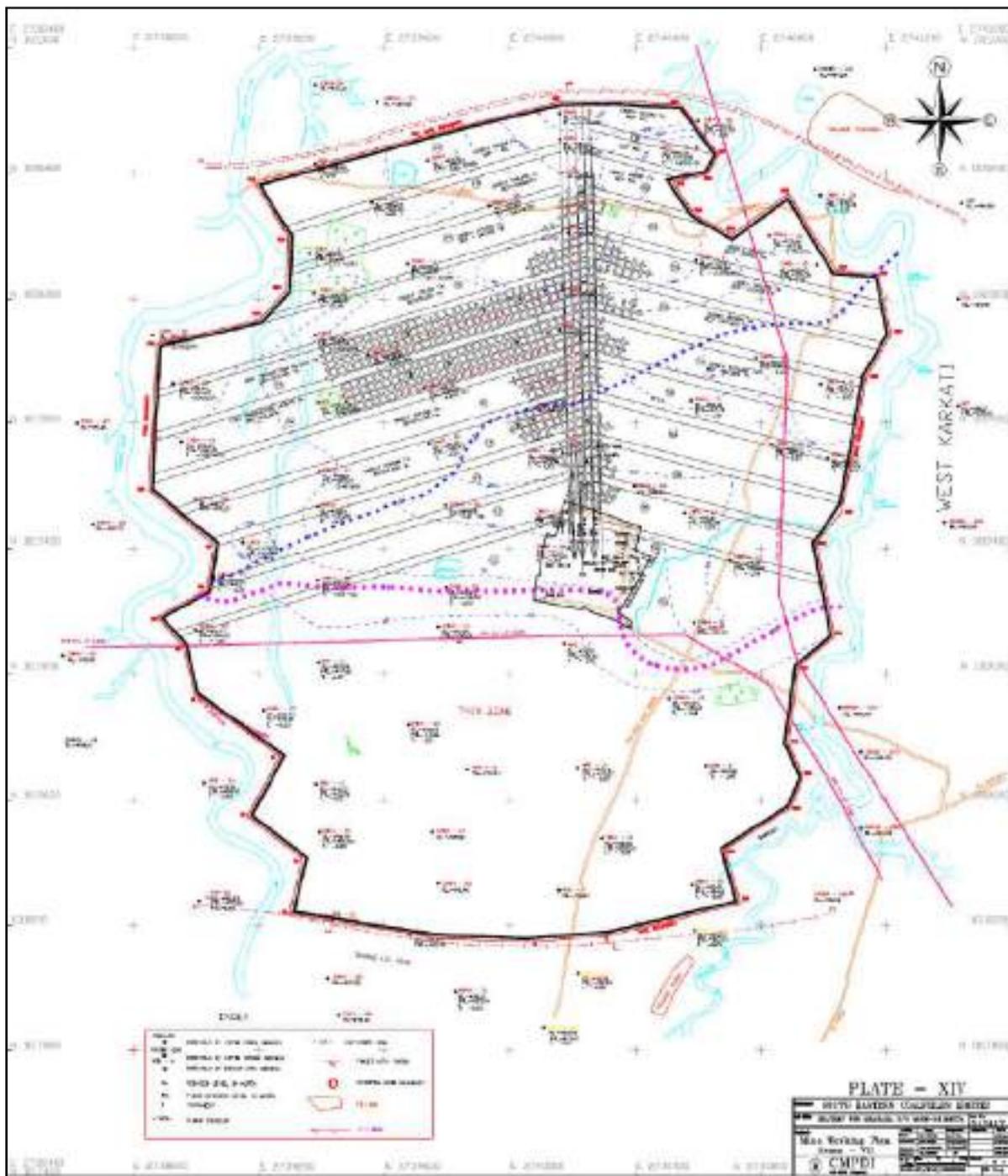


Figure 1.5 Underground working plan of seam VII
 (Source: EIA/EMP for 0.19 MTPA November, 2017)

1.11 Coal Handling Plant and Dispatches

The coal from UG is transported effectively and efficiently from face to surface. In Khairaha mine, entire coal transport is proposed by belt conveyors and material transport by haulages.

At the face the coal is being cut and loaded by CM into shuttle car which carries coal to feeder breaker and feeder breaker discharges coal onto the gate belt conveyor and with the help of a series of belt conveyor the coal is transported up to the surface bunker.

ROM coal from UG is conveyed to 4 x 150 t capacity overhead steel bunkers/hoppers installed at surface. The Trucks (hired) are loaded below bunker/hoppers and transported to stock yard/siding.

The total self-flowing bunkering on surface is about 600t and is not considered reasonable. An additional strata bunker has been proposed to be made in underground. In case of emergency when the bunkers are full and there is no takeoff, hired trucks loaded below bunker and emptied at the ground stock yard provided near incline mouth and finally the stock yard is liquidated as and when required with the help of pay loader.

1.12 R & R and CSR Activities

As per land use details of this project, 436.217 ha land is private agricultural land belonging to 524 PAFs from nearby Chirihiti, Khairaha and Khanat villages of the Shahdol district. Till date, 11.432 ha of private land from 27 private land owners from nearby Chirihiti and Khairaha villages have been acquired for establishment of infrastructure related to the project. Land compensation to these 27 PAFs amounting to a total of Rs.2175250/ have been made for their land by 31.07.2010, as per the R&R Policy of the CIL. Apart from land compensation, 05 PAFs belonging to the Khairaha village have also been provided employment. The details of remaining private lands are being obtained from the revenue dept. of the district by the project authorities. Thereafter, detailed survey and land compensation will be worked out for the individual PAFs as per the R&R Policy of the CIL. Apart from the monetary compensation, about 524 numbers of employments are also likely to be generated and provided to the eligible PAFs. As such, no displacement of the PAFs are involved under this project.

As per the CSR Policy of Company, the works related to CSR is being done at the area level i.e. Sohagpur Area. In the purview of this project various CSR activities like construction of water tanks, PCC road, ponds, toilets, and scheme for the drinking water supply in the nearby villages

have been carried out with the expenditures of over 3 crores during the preceding 4-5 years. Apart from these, various social welfare works are also being carried out by the Surabhi Mahila Mandal, Sohagpur Area. These include distribution of school bags to the students, arrangement of drinking water, health checkups, distribution of kambals and cloths to old people of the Bridha Ashram and needy people.

CHAPTER-2

ASSESSMENT METHODOLOGY

The assessment methodology adopted include discussion with the personnel from the mine authorities related to the project, review of documentation and copies of records provided by project proponent of Khairaha Underground mine; working group meetings and site inspections to assess the level of compliance of environmental conditions stipulated by MoEF & CC. The assessment processes covers the scope of the work order provided by the CIL and are described in detail below:

2.1 Opening meeting

The assessment process commenced with an opening meeting on 30th October 2019 at Sohagpur House with the Project Officer and other concerned officials of the Khairaha Underground mine to introduce the scope of works and their responsibility in facilitating the process. The purpose, depth and the scope of the works were outlined and the methods were explained. Further, requirement of documents to review such as various management plan, mine plan, mine closure plan and periodical reports submitted to various regulatory agencies to address specific compliance requirement particularly those relevant to address the scope of the study were discussed and deliberated.

2.1.1 Consultation

As part of the process, interviews were conducted with the concerned officials and staff dealing with the project to understand the regulatory and statutory process followed for the mine. During the course of consultations, in-depth discussion was held with Shri. D. K. Chandrakar, General Manager, Sohagpur Area; Sh. A. K. Anand, DGM (Mining)/Sub Area Manager (SAM), Khairaha UG; Sh. M. Satyanarayan, Colliery Manager, Khairaha UG; Sh. P. Ramanna, DGM (Mining), Sohagpur Area and Technical Secretary to GM, Sohagpur Area; Sh. A.K. Dwivedi, Nodal Officer (L&R), Sohagpur Area; Sh. R. P. Mishra, Safety/Ventilation Officer, Khairaha UG; Sh. Bhushan Kumar, Safety Officer, Khairaha UG; Sh. Gaurav Singhal, Assistant Manager (CSR), Sohagpur Area; Sh. Pankaj Kumar Gautam, Nodal Officer (Env), Sohagpur Area; Sh. Udit Bhardwaj, Colliery Engineer, Khairaha UG; Sh. Keshav Meena, Assistant Manager (Env), Sohagpur Area; Sh. G. K. Gupta, Unit Nodal Officer (Env), Khairaha UG; Sh. Ajay Nigam, Senior Surveyor, Khairaha UG and Sh. D. N. Prajapati, Senior Surveyor, Khairaha UG.

The assessment team members from the ICFRE, Dehradun included Dr. A. N. Singh, Scientist F and Nodal Officer, EM Division, ICFRE (domain- R&R and CSR), Dr. V. Mohan, Scientist G, IFGTB, Coimbatore (ICFRE) (domain-Ecology and Biodiversity), Dr. N. Rama Rao, Ex. Scientist G, ICFRE and Domain Experts (Ecology and Biodiversity, Surface water management, Plantations), Dr. D. K. Roychauduri, Ex. Director, FIMI and Domain Experts (Mining and Geology, Mining water quality, transport, etc.) and Dr. Manish Kumar Jain, Associate Professor, IIT(ISM), Dhanbad (UG mining environment, air and water pollution, etc.)

2.1.2 Desk Review

The available documents were exhaustively desk reviewed for generation of information on compliance to environmental clearance conditions. Relevant information generated was used for detailed discussion with the concerned officials for further understanding of the issues.

2.2 DATA COLLECTION AND VERIFICATION

The team verified the documents, such as letter from the MoEF&CC according environmental clearance approved till date, Environmental Impact Assessment (EIA) and Environment Management Plan (EMP), Mine plan report prepared by Central Mine Planning and Design Institute Ltd., in June 2018 and also all other statutory approvals like No Objection Certificate (NOC) from State Pollution Control Board (SPCB), Directorate General of Mine Safety (DGMS) permission, and all periodical reports submitted to various regulatory agency *etc*, were reviewed.

The documents were desk reviewed for collection of data prior to the onsite assessment to verify the implementation process. Wherever the documents were not available, detailed discussion were held with the concerned personnel and accordingly pointed out in the assessment report. In addition, the statements provided by the Project Personnel were also verified by desk reviewing the document and during site inspection. Wherever suitable verification could not be made, the same has been done during the assessment process and accordingly suggestion has been provided for future course of action.

2.3 SITE INSPECTIONS

A detailed site inspection from 30th October 2019 to 4th November 2019 of the key areas of the mine was carried out as part of the assessment process. Following areas were inspected during the inspection:

- UG mine working

- The haulage Incline and Air Drifts
- Site facilities
- Coal handling plant (CHP) and processing area
- Garland/catch drains
- R&R issues
- Corporate Social Responsibility (CSR)
- Employees protection measures
- Water management structures
- Railway siding
- Forest patch areas
- Seasonal Nalas/ Seasonal Ponds
- Greenbelt area
- Occupational Health Centre

2.4 REVIEW OF STATUS OF STATUTORY COMPLIANCE

- (a) Project approvals
- (b) Environmental Impact Assessment
- (c) Resettlement and rehabilitation
- (d) **Health & Safety:** Regulations Nos. 6, 61, 106, 112 of Coal Mines Regulations, 2017 and its related DGMS Circulars;
- (e) **Environment**
 - (i) Water (Prevention & Control of Pollution) Act, 1974;
 - (ii) Air (Prevention & Control of Pollution) Act, 1981;
 - (iii) Environmental (Protection) Act, 1986 – Approvals
- (f) Environmental Management Strategy

1) Air Quality

- i) Work zone –Standards for Coal Mines issued by MoEF, GSR-742 E dt. 25.09.2000
- ii) Residential category – National Ambient Air Quality standards issued by CPCB, GSR 176 dt.02.04.1996- Air quality monitoring.

2) Noise Monitoring Plan – Noise monitoring programme.

3) Water Quality

i) Water licence

ii) Mine discharge / Workshop / Colony effluents – Standards for Coal Mines issued by MoEF, GSR-742 E dt. 25.09.2000 and GSR-801 (E), EPA, 1986, dt.31.12.1993- Water quality management

(ii) Ground Water – BIS 105000: 1991

(iii) Surface Water – BIS 2296: 1982

2.5 WORKING GROUP MEETING AND REPORTING

After the completion of discussion/interaction, document verification and site visit, the observations and suggestions by the assessment team were compiled into a consent checklist and assessment notes were prepared. This report has been prepared highlighting areas where action or improvement is required keeping in view the scope of the study.

CHAPTER – 3

ASSESSMENT OF COMPLIANCE OF EC FOR KHAIRAHA UNDERGROUND COAL MINE

3.1 INTRODUCTION

Environmental assessment was performed to assess the activities implemented by the project authority as per EC conditions and compliance as a set of criteria or standards stipulated by the MoEF&CC, Govt. of India vide its letter F.No.J-11015/72/2004-IA-II(M) dated 11.01.2019. The team conducted assessment for Khairaha Underground mine through exhaustive document review, site visit and interactions with the stakeholders. The status report on compliance to environmental clearance conditions submitted by the project authority to the respective regulatory agencies was also reviewed by the audit team for relevant input. Accordingly, a checklist of EC conditions by the MoEF&CC, status of environmental compliance and observations by the assessment team prepared has been provided in Table 3.1

Table 3.1: Six Monthly Compliance to Environmental Conditions for Expansion of Khairaha Underground Coal Mining Project from 0.585 MTPA to 0.819 MTPA, submitted to the Addl. Director (S), MoEF & CC, Bhopal by the General Manager (Mining), Sohagpur Area, SECL, Shahdol, M.P. (vide Letter No. SECL/SGP/ENVT/19/124 Dated: 03/08/2019 and Observations/Recommendations of ICFRE (In the light of MoEF & CC Letter No. J-11015/72/2004-IA-II(M) dated-11.01.2019)

Sl. No.	Conditions stipulated by MoEF&CC, Govt. of India	Project Proponent's Compliance (January 2019 to June 2019)	Observations/Recommendations by ICFRE
(i)	The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31 st December 2019.	Complied, one season data has already been collected for the period April'2019 to June'19 and will be submitted by CMPDIL by Aug 19.	Complied Baseline data of April 19 to June 19 was generated through CMPDI and report will be submitted during month of November 2019 along with application form for EC extension, as was informed by the project authority.
(ii)	The project proponent shall obtain Consent to establish from the State Pollution Control Board for capacity of 0.819 MTPA prior to commencement of the increased production.	Complied, CTE had granted vide CTE no. 49416, Validity: 30/11/2019	Complied
(iii)	Transportation of coal from face to coal heap shall be carried out by belt conveyor. Further, the coal transportation from coal heap to Coal Handling Plant shall be carried out through covered trucks.	Being complied, Coal transportation from UG to Surface is being done by covered conveyor belt and further transportation from mine to railway siding and for road sales is being done through tarpaulin covered trucks only.	Being complied. Observed that the coal is evacuated through incline number 1 by belt conveyor and the same is transported to the surface by covered conveyor to steel bunker for dispatch through tarpaulin covered trucks.
(iv)	Mitigating measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient	Being complied, Sufficient nos. of water sprinklers have been installed at coal stock yard (14 No fixed sprinkler) and one mobile tanker of 5 KL capacity is provided	Being Complied Sprinkler was available and running at coal stock yard and railway siding. Railway siding is protected by brick wall and green canopy as per

	numbers of water sprinklers.	for dust suppression at road in a regular manner.	instruction of NGT (work is under construction). Fugitive emissions from the coal and stock pile yard were not observed as the surface area of the stock pile yard was kept moist through sprinklers.																
(v)	Sufficient coal pillars shall be left un-extracted around the air shaft (within the subsidence influence area) to protect from any damage from subsidence, if any.	Being compiled, at present the mine is in development stage, so, there is no chance at all for subsidence during development. During depillaring (in 2021-22) sufficient barrier coal pillars left around the air shaft (as per provisions CMR 2017) to protect from any damage due to subsidence.	<p>Three inclines have been pushed from centre of the property to reach the coal seams; out of this incline 1 and 2 are air intake drifts whereas incline number 3 is air return drift. The dimension of all these three drifts are as under:</p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Shaft / Incline</th> <th>Purpose</th> <th>Dimension (width height gradient & length)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Incline No.1</td> <td>Coal transport & travelling, Main Intake airway</td> <td>4.8mx3m, 1 in 4.5 Total length-490m</td> </tr> <tr> <td>2.</td> <td>Incline No.2</td> <td>Material transport, Main Intake airway</td> <td>4.8mx3m, 1 in 4.5 Total length-490m</td> </tr> <tr> <td>3.</td> <td>Incline No.3</td> <td>Main Return airway</td> <td>4.8mx3m, 1 in 4.5 Total length-490m</td> </tr> </tbody> </table> <p>All these drifts shall remain during depillaring stage. These will be provided with sufficient pillars to safeguard the structure as per the DGMS norms and also as per pillar designing done by CMPDI for stability. The condition will be complied during de-pillaring stage.</p>	Sl. No.	Shaft / Incline	Purpose	Dimension (width height gradient & length)	1.	Incline No.1	Coal transport & travelling, Main Intake airway	4.8mx3m, 1 in 4.5 Total length-490m	2.	Incline No.2	Material transport, Main Intake airway	4.8mx3m, 1 in 4.5 Total length-490m	3.	Incline No.3	Main Return airway	4.8mx3m, 1 in 4.5 Total length-490m
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(vi)	Solid barrier shall be left below the roads falling within the block to avoid any damage to the roads and no depillaring operation shall	Being compiled, At present the mine is in development stage, so, there is no chance at all for subsidence during development. During depillaring (in 2021-22) sufficient	Being complied. As required, all the surface infrastructures should be protected by keeping solid pillars to safeguard the infrastructures during the depillaring																

	be carried out below the township/colony.	barrier coal pillars left unextracted under and around Road and Township / Colony (as per provisions CMR 2017) to protect from any damage from subsidence.	operations.
(vii)	Depression due to subsidence resulting in water accumulating within the low-lying areas shall be filled up or drained out by cutting drains.	Being compiled, at present the mine is in development stage, so, there is no chance at all for subsidence during development. During depillaring (in 2021-22), depression due to subsidence will filled and accumulated water will be drained out by cutting drains. Moreover, for protection of In rush of water in mine, the garland drain along mine entry of proper dimension is being maintained, and along the mine boundary, garland drain will be maintained during depillaring.	Project proponent has shown its commitment to comply with the EC condition.
(viii)	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings should be continued till movement cases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clay soil/suitable materials.	Being compiled, at present the mine is in development stage, so, there is no chance at all for subsidence during development. Presentably, during development subsidence monitoring is being done by visual inspection. During depillaring (in 2021-22), suitable precautionary measures will be taken as per CMR 2017.	A committee of four officials involving Colliery Manager, Khairaha UG mine, Safety Officer Khairaha UG mine, Surveyor Khairaha UG mine and Sub-ordinate Engineer (Civil) Khairaha Sub Area has been constituted by the Dy. GM(M)/ Sub Area Manager, Rajendra Sub Area <i>vide</i> its office order dated 10-10-2019 for monitoring and reporting of subsidence within the mine leasehold area/ mine boundary of Khairaha UG.

(ix)	<p>Garland Surface drains (Size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rain fall and maximum discharge in the area adjoining the mine sites. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.</p>	<p>Being complied, Garland surface drain of Size: 0.60 m X 0.40 m, gradient: 1 in 100, length 1 km are provided around the mine premise to collect rainwater. UG sump with total holding capacity 20,400 KL and 2 no. of surface settling tank with capacity 100 KL each are provided. 4 no. of pump with peak capacity up to 10,500 KLD are deployed, which are sufficient for pumping out inrush of rainwater in mine.</p>	<p>The condition is being complied.</p> <p>The mine sump water is drained through the pucca RCC catch/garland drains and passed through the STs and the clean water is finally discharged into Baisaha <i>Nala</i>, which is used for agricultural purpose.</p> <p>A <i>kutch</i> garland drain has made all along inside the boundary wall in the mine office premises, but it is not continuous. At some places, the drain is completely filled with silt and sediments and weedy plants. Hence, it is suggested that it has to be maintained properly by de-silting at periodical intervals preferably before and after monsoon seasons.</p> <p>Sump capacity has designed and allowed proper settling of silt and sediment materials and provided adequate number of pumps to pump out the UG mine sump water to the surface area through surface settling tanks, the clean water is partly used for mining operations, dust suppression, plantation activities, washings, etc. The excess water is drained into Baisaha <i>Nala</i> for irrigation purpose to the villagers nearby ML area.</p> <p>A total of 5 underground mine sumps exist in the UG coal mine namely,</p> <p>3 UG Sumps: Among 5 UG mine sumps, 3 UG Sumps namely, 28Level/1Deep West sump water (Primary UG ST) is being pumped into 27Level/1Deep East (Secondary ST) followed by 24Level/1 Deep East (Tertiary UG ST) and some part of the sump water after settling in the 2 stage surface STs which is located at the backside of the</p>
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			<p>Project Office and the clean water is drained through RCC drain into Baisaha <i>Nala</i> located towards East of the lease area, which is used for agricultural purpose.</p> <p>4th UG Sump: The remaining part of sump water of 28Level/1Deep West (Primary UG ST) is pumped into 16Level/1Deep East (Secondary UG ST). After settling, the water is drained into surface settling tank located near substation, the clean water passed through pressure filter for Continuous Miner operation in the UG and some part of filter water is also used for sprinkling and other infrastructure needs.</p> <p>5th UG Sump: It is located at Seem VI bottom/0Level/1 rise pumped into 2 stage surface STs which is located at the backside of the Project Office and the clean water is drained through RCC drain into Baisaha <i>Nala</i> (copy of Index Plan of Mine Water Flow Diagram enclosed - Annexure-5).</p>
(x)	Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.	Being complied, 4 pump with peak capacity up to 10,500 KLD are provided, which are sufficient for pumping out of inrush of rainwater in mine.	<p>This condition is being complied.</p> <p>Installed capacity of Pumps is 10500 KLD. Whereas the seepage from mine working is estimated to be 7000 KLD. The peak rainfall in an area of 11.432 ha (Mine area) is estimated to be 540 KLD. Thus it is expected that total water generation will be 7540 KLD. Thus proponent has installed adequate capacity pumps to pump out the rain water during peak rain fall.</p>
(xi)	The company shall obtain approval of CGWA for use of groundwater for mining	Being Complied: Applied for NOC vide application no. 21-4/720/MP/MIN/2018 dated 25.12.18 and under process at	Project proponent has committed for non use of ground water for mining purposes, however has sought NOC from CGWA, which is under process

	operations at its enhanced capacity of 0.819 MTPA.	CGWA, Bhopal.	at CGWA, Bhopal.
(xii)	Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured	Being complied, Regularly Medical check up of mine employees is being done {PME (April18 to June 2019)- 110 persons} and training camps are being organised by our group Vocational training centre (Jan18 to June-19- 229 persons). Personal protective equipment are distributed (April 18 to June 2019- Hand Gloves-1043, Ear Plug Corded(Reusable) - 106, Goggles Welding – 56, Dust mask- Polycarbonate Disposable-6700.	Project proponent is complying with this condition by conducting IME/PME as per statue and also imparting health awareness training programs and distributing adequate number of PPEs to the workers for safeguarding occupational health and safety hazards.
(xiii)	A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRE/NEERI/IIT or any other expert agency identified by the Ministry.	The approval for 3 rd party assessment of EC compliance from ICFRE is under process and work will start very soon.	The assessment of EC compliance has recently been conducted by ICFRE, Dehradun during 30.10.2019 to 05.11.2019. Therefore, this condition is complied.

4.1 Generic Conditions

(a) Mining

(i)	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there- under as applicable.	Being Complied: Mine is running as per applicable provisions of Mines Act 1952 & subordinate legislations.	Mining is being carried out under strict adherence to the provisions of the Mines Act 1952 and subordinate legislations.
(ii)	No change in mining method i.e. UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment,	Agreed: This mine is working with underground method, there are no any change in mining method and scope of work. In case of any change, the prior approval will be taken from MoEF&CC.	Condition is being complied. Mine is being worked out by underground method by developing board and pillar in coal seam to win the coal.

	Forests and Climate Change (MoEFCC).		
(iii)	Mining shall be carried out as per the approved mining plan (including mine closure plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General of Mines Safety (DGMS).	Being Complied: Mine working is being done as per approved mine plan (including mine closure plan) and implemented all circulars as per mining laws and issued by DGMS.	This condition is being complied.
(iv)	Underground workplace environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.	Being Complied: All precaution measures as per CMR 2017 and DGMS norms. For maintaining Ergonomic and air breathable condition in UG, the adequate ventilation is being maintained (as per DGMS Norms). Adequate illumination is being maintained as per DGMS norms.	This condition is being complied. Environmental conditions in the underground are ergonomic and air breathable with adequate illumination. Ventilation survey, illumination survey, noise survey, gas analysis of underground workings are carried out as per statute and records maintained by Safety Officer as per procedures. All report complied as per DGMS norms.
(v)	No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled tribes and other Traditional Forest Dwellers (Recognition of forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.	Being complied: No mining activity shall be carried out in forest land.	The PP has agreed to comply the condition. No mining activity should be carried out in forest area until or unless the area is cleared under FC act 1980, as per the project proponent around 0.5 MT coal is getting blocked in these areas which proponent is committed for non exploitation. Based on Surface Plan/Survey of India Topo Sheet and as per the physical verification, there are 5 forestry patches (Total area: 6.825 ha) have been found in the ML area: Forest Patch-1: It is the largest forest patch covering an area of 5.094 ha which is located towards NW side of lease adjacent to the Sarpha Nala. Part of the area is

			<p>under cultivation by the local villagers and remaining part of the area is having sparse vegetation.</p> <p>Forest Patch-2: It is located towards Northern side in an area of 0.1 ha within the lease area.</p> <p>Forest Patch-3: It is located towards Western side in an area of 0.332 ha within the lease area.</p> <p>Forest Patch-4: It is located towards SW side in an area of 0.166 ha, within the lease area.</p> <p>Forest Patch-5: It is located towards SE side in an area of 1.133 ha within the lease area.</p> <p>The PP has informed that these 5 forest patches with a total area of 6.825 ha have been excluded from the present land use of the mining and therefore no coal mining will be conducted from below the area of these forest patches.</p>
(vi)	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.	Being Complied: All efforts like use of latest and efficient machine, regular maintenance of machinery etc. are being taken for activates like coal production, loading unloading, and transportation and for other activates.	<p>The condition is being complied.</p> <p>Two nos. of solar light at mine office block are under installation. Further plan is underway to install 04 more such light in different places in mine site in future.</p>
(b) Land Reclamation and Water Conservation			
(i)	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50000 scale or as notified by Ministry of Environment, Forest and Climate Change (MoEFCC) from time to	Being Complied: Digital Processing of lease area using remote sensing technique is being done. (Enclosed)	<p>The condition is being complied.</p> <p>The PP has provided the entire lease hold area of Land use/cover mapping of Khairaha UG mine of SECL based on satellite data of the Year 2017 (Annexure-6).</p>

	time shall be submitted to MoEFCC/ Regional Office (RO).		
(ii)	Post-mining land be rendered usable for agriculture/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for preparation of Mine Closure Plan, issued by the Ministry of coal dated 27 th August 2009 and subsequent amendments.	Will be complied: As per provisions of approved Mine closure plan, PR and EMP, the reclamation of subsidence affected area will be done after depillaring	The PP has agreed to comply the condition as per the guidelines.
(iii)	Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.	Being compiled, at present the mine is in development stage, No subsidence occurred during development. Presentably, during development subsidence monitoring is being done by visual inspection. During depillaring (in 2021-22), suitable precautionary measures will be taken as per CMR 2017.	Project proponent is advised to monitor the subsidence movement on the surface and around the various areas and its impact on natural drainage pattern, water body and road structure, should be continue as per the prevailing practices. Special attention must be given during depillaring resulting into cracks and fissures developed if any, should be effectively plugged with ballast and clay soil etc. The PP is committed for compliance of this condition.
(iv)	Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i)	Will be complied: Currently the mine is in development stage and during development no scope of fly ash filling is there.	Not applicable for this project. Since it is an underground coal mine, there is no scope of fly ash filling because depillaring is proposed by Caving. There is no external OB dump observed in the

	and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3 rd November 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.	During depillaring (after 2021-22), the fly ash filling with the help of suitable available technology may be possible under the guidelines of MPPCB, DGMS and Company policy.	ML area. However, small quantity of OB waste generated during the initial years of operations are stored in and around the mine entrance and it has been utilized completely as packing materials in haulage tracks.
(v)	A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.	Will be complied during depillaring: Presently, Mine is in development stage and No subsidence occurs during development. Subsidence monitoring is being done through visual inspection by competent person. During depillaring (2021-22) subsidence monitoring will be done by separate team and as per provisions of DGMS norms.	A committee of four officials involving Colliery Manager, Khairaha UG mine, Safety Officer Khairaha UG mine, Surveyor Khairaha UG mine and Sub-ordinate Engineer (Civil) Khairaha Sub Area has been constituted by the Dy. GM(M)/ Sub Area Manager, Rajendra Sub Area <i>vide</i> its office order dated 10-10-2019 for monitoring and reporting of subsidence within the mine lease- hold area/ mine boundary of Khairaha UG (Annexure- 7)
(vi)	Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.	Being complied: Presently, Mine is in development stage and No subsidence or cracks occurred during development. Moreover, Subsidence and crack monitoring is being done through visual inspection by competent person. Sufficient preventative measures are being taken to prevent inrush of water in mine.	No such cracks or subsidence is observed in the mining area as the mine is in the developmental stage, however to safeguard the mine from inrush of water, the team which is to be constituted should take necessary preventive measures.
(vii)	Native tree species shall be selected and planted over areas	Being complied: At present 5000 nos. plants including native species are planted	During visit of the Khairaha UG mine, no any subsidence was observed. However, if any occurrence of subsidence in this UG mine in near future during

	affected by subsidence.	in mine premises. After depillaring, the work of plantation of native species (as per provision of PR, EMP and MCP) will be done over areas affected by subsidence	operational phase occurs, the Project Proponent has to take up appropriate action as per EC condition of MoEF&CC by planting high root density native tree species at the affected areas.
(viii)	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State Government to provide alternate areas for Hon'ble Supreme Court with regard to acquiring grazing land.	Complied: No grazing land involved in core zone of Khairaha UG Mine	No grazing land involved in the core zone of the lease area as per the present and future land use. Hence, the condition is not applicable to this project and the same need to be condoned.
(c) Emissions, Effluents, and Waste Disposal			
(i)	Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc. shall be carried out in critical areas prone to air pollution (with higher values of PM ₁₀ /PM _{2.5}) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.	Being complied, -Coal transportation from UG to Surface is being done by covered conveyor belt provided with mist sprinkling arrangement and further transportation from mine to railway siding and through road sales is being done through optimally loaded tarpaulin covered trucks only. -14 nos. of fixed sprinkler are operational along coal stock yard and entrance. -1 No. of mobile water tanker is used for dust suppression at coal transportation road -1 no of Mist gun is provided for dust suppression. -Regular monitoring of ambient air quality is being done by CMPDIL and by MPPCB, Shahdol, values are well within prescribed	Being Complied Following processes verified: -Transportation through covered truck -Water sprinklers at coal stock yard and railway siding. -Mobile water tanker. The railway siding is barricaded with brick wall and green canopy with water sprinkler. No fugitive emissions were observed during loading and unloading. Regular monitoring locations of CMPDI were verified through field visit. Photographs attached.

		norms	
(ii)	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area in a phased manner. The green belt comprising a mix of native species shall be developed all along the major approach/coal transportation roads.	<p>Being complied:</p> <p>The green belt is developed in mine office premises by planting 5000 plants. The green belt along mine boundary will be developed after depillaring by planting native species.</p>	<p>The condition is being complied.</p> <p>Thick greenbelt has been developed all around the bunker, coal stock yard and mine office premises through the M. P. Rajya Van Vikas Nigam, Umaria during the year 2011 by planting of 5000 nos. of both native and exotic tree species.</p> <p>In addition, the project proponent has raised plantation around the mine office premises during the year 2018 by planting 650 plants.</p> <p>Very sparse plantation/vegetation was observed with several gaps all along the approach/coal transport roads within the lease area.</p> <p>Hence, the Project Proponent (PP) has to raise three tier thick plantations all along within the mine lease area and on both sides of the approach/transport roads as per EC condition with tall, fast growing, fruit bearing native plant species.</p>
(iii)	The transportation of coal shall be carried out as per the provisions and route proposed in the approved Mining Plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.	<p>Being complied:</p> <p>The transportation of coal is being done through bypass road and as per proposed route of approved mine plan. There are not any villages situated along the road.</p>	<p>Being Complied.</p> <p>Transportation through bypass road is being carried out through covered trucks. No any population/village inhabit there.</p> <p>Observed that few patches in the road has developed pot holes which are filled with mud and other ballast material, needs proper maintenance to avoid spillages of coal.</p> <p>Regular Maintenance of bypass road to be ensured to avoid fugitive dust emissions due to road and transportation.</p>
(iv)	Vehicular emissions shall be kept under control and regularly	Being complied.	Being Complied.

	monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centers.	<ul style="list-style-type: none"> • PUC certified vehicles are only deployed for coal transportation (enclosed). • Coal transportation is being done in optimally loaded through covered trucks only (Enclosed). 	All vehicles are running under PUC certificate.
(v)	Coal stockpile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.	<p>Being complied:</p> <ul style="list-style-type: none"> • Coal stock yard/ material transfer point is equipped with fixed sprinkler (Enclosed). • There is not any crusher in Khairaha UG. • Belt conveyor is completely covered and equipped with mist sprinkler (Enclosed). • Drilling is being done by twin bolter fitted with water sprinkling system (Enclosed). 	<p>Being Complied</p> <p>UG to surface transport through Belt conveyor.</p> <p>Coal stock yard and railway siding is equipped with water sprinklers.</p> <p>Railway siding is covered with brick boundary wall and green canopy.</p> <p>Side cladding gantry along conveyor is provided to avoid air born dust.</p> <p>Mobile water sprinkler is deployed on road transport.</p> <p>Underground drifts were found free off any coal dust.</p> <p>Drilling is not practiced in this mine and no crusher is installed in this mine.</p>
(vi)	Coal handling plant shall be operated with effective control measures viz. bag filters/water or mist sprinkling system etc to check fugitive emissions from crushing operations, conveyor system, transfer points etc.	<p>Being complied:</p> <ul style="list-style-type: none"> • No CHP at mine. Only transfer points having water sprinkling arrangement. • There is not any crushing operation is being done. • For control of Fugitive dust emissions from conveyor system, belt is completely covered and provided with mist sprinkler system (Enclosed). • Coal stock yard/ material transfer 	<p>This condition is not applicable to this project.</p> <p>The CM deployed in underground (with feeder breaker to size -100 mm to oversize coal if any) is having dust suppression system with mist sprinkler.</p> <p>Underground transport through belt conveyor is having sufficient sprinkler and covered throughout.</p>

		point is equipped with fixed sprinkler (Enclosed).	
(vii)	Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.	Being complied: <ul style="list-style-type: none"> No ground water is being utilized for mining operations. Rainwater harvesting is provided at manager office and about 150 Cum/year (Enclosed). 	No ground water is used for mining operation. The seepage through underground workings is pumped into the settling tanks. In underground as well as surface the water after settlement of dust and coal is again used for sprinkling and in underground operations. Hence, this condition is being complied.
(viii)	Catch/garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps & -OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. -The drains/ponds so constructed shall be regularly desilted particularly before onset of monsoon and maintained properly. -Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilized for dust	Being complied: <ul style="list-style-type: none"> Catch/garland drains and siltation pond of appropriate size are constructed around the mine working and coal heaps (Enclosed). This is a UG mine, there is not any OB dump. Catch/garland drains and siltation pond of appropriate size are constructed around the mine working and coal heaps and regular maintenance and desilting is being done. Sump capacity with adequate capacity is provide (underground capacity- 20400 cum/day, peak sudden rainfall water generation - 540 Cum). Mine is underground, there is no OB dump. 	Most of the points of the condition are repeated herewith and the relevant points of the conditions are being complied except <u>OB dumps and retaining walls at the toe of the OB dumps</u> which are not applicable in the case of UG coal mine. Since it is an underground coal mine, there is no external OB dump observed in the ML area. Therefore, the point of the condition “ <i>Dimension of the retaining wall constructed...</i> ” is not applicable. Hence, the last point of the condition i.e., “ <u>Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies</u> ” is not applicable and the same may be condoned.

	<p>suppression measures and green belt development.</p> <p>-Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/ habitation/ water bodies.</p>		
(ix)	<p>Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap shall be installed and maintained fully functional with effluents discharge adhering to the norms. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste.</p>	<p>Being Complied.</p> <p>Treatment of wastewater- CHP - No CHP in Khairaha UG mine. Workshop - No water is being discharged outside from workshop. Oil & grease trap - Oil and Grease trap provided in workshop, no water is being discharged outside from O&G Trap. Mine water - Strata water/Ground water is released during mining activity. About 4600 Cum/day groundwater (mine water) is released form strata, then water is being settled in series of underground sumps (Total capacity - approx. 20400 Cum). 2400 Cum/day of is recycled after treatment through pressure filter (2200- water after recycling, 200 make of water). Remaining 4400 cum/ day of water is further get settled in surface Settling tanks (2 Nos, 100 cum each), and ultimately discharge to Sarpha <i>Nala</i>, and utilized by</p>	<p>The condition is being complied.</p> <p>The mine seepage water is collected in underground settling tanks and then is pumped out to surface settling tanks from where after settlement of silt and coal is used for spraying and sprinkling as well as in underground dust suppression. Excess water from the sedimentation tank from the surface is discharged to Baisaha nala for the use by downstream community.</p>

		Shahdol town after treatment (enclosed). Sewage treatment plant- No residential colony under Khairaha UG mine.	
(x)	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	<p>Being complied:</p> <ul style="list-style-type: none"> For ground water recharge, a Rainwater harvesting system constructed at manager office. (Photo Enclosed) On request of CMO, Shahdol Nagar Palika, water is being discharged in to Sarpha <i>Nala</i> which ultimately goes to Sarpha dam for domestic use of Shahdol town, during its Course, water also used by Famers nearby Nallah. Sarpha dam is also functioning as Artificial groundwater recharge. Regular GW level monitoring is being done, no significant symptoms of lowering Ground water table. For supply of water to village, a treatment plant is under construction (approx. cost of project- 2.17 crores). 	<p>The condition is being complied.</p> <p>A ground water recharge structure has been created at mines office of Khairaha project with a total surface area of 125sq.m for collection of rain water. The collected rain water is passed through a recharge pit and was found in working condition.</p> <p>Project authority at present are discharging excess mine water to the Baisaha <i>Nala</i> for use by the downstream villages and are committed to supply drinking water for the nearby villages by erecting a water filtration plant for the said purpose.</p>
(d) Illumination, Noise & Vibration			
(i)	Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in underground mining operations,	<p>Being complied:</p> <p>Control measures against noise pollution like regular maintenance of equipment, Greenbelt development; elimination of blasting is being practiced in Underground</p>	<p>The condition is being complied.</p> <p>Continuous miner is deployed with feeder breakers in underground mining, which do not produces noise upto 85 dB(A) in work environment. However, proponent has provided sufficient protecting measures</p>

	operation of HEMM, etc. shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.	and at surface to keep the noise pollution well below the threshold limit. The worker engaged in UG mining operations is equipped with PPE like safety google, Dust mask and Earmuff/ earplugs. Regular monitor is being done and value is within threshold limit.	such as ear plugs, muffs in conformity with the prescribed norms in this regard. During IME/PME each worker is subjected for audiometric test. No such cases of NIHL are reported.
(ii)	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in the regard shall be submitted to the Ministry/RO on six- monthly basis.	Being complied: The noise level survey is being carried as per prescribed guidelines <85db	The condition is being complied. Noise level monitoring done at various vulnerable points and reported noise levels less than 85 dB(A). However, proponent is provided sufficient protecting measures such as ear plugs, muffs in conformity with the prescribed norms in this regard.
(iii)	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.	Not applicable for Underground Mine.	This condition is not applicable for this project and therefore the same may be condoned.
(iv)	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in the regard shall be submitted to the Ministry/RO on six- monthly basis.	Being complied: The noise level survey is being carried as per prescribed guidelines <85db	As commented towards point No. d(ii) of the EC condition.

(e) Occupational Health & Safety			
(i)	Adequate illumination shall be ensured in all mine locations (as per DGMS standards and monitored).	<p>Being complied:</p> <p>Adequate illumination in mine locations as per DGMS standards and its monitoring is being done.</p>	<p>The condition is being complied.</p> <p>Adequate illumination is ensured at all mine locations in conformity with the DGMS Standards. The monitoring reports verified, which reveals that the illumination is as per the guidelines.</p> <p>Records were stored in hard bound labeled register and follow DGMS Standards. (copy of sample report is enclosed at Annexure -8)</p>
(ii)	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the workers engaged in the project and maintain records accordingly as per the provisions of the Mine Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20 % of the workers identified from workforce engaged in the active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.	<p>Being complied:</p> <p>Regularly Medical checkup of mine employees is being done {PME (April18 to June 2019)- 110 persons}</p>	<p>The condition is being complied.</p> <p>Project proponent is undertaking health survey for workers by conducting IME/PME as per the provisions of Mines Rule 1955 and DGMS circulars. As per statue 20% workers from the workforce are subjected to health check up for occupational disease and NIHL. The records of such examination were checked at area hospitals Khairaha. No case of Pneumoconiosis and NIHL has been reported yet.</p>
(iii)	Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety	<p>Being complied:</p> <p>Personnel (including outsourcing employees) working in dusty areas are equipped with protective respiratory devices like dust mask and sufficient</p>	<p>The condition is being complied.</p> <p>PPE compliance in underground was moderate and is suggested that 100% compliance of PPE should be ensured by sensitizing the workers through slogans at pit top and sensitization programs.</p>

	and health aspects.	training provided in Vocational training centre (VTC), Sohagpur area (Jan to June 2019, Departmental- 27 person, contractual- 47 person) .	Records of PPE distribution are verified.
(iv)	Skill training as per safety norms specified by DGMS shall be provided to all workman including the outsourcing employees to ensure high safety standards in mines.	Being complied: Regular training is being provided to Workman including the outsourcing employees in VTC, Sohagpur area as per safety norms of DGMS (Jan to June 2019, Departmental- 27 person, contractual- 47 person).	This is being complied and it is a continual process.
(v)	Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.	Being complied; Drinking water provided at office premise and underground rest shelter and regular monitoring of quality is being done.	Being complied. As informed by the PP, the periodic monitoring of quality of drinking water is being carried out on regular basis. Drinking water quality monitoring report for the month of Sept. – Oct. 2019 prepared through CMPDI was examined by the team.
(vi)	Implementation of Action Plan on the issues raised during the public hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan Submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/or the national R&R Policy/R&R Policy of the State Government, as applicable.	Being complied: All issues raised during public hearing is being addressed. 467.458 Ha. Land have been acquired under Section 9(i) of CBA(A&D) 1957 and compensation will be paid to land oustees as per CIL R&R Policy.	The condition is being complied. Various issues raised during public hearing are being complied. These include monitory provisions towards various measures for containment of air/dust pollution like provision of mobile water tanker, plantations and necessary arrangement for education, health, and road construction. These also include regular monitoring of air and water quality through agencies like CMPDIL and M. P. Pollution Control Board. Altogether, an expenditure of about 5 crores has been made towards the said measures. Land compensation to the 27 private land owners from nearby Chirihiti and Khairaha villages amounting to a total of Rs.2175250/ have been made for their 11.432 ha of private land by 31.07.2010. This land has been

			<p>used for establishment of infrastructures like office premises and approach road to the mine. Apart from land compensation, 05 PAFs belonging to the Khairaha village have also been provided employment as per the R&R Policy of the CIL.</p> <p>Further, out of the land acquired under CB Act, 424.785 ha private land belongs to the PAFs from Khairaha and Khanath villages. The details of these private lands are being obtained from the revenue dept. of the district by the project authorities. Thereafter, detailed survey and land compensation will be worked out for the individual PAFs as the R&R Policy of the CIL. Apart from the monetary compensation, about 524 numbers of employment may also be generated and provided to the eligible PAFs. As such, no displacement of the PAFs are involved.</p>
(vii)	<p>The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA.II(M) dated 29th October, 2014, titled impact of mining activities on habitations- issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area.</p>	<p>Being complied, all mitigative measures are being taken for minimising impact of mining activity on habitation.</p>	<p>Condition is being complied.</p> <p>Measures are being taken for minimising the impact of mining activity on habitation. These include measures for containment of air/dust pollution like provision of mobile water tanker, raising of plantations, monitoring of air and water quality and construction of blacktop road.</p>
(f) Ecosystem and Biodiversity Conservation			

(i)	<p>The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any spotted/reported in the study area. The Action plan in this regard, if any shall be prepared and implemented in consultation with the State Forest and Wildlife Department.</p>	<p>Being complied: Preparation of conservation plan is under process by TFRI, Jabalpur.</p>	<p>The condition is being complied. Award of work order issued to the Director, Tropical Forest Research Institute, Jabalpur for “<u>Study of Flora and Fauna and preparation of Wildlife Conservation Plan including Endangered species if any and Comprehensive study of impact of mining on the Wildlife for Rajendra UG and Damini UG mine of Sohagpur Area of SECL</u>” (vide Letter No. SECL/SGP/ENVT/18/771 dated 13th December 2018 - Annexure-9). The Rajendra UG and Damini UG mines are falling within the buffer zone of the Khairaha UG mine study area.</p>
(ii)	<p>Greenbelt consisting of three tier plantations of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt comprising of a mix of native species shall be developed all along the major approach roads/coal transportation roads.</p>	<p>Being complied: Green belt consisting mixed native species of plants is developed at mine premises by planting 5000 nos. by MPRVVN. The green belt around the mine boundary will be develop during Depillaring.</p>	<p><i>The condition is repetition of condition No. (ii) under (c) Emissions, Effluents, and Waste Disposal.</i> The compliance of the condition is being implemented by PP. However, the same compliance observations are dealt herewith. Thick greenbelt has been raised all around the bunker, coal stock yard and mine office premises through the M. P. Rajya Van Vikas Nigam, Umaria during the year 2011 by planting of 5000 nos. of both native and exotic tree species. In addition, the project proponent has raised plantation around the mine office premises during the year 2018 by planting 650 plants. Very sparse plantation/vegetation was observed with several gaps all along the approach/coal transport roads within the lease area. Hence, the Project Proponent (PP) has to raise three</p>

			<p>tier thick plantations all along within the mine lease area and on both sides of the approach/transport roads as per EC condition with tall, fast growing, fruit bearing native plant species.</p>
(g) Public hearing, R&R and CSR			
(i)	<p>Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.</p>	<p>Being complied: All Issue raised during public hearing is address and suitable action has been taken (enclosed). 467.458 Ha. Land have been acquired under Section 9(i) of CBA(A&D) 1957 and compensation will be paid to land oustees as per CIL R&R Policy.</p>	<p>The condition is being complied. Various issues raised during public hearing are being complied. These include monitory provisions towards various measures for containment of air/dust pollution like provision of mobile water tanker, plantations and necessary arrangement for education, health, and road construction. These also include regular monitoring of air and water quality through agencies like CMPDIL and M P Pollution Control Board. Altogether, an expenditure of about 5 crores has been made towards the said measures. Land compensation to the 27 private land owners from nearby Chirihiti and Khairaha villages amounting to a total of Rs.2175250/ have been made for their 11.432 ha of private land by 31.07.2010. This land has been used for establishment of infrastructures like office premises and approach road to the mine. Apart from land compensation, 05 PAFs belonging to the Khairaha village have also been provided employment as per the R&R Policy of the CIL. Further, out of the land acquired under CB Act, 424.785 ha private land belongs to the PAFs from Khairaha and Khanat villages. The details of these private lands are being obtained from the revenue dept. of the district by the project authorities. Thereafter, detailed survey and land compensation will be worked out for the individual PAFs as the R&R Policy of the</p>

			CIL. Apart from the monetary compensation, about 524 numbers of employment may also be generated and provided to the eligible PAFs. As such, no displacement of the PAFs are involved.
(ii)	The project proponent shall ensure the expenditure towards socio-economic development in and around the mine, in every financial year as per the corporate social responsibility policy as per the provision under section 135 of the Companies Act, 2013.	Being complied: As per CSR policy of company the work related to CSR is being done in nearby villages of project. Last three year of expenditure: 2018-19-14.72 lakhs 2017-18-15.62 lakhs 2016-17-79.25 lakhs	The condition is being complied. As per the CSR policy of Company, the work related to CSR is being done at the area level <i>i.e.</i> Sohagpur Area. Expenditures of over 3 crores have been made towards activities like construction of water tanks, PCC road, ponds, toilets and scheme for the drinking water supply in the nearby villages of project during the preceding 4-5 years.
(iii)	The project proponent shall follow the mitigation measures provided in the Ministry's OM No. Z-11013/5712014-IA.II (M) dated 29 th October, 2014 titled 'Impact of mining activities on habitation issues related to the mining projects wherein habitations and villages are the part of mines lease areas or habitations and villages are surrounded by the mine lease area'.	Being Complied. all mitigative measures are being taken for minimising impact of mining activity on habitation.	The condition is being complied. Various measures have been taken for containment of air/dust pollution like provision of mobile water tanker, plantations, construction of blacktop road for transport of coal. Regular monitoring of air and water quality through agencies like CMPDIL and M P Pollution Control Board is also being done.
(iv)	The project proponent shall make necessary arrangements, if grazing land is involved in core zone, in consultation with the State Government to provide alternate areas for livestock	Not applicable: There is not any grazing land involved in core zone under the project.	There is no any grazing land involved in the core zone under the project and therefore the this EC condition may be condoned.

	grazing, if any. In this context, the project proponent shall implement the direction of Hon'ble Supreme Court with regard to acquiring grazing land.		
(h) Corporate Environment Responsibilities			
(i)	The company shall have a well laid down environment policy duly approved by Board of Director. The environment policy should prescribe for standard operation procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environment of forest norms/conditions. Also, the company shall have a define system of reporting of non-compliances/violations of environmental norms to all Board of Director and/or shareholders/stakeholders.	Complied: Company have well laid down board approved corporate Environment policy.	Condition is being complied. The Company has a well laid down Corporate Environment Policy, which is duly approved by the Board. This policy suitably address this EC condition.
(ii)	The project proponent shall comply with the provisions contained in the Ministry's OM dated 1 st May, 2018, as applicable, regarding Corporate Environment Responsibility.	Being complied: The activities under CER like dinking water supply to villager, rainwater harvesting etc. is being done.	The condition is being complied.
(iii)	The hierarchical system or Administrative Order of the company to deal with	Complied: Company level EC condition compliance monitoring team is constituted.	The condition is being complied.

	environment issues and for ensuring compliance with the environment clearance conditions shall be displayed on website of the Company.		
(iv)	A separate environment management cell both at the project and company headquarter level, with suitable qualified shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Complied: Separate environment management cell with suitable qualified person have established and functioning at project and company level.	The condition is being complied.
(v)	Action plan for implementing EMP and environment conditions shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Officer along with the Six Monthly Compliance Report.	Being complied: <ul style="list-style-type: none"> • Action plan for implementation of EMP and EC has been prepared and approved by competent authority. • Sufficient fund for environmental protection measures is provided and kept under separate head. Expenditure details are as follows: <ol style="list-style-type: none"> 1. Monitoring by CMPDI: 22.38 Lakhs 2. Monitoring by MPPCB: 1.74 Lakhs 3. Hazardous waste authorization - 0.1 Lakhs etc. 4. Water spraying by mobile water tanker- 1.76 Lakhs 5. Pressure filter installation (2 No)-7 Lakhs. 6. O & M of settling tank- 0.25 	Being complied

		Lakhs 7. Rainwater harvesting – 2.2 lakhs Data regularly submitted to MoEF&CC with six monthly compliance report	
(vi)	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Being complied: Self environmental audit team is constituted, and Environmental audit will be done very soon (copy enclosed). The award of work of third-party environmental audit from ICFRE is under process (copy enclosed).	Self assessment audit of Environmental compliance conditions through inter-area audit and report available and verified by the visiting team from the ICFRE, Dehradun. Third party audit of EC compliance is being complied by the Project Proponent by engaging the ICFRE, Dehradun in the form of current assessment reporting during 30.10.2019 to 05.11.2019.
(i) Statutory Obligations			
(i)	The environmental clearance shall be subject to order of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law from time to time, and as applicable to the project.	Agreed.	The Project Proponent has agreed to this condition.
(ii)	The environmental clearance shall be subject to obtaining wildlife clearance, if applicable, from the Standing Committee of National Boards for Wildlife.	Not Applicable: only tenancy and govt. land involve covered under the project area and no RF, wildlife sanctuary, wildlife corridor fall with radius of 15 KM.	The Project Proponent has agreed to this condition.
(iii)	The project proponent shall obtain Consent to Establish/Operate under the Air Act, 1981 and the Water Act, 1974 from the concerned State Pollution Control Board.	Complied, CTE granted as per No. 49416, Dated-30.01.2019	Complied.
(iv)	The project proponent shall obtain	Being complied:	Applied.

	the necessary permission from the Central Ground Water Authority (CGWA).	Applied for NOC <i>vide</i> application no. 21-4/720/MP/MIN/2018 dated 25.12.18 and application is under scrutiny at CGWA, Bhopal.	
(j) Monitoring of Project			
(i)	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM ₁₀ , PM _{2.5} , SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive target in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.	Being complied: -Air quality monitoring is being done on following stations -In core zone; Main gate, Khairaha project Lamp room, Khairaha project Electrical substation, Khairaha project Manager Office, Khairaha project -In Buffer zone (Ambient air quality monitoring stations): Khairaha Village Kundri village Chirahti village Khanath village -Installation of CAAQMS is proposed at Bangwar colony.	The condition is being complied. Four Ambient air monitoring stations were established by CMPDI in core and buffer zone respectively. Meteorological data is available in baseline study. Four monitoring locations of buffer zone established one-one in each direction. Due to limited area in core zone, one station can be reduced. Lamp room and manager room station can be merged as a single one. Efforts must be taken to provide platform of sufficient height for installation of RDS at least in core zone. SPM, RPM, SO ₂ and NO ₂ monitored and analyzed. PM _{2.5} is not monitored. Heavy metals also monitored once in six month through EPM 2000 filter paper. Order of CAAQMS is already placed on 07-08-2019 and yet to install.
(ii)	Ambient air quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742(E) dated 25-09-2000 and as	Being complied: Monitoring of Ambient air quality in core zone is being carried out as per Coal Industry Standards notified vide GSR 742(E) dated 25-09-2000 and as Amended	The condition is being complied. Monitoring is done as per NAAQS 2009 and results were compared with GSR 742(E) dated 25-09-2000 for SPM, RPM, SO ₂ & NO ₂ . GSR 742(E) dated 25-09-2000 didn't have standard

	emended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/ Regional Officer and to the CPCB/SPCB.	from time to time by the Central Pollution Control Board (Monitoring report enclosed). monitoring data regularly submitted to MoEFCC and MPPCB with Environmental audit report. Environmental safeguards six monthly monitoring report	for PM2.5. Heavy metals also monitored through EPM 2000 filter paper but unable to compare with air standards as NAAQS 2009 also having only for Pb, Ni & As. Periodic monitoring reports submitted as per schedule.
(iii)	The effluent discharge (mine waste water, workshop effluent) shall be mentioned in terms of the parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25-09-2000 and as amended from time to time by the Central Pollution Control Board.	Being complied: -Quality of Mine water is being monitored as per parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25-09-2000 and as amended from time to time by the Central Pollution Control Board (report enclosed). -Workshop effluent: There is not any type of discharge from workshop.	The condition is being complied. Monitoring was done through CMPDI and samples were analysed at Manendragarh and Bilaspur lab. Efforts to be taken to monitor few parameters at site only and rest all parameters at Manendragarh lab.
(iv)	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall be referred in this regards for its compliance.	Being Complied: Monthly monitoring data is being displayed at project office.	Monitoring data is uploaded on website and notice board.

			
(v)	<p>Regular monitoring of underground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and construction new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to Ministry of Environment, Forest and Climate Change/Regional Office.</p>	<p>Being Complied: The water level monitoring is being done by series of existing well. The monitoring of water quality is carried out monthly basis. The report is being submitted to MoEFCC with six monthly report.</p>	<p>The condition is being complied. Five wells and Three piezometers are monitored in and around Khairaha Underground mine. The water table is monitored as stipulated. It was observed that ground water is occurring between 8.00 to 12mts and there is no adverse effect on water table due to mine pumping. Ground water quality is monitored once in a year and is compared with IS:10500. There is no quality deterioration due to coal mining.</p>

(vi)	Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.	Being complied.	Monitored through CMPDI and analysed at Manendragarh lab as per specified norms.
(vii)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environment conditions to the Ministry of Environment, Forest and Climate Change/Regional Office. For half yearly monitoring reports, the data should be monitored for the period of April to September and October to March of the financial year.	Being complied	Being complied
(viii)	The Regional Officer of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/ monitoring reports.	Agreed	The Project Proponent has agreed to this condition.
(k) Miscellaneous			
(i)	Efforts should be made to reduce energy consumption by	Being Complied: All efforts like use of latest and efficient machine, regular	Two nos. of solar light at mine office block are under installation, further plan is underway to install 04 more

	conservation, efficiency improvements and use of renewable energy.	maintenance of machinery etc. are being taken for activates like coal production, loading unloading, transportation and for other activates	such light at different places in mine site in future.
(ii)	The project authorities shall inform to the Regional Office regarding commencement of mining operations.	complied	This condition is complied.
(iii)	A copy of the environmental clearance shall be marked to concerned Panchayat. A copy of the same shall also be sent to the concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's Office/ Tehsildar office for information in public domain within 30 days.	Complied	This condition is complied.
(iv)	The EC shall be uploading on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain.	Complied	Complied. 
(v)	The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned,	Complied	This condition is complied.

	within 7 days of the issue of this clearance, informing that the project has been accorded environmental clearance and a copy of the same is available with the State Pollution Control Board and also at website of the Ministry.		
(vi)	The environmental statement for each financial year ending 31 march in Form-V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail. Concerns raised during public hearing.	Being Complied	This condition is being complied.
(vii)	The above condition will be enforced inter-alia, under the provisions of the Water (prevention & Control of Pollution Act, 1974 the Air (Prevention & Control of Pollution) Act, 1981 the environment (protection) Act, 1986 and the public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of	Agreed	<p>The Project Proponent has obtained necessary approvals under Air and Water Acts, EP Act. The PP was also appraised with Public Liability Insurance act and other Court orders to look in to the provisions under it. The relevant clause of Public liability Insurance Act is enumerated as under for understanding and compliance:</p> <p><u>The Public Liability Insurance Act,1991</u> <i>Obligation for Owners</i></p> <p>➤ Provide relief in case of death or injury or</p>

<p>India/High Courts and any other Court of Law relating to the subject matter.</p>		<p>damage to property from an accident on the principle of no fault.</p> <ul style="list-style-type: none"> ➤ Draw insurance policies more than the paid – up capital* but less than Rs 50 Crores. ➤ Or for 1 Year Insurance Policy: 15 Crores. ➤ Pay additional amounts as contribution to the Environment Relief Fund. ➤ Provide any information required for ascertaining compliances with the provisions of the Act. ➤ Allow entry and inspection to ascertain compliance with the provisions of the Act. ➤ Pay the amount of an award as specified by the Collector. ➤ Comply with the directions issued in writing by the Central Government, direction may include <ul style="list-style-type: none"> i) <i>Prohibition or regulations of handling of any hazardous substances or</i> ii) <i>stoppage or regulation of the supply of electricity, water, or any other service.</i> <p><i>*" Paid-up Capital" is the market value of all assets and stocks on the date of insurance.</i></p> <p>Further, Hon'ble Supreme court directives for the industries producing Hazardous Waste is also explained as under:</p> <p><u>Supreme Court order for Hazardous Industries (October, 2003)</u></p> <p><i>"--- all industries involved in the hazardous chemicals and generating hazardous wastes display</i></p>
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			<p><i>on – line data outside the factory gate, on quantity and nature of hazardous chemicals being used in the plant, as well as water and air emissions and solid wastes generated within factory premises. If such data is not made available, the unit should be asked to show cause or even be asked to close down”.</i></p> <p>It is suggested that the Project Proponent should draw an action plan and implement with the condition.</p>
5.	The proponent shall abide by all commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit	Agreed	Agree to comply.
6.	The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.	Agreed	Already obtained and has agreed to abide by and comply with any other stipulation or condition imposed by competent authorities for environmental protection.
7.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days	Agreed	The Project Proponent has agreed to this condition.

	as prescribed under Section 16 of the National Green Tribunal Act, 2010.		
8.	The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Government at any point of time, in terms of the orders dated 2 nd august, 2017 of Hon'ble Supreme Court in WP (Civil) No. 114/2014 in the matter of Common Cause Vs Union of India & others.	Agreed, No illegal mining is being done under the Khiaraha Project.	The Project Proponent has agreed to this condition.
9.	The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & geology, in Strict compliance of the judgment of Hon'ble Supreme Court	Agreed, No any illegal mining is being done under the Khairaha Project.	The Project Proponent has agreed to this condition.
10.	This environment clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.	Agreed	The Project Proponent has agreed to this condition.

CHAPTER - 4

ASSESSMENT FINDINGS

This chapter deals with the assessment finding of compliance status of EC conditions to Khairaha Underground mine. The ICFRE team has assessed each and every point of EC Condition and provided comment on PP's response to the compliance (Table-3.1). In addition, following are the points under the areas identified for enhancing the environment performance of mines with adequate remedial measures.

4.1 MINING LEASE AND MINING

- Based on the Coal Bearing Areas (Acquisition and Development) Act, 1957 (20 of 1957) the land is acquired for Government Companies only for coal mining and activities strictly are incidental to mining purposes. Presently 478.89 ha have been notified under Section 9(i) of CBA. The present expansion proposal for production of 0.819 MTPA is for an area of 472.065 ha excluding 6.825 ha of forest land which was notified under CBA. As on date 11.432 ha has been acquired for infrastructure and approach road, remaining land shall be acquired during depillaring stage of the mines
- The mine has presently two working seams i.e. Seam-VII and Seam-VIB. The production from the mine started since 26.03.2012 by deploying SDL (Side Dump Loader) and presently coal is being exploited from the Seam-VIB by deploying one set CM (Continuous Miner).
- The mine entries have been provided for adequate access to the seam considered for exploitation and to ensure adequate ventilation, effective transport, and pumping system. The locations of mine entries are free from obstruction, as near as possible to railway siding/stock yard or CHP. The location is also easily accessible from State highway and other roads.
- Seam-VII (Top & Comb.) and Seam VI Bottom have been proposed for working by underground method of mining. Seam-VII (Top & Comb.) is the top most workable Seams followed by underlying VI Bottom seam. The panels of these seams are nomenclature by letter "T" and B respectively. Panels have 5 headings and pillar size and width of gallery as per statute and Practices in CM faces in Indian coal mines duly approved by DGMS. DGMS has approved 6m wide gallery and 4.5 m height or seam thickness whichever is less for development panels and cut off distance of 14m.

- Total production from the mine works out to be 0.819Mty with CM package.
- At present Seam-VII has been developed in MD direction by SDL and panels from T4 to T10 in west direction and T14 to T16 in east direction has been developed by Continuous Miner as per approved plan and DGMS Guidelines. Each panel having 05 headings with dimension of pillar 25.50 x 25.50 centre to centre, width of gallery is 6.0 Mtr. And height of gallery is 4.5 Mtr/Seam heights whichever is less. The rest property of Seam-VII from T1 to T3, T11, T12, T13 and T17 to T23 will be developed by the CM package.
- At present Seam-VI(B) has been developed in MD direction by SDL and B27 panel in east direction has been developed by Continuous Miner as per approved plan and DGMS Guidelines. Each panel having 05 headings with dimension of pillar 25.50 x 25.50 centre to centre, width of gallery is 6.0 Mtr. and height of gallery is 4.5 Mtr/Seam height whichever is less. The rest property of Seam-VI(B) from B1 to B20 and B21 to B26 and B28 to B39 panel will be developed by the existing CM with same methodology.
- **Surface Constraints:-**

As per the data furnished, surface constraints are as follows:-

 - 1) A 220 KV H.T line passes over the proposed property.
 - 2) Mostly covered by Agricultural land except small area as revenue forest land.
 - 3) No village is located within the property
 - 4) The property is bounded by two nos. of nala. Baisaha/Jamunia nala is on the eastern side and Sarpha nala is on the western side. Towards northern side, few tributaries are also originates from the property and joins with the above mentioned nalas.
 - 5) Few ponds are also located in scatter in the area
 - 6) A village road crosses the property from south to north direction.
- **Mining Constraints**

Around 0.50 MT of coal is getting blocked in forest patches within the lease hold area, where no mining activity is proposed.
- Overall, underground workplace environmental conditions are ergonomic and air breathable with equate illumination in accordance with DGMS standards.

4.2 HEALTH

- Project proponent is undertaking health survey for workers by conducting IME/PME as per the provisions of Mines Rule 1955 and DGMS circulars. As per statue 20% workers

from the workforce are subjected to health check up for occupational disease and NIHL. The records of such examination were checked at area hospitals Khairaha. No case of Pneumoconiosis and NIHL has been reported yet.

- Employees should be intimated about the importance of PPE through slogans, training and presentation and 100% compliance of PPE should be ensured.

4.3 COAL TRANSPORTATION

- The coal from UG is transported effectively and efficiently from face to surface. In Khairaha mine, entire coal transport is proposed by belt conveyors and material transport by haulages.
- At the face, the coal is being cut and loaded by CM into shuttle car which carries coal to feeder breaker and feeder breaker discharges coal onto the gate belt conveyor and with the help of a series of belt conveyor the coal is transported upto the surface bunker.
- Transportation of coal is carried out by fully covered trucks for road sale from coal stock yard where adequate static sprinklers are installed for dust suppression. Coal from underground is evacuated from underground through conveyors is also kept moist to keep underground environment free from fugitive dust emission.
- Coal for rake loading through trucks to railway sidings are also kept moist and transported under tarpaulin cover.
- Railway siding has dust arrester wall and green canopy with sprinkling system to arrest fugitive emission.
- Few sprinklers at coal stock yard were found not working due to mechanical fault should be repaired and made workable.
- Regular maintenance of transport route should be undertaken to avoid spillages.

4.4 LAND AND SURFACE WATER MANAGEMENT

The Khairaha Coal Block has a gentle rolling topography with a general slope towards North. The variation in surface elevations, excluding *Nala* cuttings, is from 509 m to 479 m above MSL. The area is reported to receive an annual average rainfall of about 1298 mm, which indicates that the area is prone to erosion. Hence, heavy rainfall in the area is expected to cause much degradation to the soil and surface water profile. Therefore, strict surface water conservation measures should be adopted. Proper environment management such as bio-engineering measures (garland drains, catch drains, settling tanks, etc.), pollution free maintenance of coal handling, coal stock yard and approach & transportation areas, etc., are highly essential for preventing the area from further degradation.

Mine Sump Water

Sump capacity has designed and allowed proper settling of silt and sediment materials and provided adequate number of pumps to pump out the UG mine sump water to the surface area through surface settling tanks, the clean water is partly used for mining operations, dust suppression, plantation activities, washings, etc. The excess water is drained into Baisaha nala for irrigation purpose of the villagers nearby ML area.

A total of 5 underground mine sumps are exist in the UG coal mine namely,

- **UG Sumps:** Among 5 UG mine sumps, 3 UG Sumps namely, 28Level/1Deep West sump water (Primary UG ST) is being pumped into 27Level/1Deep East (Secondary ST) followed by 24Level/1 Deep East (Tertiary UG ST) and some part of the sump water after settling in the 2 stage surface STs which is located at the backside of the Project Office and the clean water is drained through RCC drain into Baisaha *Nala* located towards East of the lease area, which is used for agricultural purpose.
- **4th UG Sump:** The remaining part of sump water of 28Level/1Deep West (Primary UG ST) is pumped into 16Level/1Deep East (Secondary UG ST). After settling, the water is drained into surface settling tank located near substation, the clean water passed through pressure filter for Continuous Miner operation in the UG and some part of filter water is also used for sprinkling and other infrastructure needs.
- **5th UG Sump:** It is located at Seem VI bottom/0Level/1 rise pumped into 2 stage surface STs which is located at the backside of the Project Office and the clean water is drained through RCC drain into Baisaha *Nala*.

Settling Tanks (STs):

Total of 3 settling tanks (STs) have made on the surface of the UG mine. Among them, 2 STs (1 Lakh litre capacity of each ST) are located at the back side of the Project Office and 3rd ST is located near substation.

After settling of the silt and sediments, the mine sump water is drained through RCC drain into these STs. Part of the clean water passed through pressure filter for Continuous Miner operation in the UG and also used for sprinkling and other infrastructure needs and remaining excess water drained into seasonal Baisaha *Nala* for irrigation purpose by the villagers.

Garland/Catch Drains:

A *kutch*a garland drain has been made all along inside the boundary wall in the mine office premises but it is not continuous. At some places, the drain is completely filled with silt and sediments and weedy plants. Hence, it is suggested that it has to be maintained properly by desilting at periodical intervals preferably before and after monsoon seasons.

The mine sump water is drained through the pucca RCC catch/garland drains and passed through the STs and the clean water is finally discharged into Baisaha *Nala*, which is used for agricultural purpose.

Seasonal Ponds

Based on the Surface Plan and as per physical verification of the terrain, there are two seasonal ponds and one low land area found in the ML area.

Pond-1: It is located towards North within the mine lease area and its area is 5112 sq.m. During the inspection, no water is available in the pond. It is fully covered with aquatic weeds such as *Ipomoea carnea*, *Typha angustifolia*, etc. The bund of the pond is fully covered with weedy plants like *Lantana camara*, *Parthenium hysterophorus*, *Xanthium strumarium*, etc.

Pond-2: It is located towards Southern side within the lease area and its area is 6142 sq.m. The team is unable to observe the status of the pond due to paddy fields and no proper approach road.

Low land area: It is located towards NE within the lease area and its area is 9152 sq.m., which is partly filled with water. It is partially filled with aquatic weeds like *Ipomoea carnea*, *Typha angustifolia*, etc.

Nalas/Streams:

Based on Surface Plan/Survey of India Topo Sheet and as per the physical verification of the ML area, there are two seasonal *Nalas viz.*, Sarpaha and Baisaha/Jamunia *Nalas* flowing at the Western and Eastern mine boundaries respectively and finally discharging into Son River. As per EIA report (June 2018), the HFL of the Baisaha *Nala* as recorded in the vicinity of the project is 483.60 m above MSL whereas the HFL of Sarpaha *Nala* recorded as 484 m above MSL near the project, whereas the Khairaha Block has a gentle rolling terrain with a general slope towards North. The variation in surface elevations, excluding *Nala* cuttings, is from 509 m to 479 m above MSL. The Khairaha Coal Block is at some areas lower than HFL of the *Nalas*. Hence, the Project Proponent has to take due care of the Khairaha Coal Block from surface

inundation during the rainy season by providing an earthen bund/embankment wherever is needed has to be made all along the *Nala* boundaries for better management.

4.5 FOREST PATCHES:

Based on Surface Plan/Survey of India Topo Sheet and as per the physical verification, there are 5 forestry patches (Total area: 6.825 ha) have been found in the ML area.

Forest Patch-1: It is the largest forest patch covering an area of 5.094 ha which is located towards NW side of lease adjacent to the Sarpha *Nala*. Part of the area is under cultivation by the local villagers and remaining part of the area is having sparse vegetation.

Forest Patch-2: It is located towards Northern side in an area of 0.1 ha within the lease area.

Forest Patch-3: It is located towards Western side in an area of 0.332 ha within the lease area.

Forest Patch-4: It is located towards SW side in an area of 0.166 ha, within the lease area.

Forest Patch-5: It is located towards SE side in an area of 1.133 ha within the lease area.

4.6 OB DUMP MANAGEMENT

Since it is an underground coal mine, there is no external OB dump observed in the ML area. However, small quantity of OB waste generated during the initial years of operations are stored in and around the mine entrance and it has been utilized completely as packing materials in haulage tracks.

Retaining/Toe walls:

Since it is an underground coal mine, there is no external OB dump observed on the surface of the lease area. So, there is no retaining/toe walls made on the surface of the lease area.

Top Soil Management:

Since it is an underground coal mine, there is no top soil dump observed in the ML area.

4.7 GROUND WATER MONITORING

Details of water sampling are as per follows with standard practices. The quality of drinking water samples were compared with respect to IS 10500:2012 specifications and the surface water quality were compared with respect to IS 2296:1982 class C. There is no quality deterioration due to coal mining operation in ground water.

Water Samples				
Code	Name of Location	Latitude	Longitude	Remarks
D/W-1	Tap Water, Khaliraha Project Office	23.160362°N	81.46038°E	Drinking Water
D/W-2	Ground Water, Chirhiti Village	23.151806°N	81.480675°E	Drinking Water
D/W-3	Ground Water, Badri Village	23.16287°N	81.443141°E	Drinking Water
S/W-1	Pond, Chirhiti Village	23.144192°N	81.48645°E	Surface Water
E/W-1	Settling tank (Before Settling)	23.160326°N	81.46143°E	Effluent water
E/W-2	Settling tank (After Settling)	23.16002°N	81.46172°E	Effluent water

4.8 PLANTATIONS

Greenbelt Plantation

The greenbelt will act as a barrier to trap the suspended dust particles, suppresses air and noise pollutants. It is also important to create a greenbelt with tall seedlings (>1 m height) of fast growing native tree species to hasten the process of greening the area and also promotes enrichment of flora and fauna.

Thick greenbelt has been raised all around the bunker, coal stock yard and mine office premises through the M. P. Rajya Van Vikas Nigam, Umaria during the year 2011, by planting of 5000 nos. of both native and exotic tree species like, *Acacia nilotica*, *Albizia lebbek*, *Albizia procera*, *Azadirachta indica*, *Butea monosperma*, *Ficus racemosa*, *Ficus religiosa*, *Leucaena leucocephala*, *Mangifera indica*, *Moringa oleifera*, *Murraya koenigii*, *Neolamarckia cadamba*, *Peltophorum pterocarpum*, *Phyllanthus emblica*, *Pongamia pinnata*, *Psidium guajava*, *Soymida febrifuga*, *Syzygium cumini*, *Ziziphus mauritiana*, etc.

In addition, the project proponent has also raised plantation around the mine office premises during the year 2018 by planting 650 plants

Further, it is suggested that, the PP has to develop a greenbelt all along within the mine lease area and on both sides of the approach/transport roads as per the EC of MoEF&CC.

Avenue Plantation (Transport/Approach Roads)

Very sparse plantation/vegetation was observed with several gaps all along the approach/coal transport roads within the lease area having plant species such as *Acacia nilotica*, *Albizia procera*, *Azadirachta indica* and *Leucaena leucocephala*. Hence, the Project Proponent (PP) has to raise three tier thick plantations all along the approach/transport roads as per EC condition with tall, fast growing, fruit bearing native plant species.

Railway siding

Thick vegetation/plantation has made around railway siding and CHP by planting both native and exotic plants like, *Acacia auriculiformis*, *Acacia nilotica*, *Ailanthus excelsa*, *Albizia procera*, *Alstonia scholaris*, Bamboos, *Cascabela thevetia*, *Cassia siamea*, *Dalbergia sissoo*, *Delonix regia*, *Eucalyptus* species, *Gliricidia sepium*, *Leucaena leucocephala*, *Melia azedarach*, *Peltophorum pterocarpum*, *Pithecellobium dulce*, *Prosopis juliflora*, *Ziziphus mauritiana*, etc.

4.9 R&R and CSR ACTIVITIES

It is evident from the land use details of this project that 436.217 ha land are private agricultural land belonging to 524 PAFs from the nearby villages. Till date, only 11.432 ha of private land from 27 private land owners have been acquired for development of the infrastructures for the project. These PAFs have been compensated as per the R&R Policy of the CIL. The remaining private land is yet to be acquired for which needful initiatives are being taken by the project authorities. Various social welfare activities including education, health, drinking water supply and other infrastructures development are being carried out in the nearby villages under the CSR of the company.

4.10 ENVIRONMENT MANAGEMENT PLAN AND MONITORING

Monitoring of pollution through related environmental parameters is an essential requirement of EC granted by MoEF&CC. The project has been regularly carrying out such monitoring as under

- i. Ambient air quality
- ii. Water and effluent quality
- iii. Noise levels

The above monitoring is carried out by laboratory of CMPDI, which is approved by MoEF&CC. Analysis is done at NABL accredited lab of CMPDI at Mahendragarh and Bilaspur.

4.10.1 Monitoring of Air quality

- Four Sampling locations in core zone and four in buffer zone were fixed as per meteorology and consultation with MPPCB.
- Four stations in buffer zone are spread in four directions of mine (one in each direction)
- Post-project environmental monitoring was carried for SPM, PM₁₀, Sulphur Dioxide (SO₂) and Oxides of Nitrogen (NO_x) at eight locations through CMPDI and it is a CPCB recognized and NABL accredited laboratory. Respirable Dust Sampler is used for monitoring

of PM₁₀, SO₂, NO₂ as per NAAQS 2009 at a frequency of once in a fortnight (24 hourly sampling). PM 2.5 was not monitored at present.

- Sampling of heavy metals done through EPM 2000 filter paper as per NAAQS 2009 once in six months.
- Data on ambient air quality for SPM, PM₁₀, SO₂ and NO₂ data were compared with MoEF Notification, GSR-742 (E), dated 25.09.2000.
- Data of Pb, Ni and As can only be compared by NAAQS 2009, Other heavy metals, there is no standard available for ambient air in mining regulations issued in 2000 and NAAQS 2009.
- Order for CAAQMS station is already placed in august 2019 and yet to be installed.
- Dust Masks and ear plugs were distributed amongst workers and verified with records. Proponent is advised to display some benefits of PPE at pit head office for awareness and benefits of using PPEs. Some motivational lectures may be organized at VTC to ensure effective use of dust mask and dust respirators by workers.
- Water sprinklers were installed at coal stock yard and railway siding.
- Railway siding were barricaded with brick wall and green canopy as per NGT instructions.
- Mobile water sprinkler is available for road dust suppression.
- Transportation is done in covered trucks. Photographs attached.
- Safety guidelines and use of PPE in underground was as per DGMS provisions.
- Record of dust analysis, ventilation survey, illumination survey, noise measurements, and gas analysis of underground were verified through record in safety office and field visit.

4.10.2 Water quality

Water samples have been collected as per standard practice. The effluent samples were collected and analyzed for four parameters on fortnightly basis. Effluent samples were also analyzed for 27 parameters on half-yearly basis. The ground and surface water samples were collected and analyzed for 25 and 17 parameters respectively on quarterly basis. The analytical results are compared with Schedule –VI prescribed by MoEF&CC. Results show that most of the parameters are within the permissible limits.

4.10.3 Noise measurement

Ambient Noise levels are monitored at eight locations four in core zone and four in buffer zone and findings were compared with the Noise Pollution (P&C) rules 2000. All the locations values are within prescribed limit.

Worksite noise monitoring are also carried out at various locations and compared with statue of DGMS. Most of the places values are within limit, however protection devices such as ear plugs are provided to each worker. Proper maintenance of machines to reduce noise and vibration is also scheduled.

4.10.4 Monitoring of traffic

There is no study on traffic monitoring available.

4.10.5 Environment Management

- The project authority has established Environment Management Cell in the HQs Level with highly qualified staff. But it was observed that PP has not appointed any senior executive in the field of Environmental Management in the mine area or cluster of mines so far. Hence, the project authority should take necessary steps to strengthen the Environment Management Cell in the Project area.

4.11 GENERAL RECOMMENDATIONS

- As stipulated, the Project proponent is advised to monitor the subsidence movement on the surface and around the various areas and its impact on natural drainage pattern, water body and road structure.
- Efforts must be taken to ensure effective use of PPE issued to workers through sensitization program and slogans at pit top.
- Analytical facilities should be established at project site for on spot analysis of pollutants like pH, TDS, etc., and monitoring be carried out by strengthening with qualified staff and chemists. At present it is being carried out by CMPDI through lab at Bilaspur and Manendragarh.
- Self assessment audit of compliance should be initiated and their records be prepared for continual improvement and for third party environmental audit.
- Core zone is having limited surface area due to which monitoring stations are very close to each other without varying operating conditions. Therefore one station can be reduced by merging station of lamp room and managers office.
- Monitoring locations must be free from obstruction, so that free air can be passing through sampler. Efforts must be taken to provide platform for providing sufficient height to sampler at least in core zone.
- Monitoring data of Pb, Ni and As only can be compared with NAAQS 2009, for other heavy metals mentioned in EC didn't have standards for ambient air.

- Report submitted by CMPDI must incorporate location plan along with details of location for better interpretation. Predominant wind direction during monitoring must be incorporated in report to understand dispersion of pollutants.
- Seasonal variation is not seen in monitoring report data.
- Proper attention must be given for running of all sprinklers and air pollution control strategies.
- Regular Maintenance of bypass road to be ensured to avoid fugitive dust emissions due to road and transportation.
- Vocational/professional trainings and skill development training to the candidates from amongst the PAFs may be imparted under the CSR head to help them for their self-employment. Proper documentation of the various activities conducted under the CSR may be made in the form of booklet.
- At some places, the garland/catch drains are completely filled with silt and sediments and weedy plants. Hence, it is suggested that it has to be maintained properly by de-silting at periodical intervals preferably before and after monsoon seasons.
- The Khairaha Coal Block is at some areas lower than HFL of the Sarpaha and Baisaha/Jamunia *Nalas*. Hence, the Project Proponent has to take due care of the Khairaha Coal Block from surface inundation during the rainy season by providing an earthen bund/embankment wherever is needed has to be made all along the *Nala* boundaries for better management.
- Thick greenbelt all along within the mine lease area and gap plantation on both sides of the approach/transport roads has to be made as per the EC of MoEF&CC, Govt. of India, with tall, fast growing, fruit bearing native plant species.

PLATES



Plate 1: Team from ICFRE and Khairaha UG under discussion on various issues related to Khairaha UG coal mine



Photo 1: Fencing around Railway siding at Burhar



Photo 2: Water sprinkling at pit top coal loading unloading

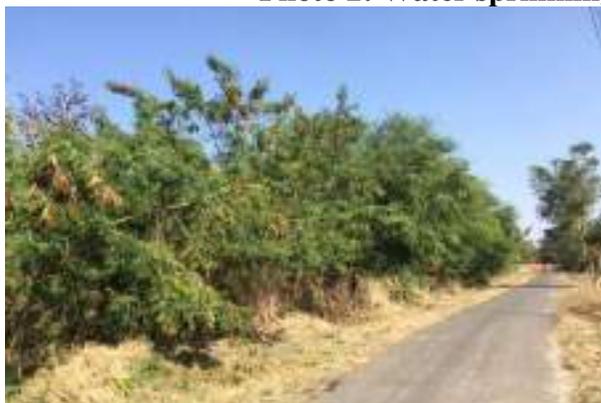


Photo 3: Plantation along approach roads



Photo 4: Control measures for fugitive emissions during transportation

Plate 2: View of various processes under Khairaha UG coal mine



Photo 1: Silt settling units



Photo 2: Water discharge canal



Photo 3: Team ready for inspection of underground mine

Plate 3: View of various processes under Khairaha UG coal mine



Photo 1: Covered belt conveyor and dispatch point from pit



Photo 2: View of underground mine



Photo 3: View of sump and water pump in the underground mine

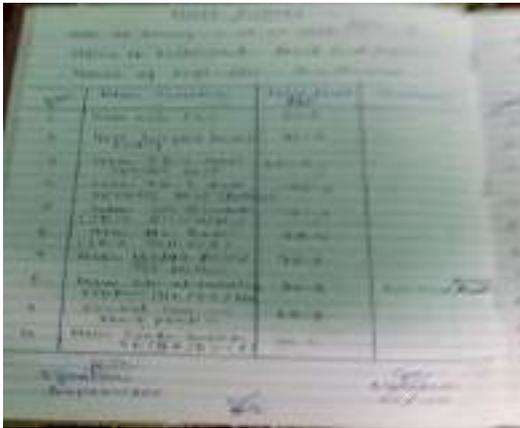
Plate 4: View of various processes under Khairaha UG coal mine



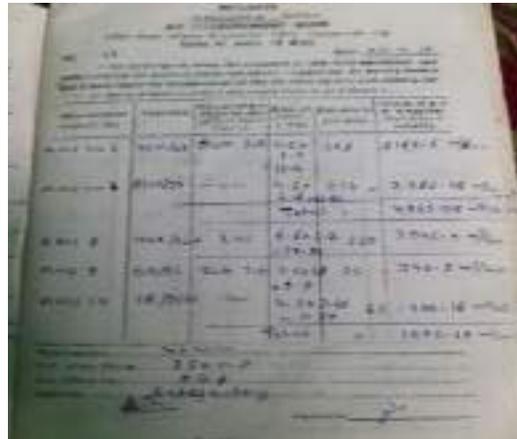
Sample copy of dust survey record



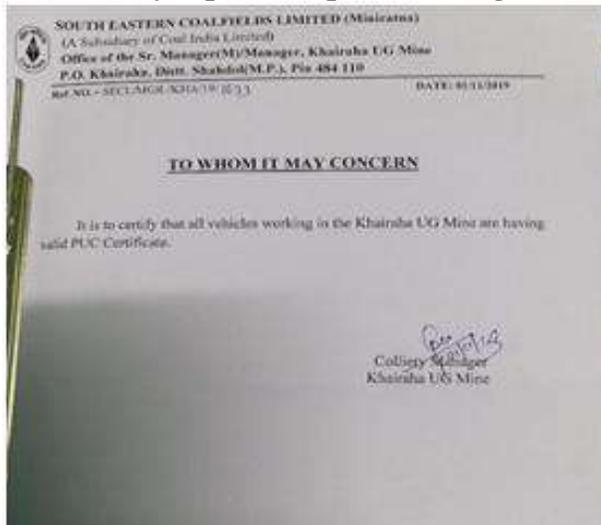
Sample copy of Gas analysis report of underground



Noise survey report sample of underground



Sample of underground ventilation survey



PUC certificate and certificate of SECL for ensuring on all vehicles

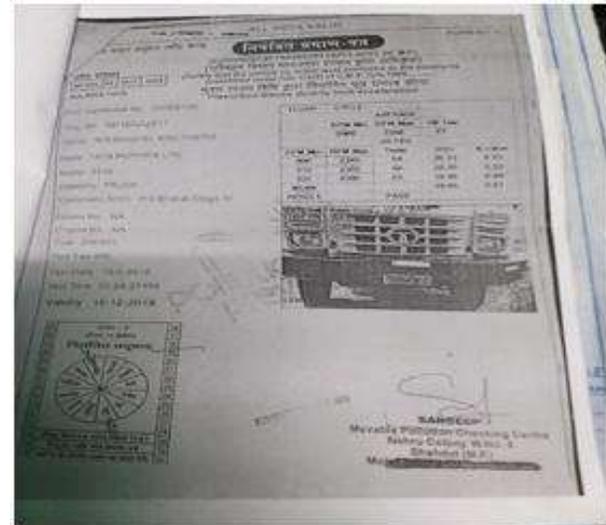


Plate 5: Copies of documents showing records related to dust, gas analysis, noise, ventilation and PUC under Khairaha UG coal mine



Construction of ghat at Indira Nagar pond near New Amlai



Construction of steps in Sagra pond at Patna Kala village



Construction of Anganbadi building at Anganbadi Centre no.2 of Deohara Panchayat



Toilets constructed under Swachh Vidyalaya Abhiyan(SVA)



Health checkup camp for nearby villagers



Construction of first floor verandah at Maa Sharda Kanya Vidyapeeth Pondki

Plate 6 : Various activities carried out under CSR at various villages at Sohagpur area

ANNEXURES

Copy of offer letter from SECL for 3rd party assessment of EC Compliance of Khairaha UG

"Under Jurisdiction of Bilaspur High Court Only"
 SOUTH EASTERN COALFIELDS LIMITED
 OFFICE OF THE GENERAL MANAGER, SOHAGPUR AREA,
 P.O. Dhanpuri – 484 114, Dist.: Shahdol (M.P.)
 Phone: (07652) 250302, Fax: (07652) 250882

No: SECL/SGP/ENVT/2019/57/  Date: 05.04.2019.

To
 The ADG (Environment Management)
 ICFRE, Dehradun, Uttarakhand 248006



Sub: Regarding estimate for 3rd party assessment of EC compliance under scope of MOU between CHL and ICFRE.

Ref: 1. EC letter of Khairaha UG (J-11015/72/2004-IA-II (M) Date: 11.01.2019).
 2. MOU Dated 01/09/2016 b/w CHL and ICFRE.
 3. SECL letter No/No: SECL/SGP/ENVT/20/ / Date: 20.03.2019,
 4. ICFRE Email dated: 25.03.2019.

Dear Sir,
 It is to inform you that Khairaha Underground mine is a coal mine of Sohagpur area, SECL (a subsidiary of CHL). For this mine, the MoEFCC, New Delhi has granted environmental clearance (EC) vide above referred letter dated 11/01/2019. In EC there is a condition of 3rd Party assessment of EC compliance through agency like ICFRI/ NEERI/IT.

For this type of Work, A MOU dated 01/09/2016 has been signed between CHL and ICFRI. Under Article III, point no 1 of MOU, there is scope of 3rd party assessment of EC compliance. The MOU is valid up to 01/09/2019.

For above work, we have already contacted with ICFRE's concerned person vide Letter dated 20.03.2019, but with the mail dated 25.03.2019, ICFRE has refused the proposal due to insufficient experience of Underground mining project. In this regard it is to inform you that the EC conditions of Opencast mine and Underground mine are not different and the compliance of the Khairaha UG EC conditions are of surface features/Activities only, the committee need not to go underground to check the compliance status of the mine necessarily.

Therefore, It is once again requested to you for acceptance of the proposal, and to kindly provide an estimate for carrying out 3rd party assessment of EC compliance for Khairaha UG mine, So that further action can be taken to award the job of 3rd party assessment of EC compliance.

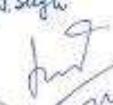
Thanking You

Enclosed: Copy of EC and MOU.

D-K. Chandrakar
 9425533401
 With Regards

 General Manager
 Sohagpur Area

Copy to:
 1. GM(envt)
 2. SAM Rajendra Subarea.
 3. NO (Envt), SGP.

D. AN. Singh

 24/4

Nodal Officer (Envt.) ←
 → 07587390961
 Sohagpur Area

Pankaj Kr. Gautam

Copy of letter of submission of proposal from ICFRE, Dehradun submitted to SECL for 3rd party assessment of EC Compliance of Khairaha UG

No. 1-23/2006-ADG (EM)EOH/ICFRE – Part file
Environment Management Division
Indian Council of Forestry Research & Education
(An Autonomous Body of Ministry of Environment, Forest & Climate Change, Govt. of India)
P.O. New Forest, Dehradun – 248 006

Dated: 03.05.2019

To
The General Manager
Sohagpur Area
South Eastern Coalfields Limited
Office of the General Manager, Sohagpur Area
P.O. Dhanpuri – 484 114
District - Shahdol (M.P.)

Fax No. : (07652) 250882

Subject: Submission of proposal for 3rd party Assessment of Compliance of Environmental Clearance conditions imposed by MOEF&CC, Govt for Khairaha UG Coal Mine of South Eastern Coalfields Limited, Sohagpur area, Shahdol district, Madhya Pradesh' – reg.

Reference: Your office letter No. SECL/SGP/ENVT/2019/57/01 dated 05.04.2019.

Sir,

With subject and reference as cited above, this is to intimate that the competent authority in ICFRE, Dehradun has accorded approval for taking study on the subject as mentioned above. Accordingly, a copy of proposal for '3rd party Assessment of Compliance of Environmental Clearance conditions imposed by MOEF&CC, Govt for Khairaha UG Coal Mine of South Eastern Coalfields Limited, Sohagpur area, Shahdol district, Madhya Pradesh' is enclosed for your consideration and formal award of study.

As per this proposal, the estimated cost for the work has been worked out to be **Rs. 17.96 lakhs excluding GST and other taxes, as applicable**. All the work may be completed in a tentative time of 04 months from the receipt of 1st installment.

This is for information and needful please.

Thanking you,

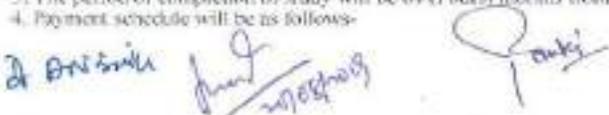
Encl.: As above.


Yours faithfully,
(Dr. Sudhir Kumar)
ADG (EM)

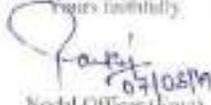
*Also sent through
e-mail dt. 13.05.19.
Anand
13/05/19*

o/c

Copy of Letter of Award of assignment to the ICFRE from SECL

SOUTH EASTERN COALFIELDS LIMITED (A Mini Raha Company) POST BOX NO. 60 Regd. Office: Scepter Road, Bilaspur Dist.- Bilaspur (CG) 495006 Website: www.secl.co.in C/N: L10102CTP98SGC0001161		OFFICE OF THE GENERAL MANAGER: SOHAGPUR AREA, P.O. Dhanpuri – 484 114, Dist.: Shahdol (M.P.) Phone: (07652) 250302, Fax: (07652) 250882 Email: gmsohagpur@secl.co.in GSTIN: 23AAJCS2066E1ZR	
No. SECL/SGP/ENV/ /19/ 127		Work order	Date: 07.08.2019.
To, The ADG (EM) Indian Council of Forestry Research and Education (An Autonomous body of MoEF & CC, GOI) P.O. New Forest, Dehradun- 248008			
Subject: Award of work for "3 rd Party assessment of compliance of Environmental Clearance condition imposed by MoEF&CC, GOI for Khaikaha UG coal mine of South Eastern Coalfields, Sohagpur area District- Madhya Pradesh."			
Reference: Your offer/proposal vide letter no. 1-23/2006-ALG (EM)ICF/CFRE-part file dated 03.05.2019.			
Dear Sir, In response to the above-mentioned offer/estimate, this is to communicate to you that the approval of Competent Authority obtained to award the subject work to Institute of Indian Council of Forestry Research and Education (ICFRE), Dehradun for an amount of Rs. 17.96 lakhs (Excluding 18% GST) and subsequently the proposal has been financially concurred vide FC No. FC/SGP/AREA/R/19-20/26 dated 01.08.2019. In view of the above the aforesaid work is being awarded to (ICFRE), Dehradun for an amount of Rs. 17.96 lakhs (Excluding 18% GST) on the terms and conditions as indicated below, for the following objectives and scope of work:			
Objectives & Scope of work			
Scope of work includes the 3 rd party assessment of EC compliance imposed by MoEF&CC, GOI for Khaikaha UG mine of South eastern coalfields limited, Sohagpur area, district- Shahdol, Madhya Pradesh in the light of Environmental clearance accorded to the project vide MoEF&CC letter F.No.11015/72/2004-IA-II (M) dated 11.01.2019. Various aspects of the studies to be covered the following: -			
Approach and Methodology			
EC compliance assessment for mine lease area would be based on the compliance and its performance, it is to assess the completeness and accuracy of compliance of the activities in accordance with relevant Environmental Law, regulations, Standards and policies, both at the national and regional/local level as well as international levels (where appropriate and relevant). The work of "Environmental Clearance compliance assessment" would include the following approach:			
<ol style="list-style-type: none"> 1. Preparation of assessment checklist; 2. Collection of relevant background documents and desk review. 3. Site inspection of mining area- site facilities, land & water management structures; Afforestation activities, Soil erosion management structures (check dams, retention wall), Dump sites, boundary fence. 4. Review of on-site documentation, monitoring data and mechanism in place relevant to assessment. 5. Discussion/ consultation with concerned project staff on the development consent, other approval conditions, infrastructure and operation to comply the EC conditions. Consultation meeting stakeholders; including internal meeting, data collection and verification. Review of modifications made and previous assessment recommendations, if any. 6. Analysis of collected/gathered information/data, maps and observations and their interpretation. 7. Compilation of assessment report with recommendations and action plan. 			
Audit team			
the study proposed to be undertaken for "3 rd party assessment of EC compliance imposed by MoEF&CC, GOI for Khaikaha UG mine of South eastern coalfields limited, Sohagpur area, district- Shahdol, Madhya Pradesh" will be carried out by a team of experts from the ICFRE, its institutes and its domain experts.			
TERMS AND CONDITIONS			
<ol style="list-style-type: none"> 1. Total value of work is Rs. 17.96 Lakhs (Seventy Lakhs ninety-six thousand only) excluding 18% GST. 2. The date of commencement of work shall be reckoned from 10th day from date of issue of work order. 3. The period of completion of study will be 04 (Four) months from date of 1st installment. 4. Payment schedule will be as follows- 			
			

- a) 75 % Payment – 1st installment, - As an advance payment on acceptance of work order only on receipt of pre-scripted bill from ICFRE, Dehradun.
 - b) 15 % Payment – 2nd installment, - After Submission of Draft Report.
 - c) Balance 10% Payment - Final Report submission and acceptance of report as 3rd installment.
 - d) All the three installments of Bill should include their GST separately.
5. The reports shall be submitted in 2 (Two) Hand copies along with soft copy to the General Manager, Solapur Area SECL.
 6. The proposal has been financially concurred vide FC No. FC/SGP/AREA/R/19-20/26 dated 01.08.2019 for Rs.17.86 Lakhs (excluding 18% GST) and the paying authority will be Area Finance Manager, Solapur Area SECL.
 7. 18% GST is applicable for the aforesaid study & ITC is available to SECL in this account.
 8. TDS as per GST Law and Income Tax law will be deducted as per prevailing law.
 9. Bill should be submitted in prescribed format as per GST Act.
 10. Penalty may be imposed as per company rule in the case of delay in the project completion.
 11. The Sub-Area Manager, Rajendra Sub-Area is the controlling officer for the work in respect of Khairaha UG Mine, respectively.
 12. Other terms and conditions are as per the MoU signed between CIL and ICFRE, and the offer letter given by ICFRE should be complied.

Yours faithfully,

07/08/19
Nodal Officer (Envt)
Solapur Area

Copy to:-

1. GM (Envt), SECL, Bilaspur
2. GM, Solapur Area
3. AFM, Solapur Area
4. Sub-Area Manager, AHD Sub-Area, Sub-Area Manager, Rajendra Sub-Area
5. Office copy

Contact No.

1. Colliery Manager, Khairaha UG- 7587291016
 2. Nodal officer (Envt), Sgp- 7587390961
- Email ID: envt_sgp@secl.com

Copy of EC letter from MoEF&CC for Khairaha UG Mine

F. No.J-11015/72/2004-IA-II (M)
Government of India
Ministry of Environment, Forest and Climate Change
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan
Jorbagh Road, N Delhi - 3
Dated: 11th January, 2019

To

The General Manager (W B P & Environment)
M/s South Eastern Coalfields Ltd,
W B P & Environment Department,
Seepat Road,
Bilaspur - 495 006 (Chhattisgarh) Email: gmenvtsecl@gmail.com

Sub: Expansion of Khairaha Underground Coal Mining Project from 0.585 MTPA to 0.819 MTPA of M/s South Eastern Coalfields Limited in located in District Shahdol (Madhya Pradesh) - Environmental Clearance - reg.

Sir,

This refers to your letter No.SECL/BSP/ENVT/Khairaha UG/18/6932 dated 18th June, 2018 along with online proposal No. IA/MP/CMIN/75469/2018 dated 16th July, 2018 on the above mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for revalidation of environmental clearance dated 28th July, 2005 as mandated under the Ministry's Notification dated 6th April, 2018, and the proposal for grant of environmental clearance to the expansion of Khairaha Underground Coal Mining Project form 0.585 MTPA to 0.819 MTPA in an area of 472.065 ha of M/s South Eastern Coalfields Limited located in Tehsil Burhar, District Shahdol (Madhya Pradesh).

3. The proposal was considered by the sectoral Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Sector in its meeting held during 13-14 December, 2018. The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under:-

- (i) The project was accorded environmental clearance by the Ministry vide letter dated 28th July, 2005 for production capacity of 0.585 MTPA in mine lease area of 513.50 ha.
- (ii) The Latitude and Longitude of the project site are 23°08'08" to 23°10'23" North and 81°26'48" to 81°28'16"East respectively. The project site lies in GSI Topo-sheet Number 64 E/8 of Survey of India.
- (iii) Joint Venture: No Joint Venture
- (iv) Coal Linkage : Thermal Power Stations
- (v) Employment generated / to be generated: 529
- (vi) Benefits of the project: Apart from earning revenue for the government, this coal Mine will bridge demand-supply gap of coal in the country and will provide opportunity of employment to the project affected villagers in the project and allied industries.
- (vii) The mine lease area as per the environmental clearance dated 28th July, 2005 is 513.50 ha. In notification under Section 9(i) of CBA, the actual land comes out to be 478.89 ha. The present expansion proposal, for operations in phase-I, is for 472.065 ha of mine lease area which excludes 6.825 ha of the forest land from the notified area under CBA.



(viii) The land usage of the project will be as follows:

Present land use

S. No.	Land use	Area(ha)
1.	Agricultural Land	424.785
2.	Forest Land	0
3.	Waste Land	25.699
4.	Grazing Land	0
5.	Surface water bodies	1.295
6.	Settlements(Infra. & Road)	10.239
7.	Settlements(Infra. & Road) outside ML area	1.193
8.	Others (Govt. Land)	8.854
	TOTAL	472.065

Pre mining

S.N.	Landuse	Within ML Area (ha)	Outside ML Area (ha)	TOTAL (ha)
1.	Agricultural Land	424.785	--	424.785
2.	Forest Land	--	--	--
3.	Waste Land	25.699	--	25.699
4.	Grazing Land	--	--	--
5.	Surface water bodies	1.295	--	1.295
6.	Settlements(Infra. & approach road)	10.239	1.193	11.432
7.	Others (Govt. Land)	8.854	--	8.854
	TOTAL	470.872	1.193	472.065

Post mining

S. No.	Particulars	UG Quarry Area (ha)	Safety zone (ha)	Infrastruct ure (ha)	R&R site (ha)	Land for Nala diversion (ha)	Total (ha)
1.	Afforested Area	--	6.000	2.000	--	--	8.000
2.	Cultivable Land	453.338	--	--	--	--	453.338
3.	Water body	--	--	--	--	--	--
4.	Other Void area	--	--	--	--	--	--
5.	Other water bodies	1.295	--	--	--	--	1.295
6.	Built-Up Area	--	--	9.432	--	--	9.432
Total		454.633	6.000	11.432	--	--	472.065

(ix) Total balance mineable reserves as on 1st April, 2018 is 13.385 MT.

(x) The coal grade is G-6 & G-7. The average gradient is 1 in 23. There will be 3 seams with thickness ranging up to 4.72 m, but only two seams are workable.

(xi) Total estimated water requirement is 989 KL/day. The level of ground water ranges from 0.08 m to 10.90 m.

(xii) The method of mining is Mechanised Board & Pillar method with SDL & Continuous Miner.

(xiii) Degree of gassiness of seams : Degree- I

(xiv) The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.

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- (xv) The life of mine is 17 years as on 1st April, 2018.
- (xvi) Transportation: Coal transportation in pit through belt conveyor, Surface to Siding by covered tipplers, siding to consumers by railway and to local consumers by covered trucks.
- (xvii) There is R & R involved. There are 524 PAFs.
- (xviii) Cost: Total capital cost of the project is Rs. 8833.03 Lakhs. CSR Cost is 2% of the average netprofit of the Company for the three immediate preceding financial years or Rs.2.00 per tonne of coal production of previous year whichever is higher. R&R Cost is Rs.376 Lakhs. Environmental Management Cost is Rs.75.16 lakh.
- (xix) Baisaha and Sarphanalla is located in east & west side beyond 100 mtr. from mine boundary and 2 nos. seasonal ponds exist within the project boundary
- (xx) Approvals: Revised mining plan for 0.819 MTPA has been approved by SECL Board on 25th November, 2017.
- (xxi) Subsidence: Caving is proposed as method of extraction for Khairaha Underground Mine. The subsidence prediction report was prepared by CMPDI in March, 2018. The surface topography of the mine is mostly flat in nature. The depth of coal seams of the mine varies from 52 meter to 107 meter for seam VII and 77 meter to 137 meter for seam VI bottom.
- (xxii) Ground Water Clearance: Applied vide Application No.21-4/592/NP/MIN/2017 dated 28th December, 2017 to Central Ground Water Authority.
- (xxiii) No wildlife sanctuary is within 10 km from the mine boundary
- (xxiv) Forestry issues: No forest area involved.
- (xxv) There are no court cases/violation pending with the project
- (xxvi) Public hearing for the last EC with capacity of 0.585 MTPA in an area of 513.5 ha was held on 30th October, 2003.
- (xxvii) Plantation is taken up in areas which are under All Right or under Surface Right. The area thus available is very small and considering all features within this small area, a very little space is made available for plantation. Moreover, the anticipated level of pollution is also significantly less since except for surface transport of coal, no other mining activity is made on surface. As such requirement of plantation for arresting the air and noise pollution is also significantly less.

4. The sectoral Expert Appraisal Committee in its meeting held during 13-14 December, 2018 has recommended the project for revalidation of the existing environmental clearance as mandated under the Ministry's Notification dated 6th April, 2018 and grant of environmental clearance to the expansion project. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby revalidates the existing environmental clearance dated 28th July, 2005 and accords environmental clearance to the **Expansion of Khairaha Underground Coal Mining Project of M/s South Eastern Coalfields Limited from 0.585 MTPA to 0.819 MTPA in an area of 472.065 ha located in Tehsil Burhar, District Shahdol (Madhya Pradesh)** for a period of one year, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the terms & conditions and environmental safeguards as under:-

- (i) The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.
- (ii) The project proponent shall obtain Consent to establish from the State Pollution Control Board for capacity of 0.819 MTPA prior to commencement of the increased production.
- (iii) Transportation of coal from face to coal heap shall be carried out by belt conveyor. Further, the coal transportation from coal heap to Coal Handling Plant shall be carried out through covered trucks.
- (iv) Mitigating measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.
- (v) Sufficient coal pillars shall be left un-extracted around the air shaft (within the subsidence

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influence area) to protect from any damage from subsidence, if any.

(vi) Solid barrier shall be left below the roads falling within the block to avoid any damage to the roads and no depillaring operation shall be carried out below the township/colony.

(vii) Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.

(viii) Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings should be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clay soil/suitable materials.

(ix) Garland Surface drains (Size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rain fall and maximum discharge in the area adjoining the mine sites. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.

(x) Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.

(xi) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 0.819 MTPA.

(xii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(xiii) A third party assessment of EC compliance shall be undertaken through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

4.1 The grant of environmental clearance is further subjected to compliance of the generic conditions as under:

(a) Mining

(i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.

(ii) No change in mining method *i.e.* UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).

(iii) Mining shall be carried out as per the approved mining plan (including mine closure plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).

(iv) Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.

(v) No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.

(vi) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

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(b) Land reclamation and water conservation

(i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).

(ii) Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

(iii) Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.

(iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, alongwith fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

(v) A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.

(vi) Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.

(vii) Native tree species shall be selected and planted over areas affected by subsidence.

(viii) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(c) Emissions, effluents, and waste disposal

(i) Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of $PM_{10}/PM_{2.5}$) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

(ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area in a phased manner. The green belt comprising a mix of native species shall be developed all along the major approach/ coal transportation roads.

st/

(iii) The transportation of coal shall be carried out as per the provisions and route proposed in the approved Mining Plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.

(iv) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.

(v) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

(vi) Coal handling plant shall be operated with effective control measures viz. bag filters/water or mist sprinkling system etc to check fugitive emissions from crushing operations, conveyor system, transfer points, etc.

(vii) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

(viii) Catch/garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly desilted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression measures and green belt development. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.

(ix) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap shall be installed and maintained fully functional with effluents discharge adhering to the norms. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste.

(x) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.

(d) Illumination, noise & vibration

(i) Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in underground mining operations, operation of HEMM, etc. shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.

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(ii) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(iii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.

(iv) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(e) Occupational health & safety

(i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.

(ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the workers engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.

(iii) Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

(iv) Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.

(v) Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.

(vi) Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/ R&R Policy of the State Government, as applicable.

(vii) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(f) Ecosystem and biodiversity conservation

(i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

SK

(ii) Greenbelt, consisting of three-tier plantation, of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt comprising of a mix of native species shall be developed all along the major approach roads/ coal transportation roads.

(g) Public hearing, R&R and CSR

(i) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

(ii) The project proponent shall ensure the expenditure towards socio-economic development in and around the mine, in every financial year as per the Corporate Social Responsibility Policy as per the provisions under Section 135 of the Companies Act, 2013.

(iii) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.11 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(iv) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(h) Corporate environment responsibility

(i) The Company shall have a well laid down environment policy duly approved by Board of Directors. The environment policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions. Also, the company shall have a defined system of reporting of non-compliances/violations of environmental norms to the Board of Directors and/or shareholders/stakeholders.

(ii) The project proponent shall comply with the provisions contained in this Ministry's OM dated 1st May, 2018, as applicable, regarding Corporate Environment Responsibility.

(iii) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions should be displayed on website of the Company.

(iv) A separate environmental management cell both at the project and company headquarter level, with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

(v) Action plan for implementing EMP and environmental conditions shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

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(vi) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

(i) Statutory Obligations

(i) The environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law from time to time, and as applicable to the project.

(ii) This environmental clearance shall be subject to obtaining wildlife clearance, if applicable, from the Standing Committee of National Board for Wildlife.

(iii) The project proponent shall obtain Consent to Establish/Operate under the Air Act, 1981 and the Water Act, 1974 from the concerned State Pollution Control Board.

(iv) The project proponent shall obtain the necessary permission from the Central Ground Water Authority (CGWA).

(j) Monitoring of project

(i) Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.

(ii) The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.

(iii) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.

(iv) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

(v) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to Ministry of Environment, Forest and Climate Change/Regional Office.

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(vi) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

(vii) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental conditions to the Ministry of Environment, Forest and Climate Change/Regional Office. For half yearly monitoring reports, the data should be monitored for the period of April to September and October to March of the financial years.

(viii) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(k) Miscellaneous

(i) Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

(ii) The project authorities shall inform to the Regional Office regarding commencement of mining operations.

(iii) A copy of the environmental clearance shall be marked to concerned Panchayat. A copy of the same shall also be sent to the concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's Office/Tehsildar Office for information in public domain within 30 days.

(iv) The EC shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain.

(v) The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of this clearance, informing that the project has been accorded environmental clearance and a copy of the same is available with the State Pollution Control Board and also at website of the Ministry.

(vi) The environmental statement for each financial year ending 31 March in Form-V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the Company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail. Concerns raised during public hearing.

(vii) The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter.

5. The proponent shall abide by all the commitments and recommendations made in the EIA/EEMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.

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6. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

7. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

8. The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of 'Common Cause Vs Union of India & others.

9. The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of the judgment of Hon'ble Supreme Court.

10. This environmental clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.

11. This issues in supersession of the earlier EC granted vide letter No.J-11015/72/2004-IA.II (M) dated 28th July, 2005.

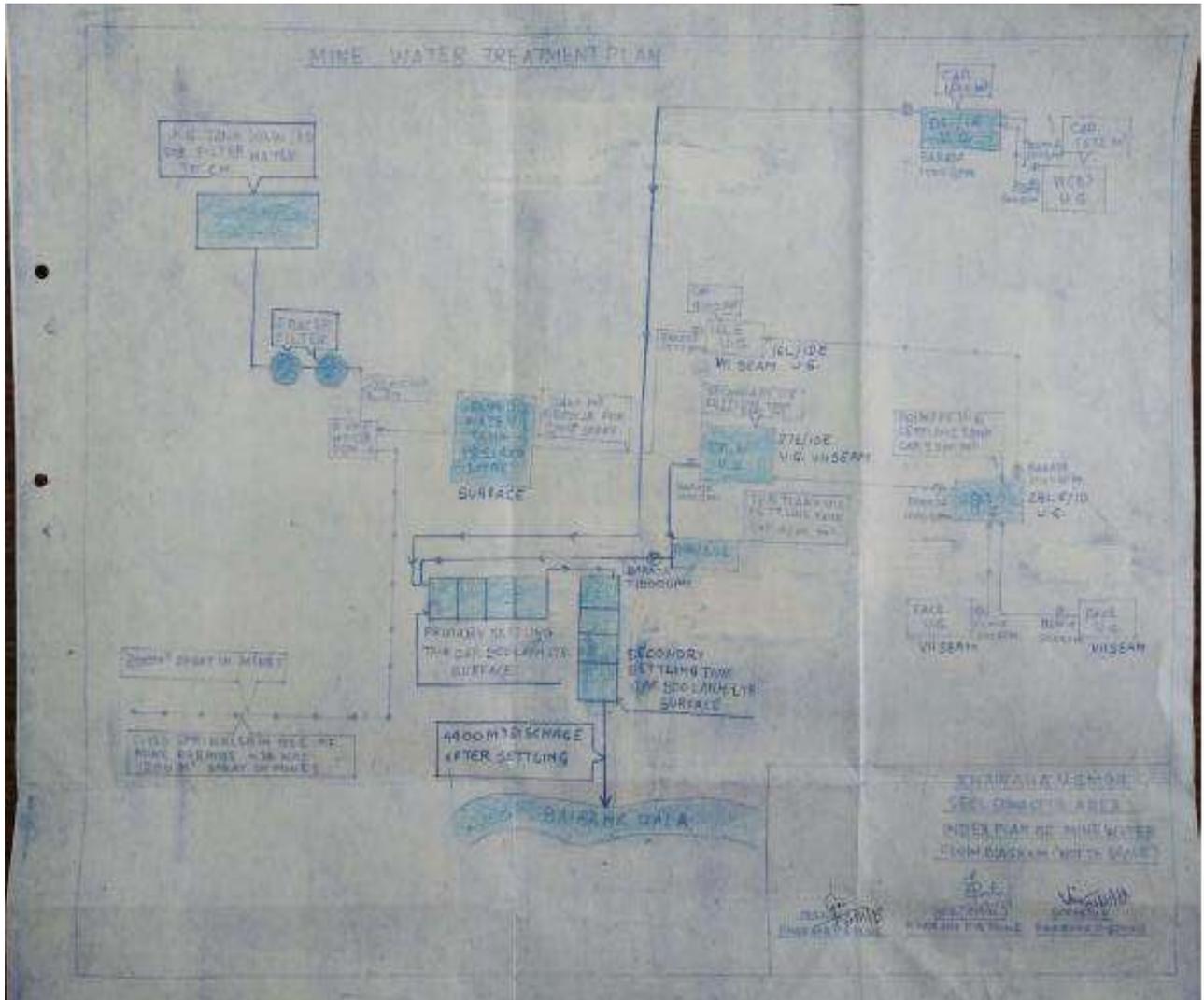

11/11/2019
(S. K. Srivastava)
Scientist E

Copy to:

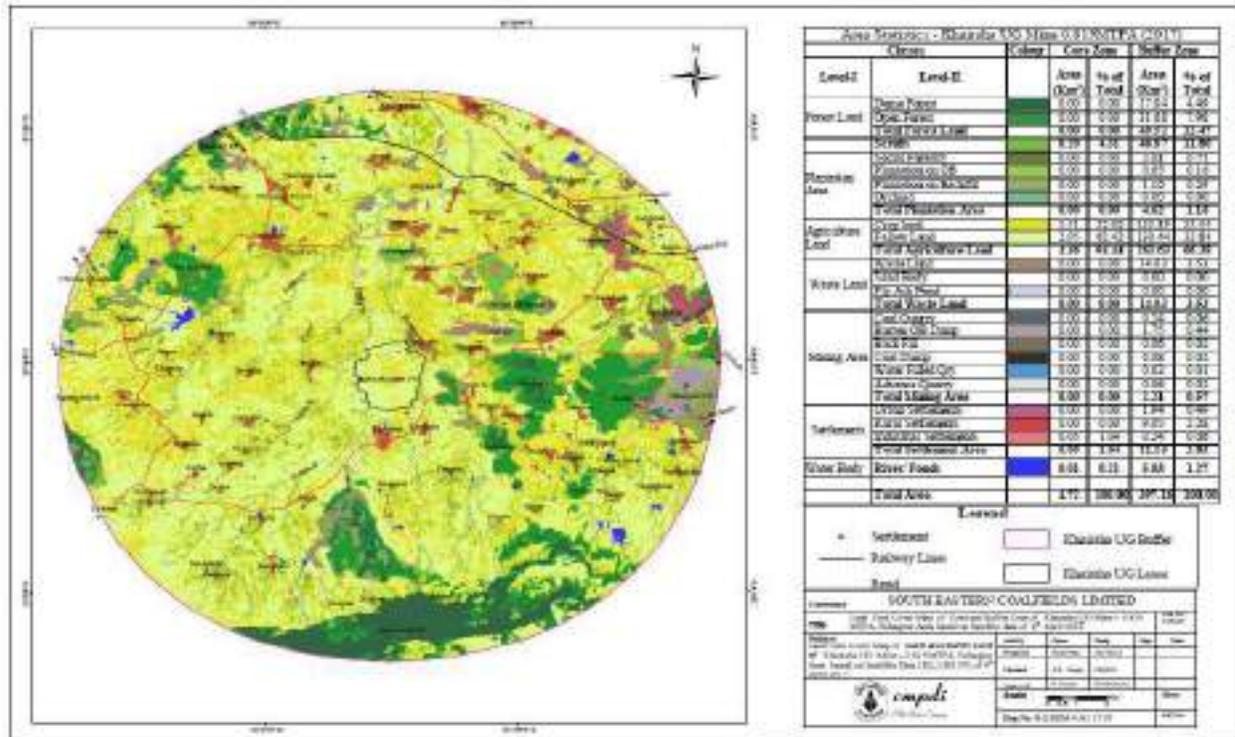
1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The APCCF, MOEF&CC, Regional Office (EZ), E-5 Arera Colony, Bhopal - 462 016
3. The Secretary, Department of Environment & Forests, Government of Madhya Pradesh, Secretariat, Bhopal
4. The Member Secretary, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462 016
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
6. The Member Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
7. The District Collector, Shahdol, Government of Madhya Pradesh
8. Monitoring File 9. Guard File 10. Record File 11. Notice Board


11/11/2019
(S. K. Srivastava)
Scientist E

Index Plan of Mine Water Flow Diagram



Land use/cover mapping of Khairaha UG mine based on satellite data of the Year 2017



**Land use/cover mapping of Khairaha UG of
SECL based on satellite data of the Year 2017**



Copy of office order for constituting team for subsidence monitoring and reporting

Letter for subsidence monitoring team

[Under jurisdiction of Bilaspur High Court only]

SOUTH EASTERN COALFIELDS LIMITED
साउथ ईस्टर्न कोलफिल्ड्स लिमिटेड
Regd. Office Seepat Road, P.B. No.60
Bilaspur -495006 (CG)
Gram-CIC COAL, Telex- 0273-208 SECL in



Office of the Dy.GM (M)/Sub Area Manager
Rajendra Sub Area, Sohagpur Area
P.O. - Rajendra Nagar Colony Via Burhar
Distt. - Shahdol (MP), PIN-484110

"A MINI RATNA COMPANY"

Ref No. - SECL/SGP/Dy.GM(M)/RSA/2019/ 243

Date : 10/10/2019

Office Order

A committee of following persons is constituted for regular monitoring of subsidence within the mine lease-hold area / mine boundary of Khairaha UG Mine.

- (1) Colliery Manager, Khairaha UG Mine
- (2) Safety Officer, Khairaha UG Mine
- (3) Surveyor, Khairaha UG Mine.
- (4) Sub-ordinate Engineer (Civil), Khairaha Sub Area

The committee is advised to submit/record the report regularly.

Dy. GM (M)/Sub Area Manager
Rajendra Sub Area

Copy to:

- All committee members
- Office file.

Copy of Letter of Award of work order issued to the Director, Tropical Forest Research Institute, Jabalpur for wildlife conservation plan

SOUTH EASTERN COALFIELDS LIMITED (A Mini Ratna Company) POST BOX NO. 60 Regd. Office: Seepat Road, Bilaspur Dist - Bilaspur (CG) 495006 Website: www.secl.gov.in CIN : U10102CT1985GOI003161		OFFICE OF THE GENERAL MANAGER: SOHAGPUR AREA, P.O. Dhanpuri – 484 114, Dist.: Shahdol (M.P.) Phone: (07652) 250302, Fax: (07652) 250882 Email- envt.sgp1950@gmail.com GSTIN: 23AADCS2066E1ZR
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No: SECL/SGP/ENV/ /18/ -77 Work order Date: 13.12.2018

To,
 The Director
 Tropical Forest Research Institute
 (An Autonomous Council under Ministry of
 Environment & Forest) Govt. of India
 P.O. – RFRIC, Mandla Road, Jabalpur (MP) – 482021

Subject: Award of work for "Study of Flora & Fauna and preparation of Wildlife Conservation Plan including endangered species if any and comprehensive study of the impact of mining on the wildlife for Rajendra UG and Damini UG mine of Sohagpur Area, SECL.

Reference: Your offer/proposal vide letter no. TFR/FER/WCP/SOHG/2017/1954 dated 14.12.2017

Dear Sir,

In response to the above-mentioned offer/estimate, this is to communicate to you that the approval of competent Authority obtained to award the subject work to TFR, Jabalpur (A Regional Institute of Indian Council of Forestry Research and Education, Dehradun) for an amount of Rs. 32.01 Lakhs (Excluding 18% GST) and subsequently the proposal has been financially concurred vide FC No. FC/SGP/AREA/C/FL/18-19/09 dated 16.08.2018 and BC No. BC/SGP/AREA/C/FL/18-19/23 dated 16.08.2018 for Rs. 32.01 lakhs.

In view of the above the aforesaid work is being awarded to TFR, Jabalpur for an amount of Rs. 32.01 Lakhs (Excluding 18% GST) on the terms and conditions as indicated below for the following objectives and scope of work:

Objectives

objectives of the plan are to:

- Assess the flora (tress, under store and ground flora) and fauna (mammals and birds) within 10 km buffer of the proposed underground mine in order to take stock of the forest, plant species and habitat conditions for wildlife.
- Predict the probable impacts caused due to the operation of these mines and
- Suggest measures to mitigate the anticipated impacts

SCOPE OF WORK

Scope of the study is to assess the possible impacts due to underground coal mining on the plant communities, wildlife (especially mammals and birds) and wetlands within 10 km buffer area of the following mine:

S. No.	Name of Mines	Mine lease area (in ha.)
1	Damini UG	344.00
2	Rajendra UG	596.00

Various aspects of the studies to be covered the following: -

Flora-Vegetation Status -

- Characterization of forest types (as per Champion and Seth classification) in the study area.
- Inventory of plant communities including trees and ground flora.
- Phyto-sociology of plant communities with respect to dominance, density, frequency, abundance, diversity index, importance value index (IVI) of the study area based on sampling through Quadrat methods.
- Listing out economically important species like medicinal plants, timber, fuel wood, fodder, etc.
- Details of endemic and endangered/Schedule-I species found in the project area.
- Flora under RET categories as per IUCN and Botanical Survey of India's Red Data list.
- Determining the distance and existence of areas of high conservation priority such as National park, Sanctuary, Biosphere Reserve etc. in the study area.

Terrestrial Fauna -

- Conducting occupancy surveys for mammals by walking line transects.
- Documenting the "presence-absence" of important wildlife through existing secondary information.
- Status of avifauna and assessing their threat.
- Documentation of important pollinators (butterflies and bees) found in the area.
- Endemic and Endangered/Schedule-I species found/recorded from the study area.
- RET species as per different schedule of Indian Wildlife (Protection) Act, 1972 and IUCN Red Data list.
- Determining the existence of habitat and corridors for important wildlife.

Aquatic life (Flora and fauna) -

1. Assessing the water quality for macro and micro elements including heavy metals from natural drainage/streams/water bodies through Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES)
2. Documenting the aquatic plants and associated wildlife (eg. water birds) in the study area.
3. Record of fish species found in the water bodies/streams under the study area from primary and secondary sources.

Preparation of maps using GIS and Remote Sensing: -

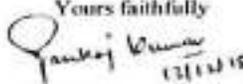
1. Maps will be prepared using MapSource and iGIS Version 2.0
2. Land Use Land Cover (LULC) data will be purchased from National Remote Sensing Centre (NRSC), Hyderabad for the study area and it will be used to give inputs on the land use pattern.
3. Maps for Forest Density and Vegetation Types will be prepared for ascertaining the different forest types and its density.
4. Map for biological richness of the forest area within 10 km buffer will be prepared.
5. Location of villages within 10 km buffer will be mapped.
6. Streams/Channel/Natural drainage within the study area and its 10 km buffer will be mapped.
7. Distance of the proposed project site to the nearest area of high conservation priority such as National Park, Tiger Reserves, Biosphere Reserves and Wildlife Sanctuaries will be noted in the map.
8. LULC (Land Use Land Cover) map for the study area will be prepared to determine the various land use patterns such as forest land, agriculture area, built-up spaces or villages etc.

Methodology

Standard and established methods will be used for studying biotic (different life forms) and abiotic systems.

TERMS AND CONDITIONS

1. Total value of work is Rs. 32.01 Lakhs (Thirty-two lakhs ten hundred only) excluding 18% GST.
2. The date of commencement of work shall be reckoned from 10th day from date of issue of work order.
3. The period of completion of study will be 08 (eight) months from date of commencement of work and draft report will be submitted within one month of completion of project and final report after incorporation of suggestion on the draft report.
4. Payment schedule will be as follows-
 - a) 50% Payment – As an advance payment on acceptance of work order only on receipt of pre-receipted bill from TFRI Jabalpur.
 - b) 40 % Payment – After Submission of Draft Report
 - c) Balance 10% Payment – On submission of 05 copies of Final Report and its acceptance.
5. The bill will be submitted mine wise separately for Rajendra UG and Damini UG.
6. The reports shall be submitted in 5 (Five) copies along with soft copy to the General Manager, Sohagpur Area SECL.
7. The proposal has been financially concurred vide FC No. FC/SGP/AREA/C/FL/18-19/09 dated 16.08.2018 and BC No. BC/SGP/AREA/C/FL/18-19/23 dated 16.08.2018 for Rs.32.01 Lakhs and the paying authority will be Area Finance Manager, Sohagpur Area SECL.
8. Registered GSTIN is 23AAAAI1708G129 for the legal name of business- Indian Council of Forestry Research and Education under Centre Jurisdiction- Group-C Jabalpur
9. 18% GST is applicable for the aforesaid study & ITC is available to SECL in this account.
10. TDS as per GST Law and Income Tax law will be deducted as per prevailing law
11. The SECL will facilitate & provide logistic support (boarding, lodging & local transport) to the study team, as and when required.
12. Bill should be submitted in prescribed format as per GST Act.
13. Penalty may be imposed as per company rule in the case of delay in the project completion.
14. The Sub-Area Manager, ABD Sub-Area (Mob-9425533411) and Sub-Area Manager, Rajendra Sub-Area (9425533410) is the controlling officer for the work in respect of Damini UG and Rajendra UG Mine, respectively.

Yours faithfully

13/12/19
Nodal Officer (Envst)
Sohagpur Area

Copy to: -

1. GM (Forest), SECL Bilaspur
2. GM (Envst), SECL Bilaspur
3. GM, Sohagpur Area
4. AFM, Sohagpur Area
5. Sub-Area Manager, ABD Sub-Area, Sub-Area Manager, Rajendra Sub-Area
6. Office copy



'Under Jurisdiction of Bilaspur Court only'
साउथ ईस्टर्न कोलफील्ड्स लिमिटेड

South Eastern Coalfields Limited

(A Mini-Ratna PSU) (CIN: U10002CT1985CO000161)

पब्लिक लिमिटेड कंपनी (सं. 1495006)

Regd. Office: Seepur Road, Bilaspur-495 006 (C.G.)

Office of the General Manager (Civil)/HoD.

सन्दर्भ: GM(C)/SECL/BSP/WO/SGP/2022/169

दिनांक: 09.04.2022

To,
M/s. DEV CONSTRUCTIONS,
Village and Post Kothi,
Distt-Satna, MP - 484001

By Speed Post/
e-mail

Contact No. : 09425394456
Contact Name : Satish Garg
e-Mail : satish.garg70@yahoo.co.in

PAN : AAGFD1444D

GST : 23AAGFD1444D222

Subject : Letter of Award (LOA)/Work Order (WO) for the work, "Re-carpeting of PWD Road from Saraikapa village to Khairaha Village (Length of PWD Road from Saraikapa Village to Rajendra Colony Tiraha : 7.00 KM with 7.00 Metres width and from Rajendra Colony Tiraha to Khairaha Village : 3.50 KM with 3.75 Metre width) including 5 (Five) years comprehensive maintenance."

Reference : 1. NIT No. : GM(C)/SECL/BSP/e-T/SGP/2021 /264 dtd. 31.12.2021
2. Tender ID : 2021_SECL_228504_1
3. Bid ID : 771079

Dear Sir,

With reference to above, this is to communicate the approval of the Competent Authority for award of the subject work to you for an amount of Rs. 3,49,72,660.80 (including GST) (Rupees Three Crore Forty Nine Lakh Seventy Two Thousand Six Hundred Sixty and Paise Eighty Only), with following break-up on Item Rate Basis:

a)	Quoted Amount as per BOQ Summary Details (excluding GST)	Rs.	3,12,25,590.00
b)	Goods & Services Tax @12% to be Paid by Bidder	Rs.	37,47,070.80
c)	Total Award Value	Rs.	3,49,72,660.80
(Rupees Three Crore Forty Nine Lakh Seventy Two Thousand Six Hundred Sixty and Paise Eighty Only)			

The work is awarded to you, subject to the following terms and conditions:

1. PERFORMANCE SECURITY DEPOSIT (PSD)

(a) Earnest Money Deposit (EMD): Not applicable as per Cl. No. 3 of NIT.

You have to deposit a sum of Rs.17,48,634.00 (Rupees Seventeen Lakh Forty Eight Thousand Six Hundred Thirty Four) only against balance amount of PSD to make the total Performance Security Deposit (PSD) as 5% (Three Percent) of the contract value within 21 (Twenty-One) days of issuance of LOA, as per Clause No.4 (Security Deposit) of Conditions of Contract of General Terms & Conditions of Contract.

(b) Additional Performance Security Deposit: Not applicable as per Cl. No. 4.8 of GTC.

(c) Performance Security Deposit (PSD) as mentioned at (a) above may be deposited in any of the form given below:

- Demand Draft drawn in favour of South Eastern Coalfields Limited on any Scheduled Bank payable at its Branch at Bilaspur (C.G.).

- Govt. Securities or FDR duly pledged in favour of South Eastern Coalfields Limited.
- Bank Guarantee, (if applicable) in SFMS (Structured Financial Messaging System) mode from any Scheduled Bank in the prescribed format as given at Annexure-V of bid document. The BG issued from outstation Bank should be operative at its local Branch at Bilaspur (C.G.) or at their branch at Kolkata (if the issuing bank does not have any branch at Bilaspur)
- The Bank Guarantee (BG) issued by the issuing Bank on behalf of contractor in favour of "South Eastern Coalfields Limited" shall be in paper form as well as issued under "Structured Financial Messaging System (SFMS)". The details of Beneficiary Bank for issue of BG under SFMS Platform have been mentioned under Cl. No.4 of General Terms & Conditions of Bid Document. Performance Security Deposit (PSD) submitted in the form of BG shall be valid for a period of one year or 90 days beyond the period of Contract/extended Contract period (if any), whichever is more.

Failure to comply with the requirement as above shall constitute sufficient ground for cancellation of the award of work and penal actions as per terms and conditions of NIT.

- (d) That all Running on Account bills shall be paid at 95 % (Ninety-Five percent) of the executed work value. The balance 5 % (Five Percent) shall be treated as Retention Money and will be second part of Security Deposit.

2. GOODS & SERVICE TAX :

- (i) The payment of Goods and Service Tax (GST) & GST (Compensation to State) Cess to the concerned Government authority will be the responsibility of the contractor.
- (ii) The payment of GST and GST (Compensation to State) Cess by service availed (i.e. SECL) to contractor would be made only on the later submitting a Bill/invoice in accordance with the provision of relevant GST Act and the rules made there-under and after online filing of valid return on GST portal.
- (iii) Input Tax Credit is **NOT AVAILABLE** to SECL.
- (iv) In the event of recovery of any claim towards LD Charges, Penalty, fee, fine or any other charges from the contractor, the same will be recovered along with the applicable GST and the amount shall be adjusted with the payment to be made to the contractor against their bill/invoice or any other dues.

3. SCHEDULED PERIOD OF COMPLETION:

That the work should be completed within a period of 2005 Days [180 days for Construction work + 1825 days for Maintenance of Road as Defect Liability Period] from the date of commencement which shall be reckoned on the expiry of 10 (ten) days from the issue of Letter of Acceptance of Tender or 7(seven) days after handing over the site of work or handing over reasonable number of working drawings to the contractor or the period of mobilization allowed in the work order for starting the work in special circumstances, whichever is later.

4. PRICE VARIATION CLAUSE:

Price Variation Clause [Cl.No.2] of Additional Terms and Conditions of Contract is **APPLICABLE** for the work. The base date for escalation is 18.01.2022 i.e. end date of submission of bid.

5. ELECTRICITY:

You will arrange necessary electricity at your own cost for the work and your own establishment. However, if available and feasible the company may arrange electricity at one point near the work site and necessary recovery of cost of energy consumed will be made at rates prescribed by the company from time to time. Energy meter for this purpose shall be provided by you.

6. WATER:

You will arrange necessary water for the work and your own establishment and nothing extra will be paid for the same. Such water used by you shall be fit for construction purposes. However, if available and feasible the company may arrange water, on your written request, to

the extent possible, at one point near the work site for which recovery @ 1% (One Percent) of the contract value of work done will be made from your bills. You will make your own arrangement of water connection and laying of pipe lines from main source of supply. Department do not guarantee to maintain uninterrupted supply of water. No claim of damage or refund of water charges will be entertained on account of such break down.

7. EMPLOYMENT OF LABOUR :

- (a) That you have to make payment to the labours engaged by you for this work as per Minimum Wages fixed by Central/State Govt.(higher) as per Minimum Wages R&A Act,1970 or minimum wages recommended by High Power Committee of CIL (for labours engaged in mining activities), as applicable.
- (b) The payment to the contractor's labourers has to be made through Bank only and necessary payment certificate shall be obtained from the authorized representative of the department.
- (c) That the payment of Provident Fund for the workmen employed by you for the work as per the Laws prevailing under provision of CMPF/EPF and allied scheme valid from time to time shall be your responsibility. You will also submit statutory returns.
- (d) That you have to comply with statutory requirements of various acts including Child Labour (Prohibition & Regulation) Act, 1986 as amended from time to time and all rules, regulations and schemes framed there under from time to time in addition to other applicable labour laws. If it is reported and proved that child labour is engaged by you, then you will be penalized 10% of the contract value and will be blacklisted.
- (e) That you have to follow other guidelines as incorporated at Clause No.13 of General Terms & Conditions of NIT covered under Additional Responsibilities of the Contractor(s).
- (f) The contractor shall directly pay the ex-gratia amount of Rs. 15.00 (Fifteen) lakhs to the same dependent family members of the deceased contractor's worker, who died in mine accident as certified by DGMS, to whom the statutory benefits under Employee Compensation Act, Provident Fund etc. have been paid, as per the terms of contract or through Insurance Company by availing Group Personal Accident Insurance Policy for all its workers before commencement of the contract, which shall be renewed periodically to cover the entire duration of the contract. No reimbursement shall be made on this account by CIL/SECL.

In order to comply with the above provisions, contractor shall immediately on receipt of letter of acceptance/work order shall obtain group personal accident insurance in respect of all the workmen engaged in mining activities for payment of Rs. 15.00 (Fifteen) lakhs in case of death in mine accident. A proof to such effect shall be produced to the satisfaction of the management before commencement of the work. However, the responsibility of payment of special relief/ex-gratia amount shall lie exclusively with the Contractor.

If the contractor fails to disburse the special Relief/Ex-gratia within the due date, the subsidiary concerned may make payment to the eligible dependent as mentioned herein above. However, such amount shall be recovered from the Contractor from his dues either in the same and/or other subsidiaries of CIL."

- (g) **Coal Mines Pension (Amendment) Scheme, 2018-** In case the contractor submits CMPF Registration document, the following shall be followed;
 - (A) In consideration of changes in statutory provisions, CMPF (Coal Mine Provident Fund) Contribution is to be deducted @12% (Twelve Percent) as both Employer & Employee Share. Hence, Employers (SECL in present case) share of CMPF Contribution @12% (Twelve Percent) has been loaded as input in minimum wage while formulating the proposal/estimate. Hence, you shall pay the employer's share i.e. 12% (Twelve Percent) towards CMPF contribution to the labours who have been engaged in the work. No reimbursement shall be made to you on this account.
 - (B) In consideration of changes in statutory provisions, CMPS (Coal Mine Pension Scheme) Contribution is to be deducted @7% (Seven Percent) as both Employer & Employee Share. Hence, Employers (SECL in present case) share of CMPS Contribution @7% (Seven Percent)

has been loaded as input in minimum wage while formulating the proposal/estimate. Hence, you shall pay the employer's share i.e. 7% (Seven Percent) towards CMPS contribution to the labours who have been engaged in the work. No reimbursement shall be made to you on this account.

- (h) Bonus is to be paid to the contract workers engaged by the Contractor as per the provisions of Payment of Bonus Act, 1965.
- (i) The contractors shall register themselves on the Contract Labour Payment Management Portal (CLPMP) of CIL within 30 days of issue of work order and will have to enter and update periodically the following details in the portal :
- (i). Work Order details
(ii). Contractor workers details and Wages payment details in respect of each Work Order.

8. ABNORMALLY LOW RATE (ALR) AND ABNORMALLY HIGH RATE (AHR) ITEMS:

8.1 As per Clause no. 17 of 'Instructions to Bidder' of Tender document, AHR and ALR items are to be identified comparing the Quoted rates with the Justified Rates.

8.2 Accordingly, quoted item-rates of L-1 bidder, have been compared with the corresponding Updated Estimated Rate / Justified Rate to identify AHR/ALR items. Details of ALR/AHR items in this tender are as under:

ALR Items : 07 (Seven) : Item No. 1.00, 2.00, 3.00, 4.00, 7.00, 8.00 and 9.00
AHR Item : Nil

9. INSURANCE POLICIES:

That you have to take necessary insurance for the full contract period for (i). Workmen Compensation & (ii). Contractors All Risk (CAR) Policy, in the joint name of South Eastern Coalfields Limited and the Contractor as per Clause No.13 (xviii) of General Terms & Conditions of NIT. The Policies and certificates for insurance shall be delivered by you to the Engineer-in-Charge for his approval before commencement of the work.

10. SAFETY PROVISIONS:

That the Precautions shall be exercised at all times by you for the protection of persons (including employees) and property. The safety required or recommended by all applicable laws, codes, statutes and regulations shall be observed by you. In case of accident, you will be responsible for compliance with all the requirements imposed by the Workmen's Compensation Act or any other similar laws enforce and indemnify the Company against any claim on this account.

11. WORKER'S WELFARE CESS :

That an Amount of 1% (One Percent) of the work value payable to you will be deducted from all Bills towards the worker's welfare under "The Building and Other Construction Worker's Welfare Cess Act, 1996" and "The Building and Other Construction Worker's Welfare Cess Rules, 1998" (as applicable in the State).

12. TERMS AND CONDITIONS:

That all other terms and conditions as given in the tender document shall also be binding on you.

13. LEGAL JURISDICTION:

That matters relating to any dispute or differences arising out of this work order and subsequent contract agreement entered, based on this tender and work order shall be subject to the jurisdiction of District Court, Bilaspur (CG) only.

14. BAR CHART / PERT-CPM TECHNIQUES:

That as per Clause No.6 under General Terms & Conditions of Contract, you have to submit a detailed time and progress chart prepared based on Bar Chart / PERT-CPM techniques on the

basis of construction schedule in consultation with the Engineer-in-Charge showing the order in which the work is proposed to be carried out within the time specified in the LOA/Work Order.

15. ENGINEER-IN-CHARGE:

That as per Clause No.1 (vii) of General Terms & Conditions of Contract, the Engineer-in-Charge for this work will be In-charge, Staff Officer (Civil), Sohagpur Area, SECL.

16. PAYING AUTHORITY:

That the Paying Authority for this work will be the Area Finance Manager, Sohagpur Area, SECL.

17. DOCUMENTS FOR EXECUTION & SIGNING OF THE AGREEMENT:

That you have to submit the following documents and to attend this office for signing the agreement within 21 (Twenty-One) days of issue of this LOA/Work Order:

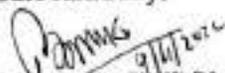
- i. An amount of Rs.17,48,634.00 (Rupees Seventeen Lakh Forty Eight Thousand Six Hundred Thirty Four) towards balance Performance Security Deposit (PSD) [as per Cl. No.1 (a) of LOA].
- ii. Non Judicial Stamp Paper of Rs.100.00 (One Hundred)
- iii. Site handover and takeover certificate, jointly signed by Engineer-in-Charge and the Contractor
- iv. Labour License as per Contract Labour (Regulation & Abolition) Act, 1970.
- v. Insurance Certificates as per Clause No.13 (xviii) of General Terms & Conditions of NIT.
- vi. CMPF/ EPF Registration certificate
- vii. Detail Time and Progress Chart, jointly signed by Engineer-in-Charge and the Contractor
- viii. List of Technical & Supervisory Personnel to be deployed for execution of the work.
- ix. Mandate Form for Electronic Fund Transfer (EFT)

18. Time Bound Completion of the work along with Quality Assurance to be ensured strictly. All statutory payments including Minimum Wages and Provident Fund (PF) to be ensured as per rule / regulations.

The date of uploading of this LOA/Work Order on e-Procurement Portal (<https://coalindiatenders.nic.in>) shall be treated as the date of receipt of this LOA / Work Order by you.

For further instructions, please contact In-charge, Staff Officer (Civil), Sohagpur Area, SECL.

Yours faithfully,


General Manager (Civil)/HoD

Copy to:

1. TS to CMD, SECL
2. TS to D(T)/P&P, SECL
3. G.M.(E&M)/Vigilance/Technical Secretary to CVO, SECL
4. G.M. (P&P)/HoD, SECL, Bilaspur
5. G.M. (Civil), SECL, Bilaspur (Sri R. K. Shrivastava)
6. G.M. (F)/HoD, SECL Bilaspur: With Ref. to

(1) FC No. as per estimate: FC/SGP/R/ 21-22/ 44 dtd. 11.11.2021

(2) BC No.: TCR BC/22-23/REV-11B/OCW/61/05 Dt. 09.04.2022 Rs. 3,49,72,661/-

7. General Manager (F)/HoD, SECL : Input Tax Credit (ITC) is NOT AVAILABLE to SECL for this work.
8. Staff Officer (Civil), Sohagpur Area, SECL : For strict adherence of stipulations mentioned in letter vide ref. no. SECL/BSP/GM(C)/2019/H-316 dtd. 01.07.2019 issued in context with submission



Six Monthly Environmental Clearance Compliance

of

KHAIRAHA UNDERGROUND COAL MINE

South Eastern Coalfields Limited

Sohagpur Area, Dhanpuri

(October 2021 – March 2022)

Address of the Industry

South Eastern Coalfields Limited

(A Mini Ratna Company)

Dhanpuri S.O Post, Sohagpur, Shahdol District,
Madhya Pradesh- 484114, India

Introduction of the Project:

Khairaha Underground Mine is located in Khairaha Geological Block, covering a block area of about 7.2 Sq. km. It is about 18 Km Southwest of Burhar town in the Western part of Sohagpur coalfield, in Shahdol district of Madhya Pradesh.

Previously the mine was granted with Environmental Clearance vide order no J-11015/72/2004-IA-II (M) dated 28.07.2005 for a production capacity of 0.585 MTPA, then in the year 2020 the EC capacity was expanded 0.819 MTPA vide order no. J-11015/72/2004-IA-II (M) dated 11.01.2019. The mine area is 472.065 Ha and the production during the FY 2021-22 was 0.819 Million Te. The mine is being worked out with Continuous Miner Machine with Bord and Pillar Technology.

Compliance of the Stipulated conditions of Environmental Clearance

Khairaha Underground Project, SECL Sohagpur Area
(J-11015/72/2004-IA-II(M) dated-11.01.2019)
Production capacity: 0.819 MTPA
Mining area: 472.065 MTP

Specific Conditions

SN	Condition	Compliance status
1.	The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.	Complied, One season data has already been collected for the period April'2019 to June'19 and already been submitted.
2.	The project proponent shall obtain Consent to establish from the State Pollution Control Board for capacity of 0.819 MTPA prior to commencement of the increased production.	Complied, CTE had granted vide CTE no. 49416, Validity: 30/11/2019. (Enclosed as Annexure 1)
3.	Transportation of coal from face to coal heap shall be carried out by belt conveyor. Further, the coal transportation from coal heap to Coal Handling Plant shall be carried out through covered trucks.	Being complied, Coal transportation from UG to Surface is being done by covered conveyor belt fitted with water sprinkler and further transportation from mine to railway siding and for road sales is being done through tarpaulin covered trucks only. (Enclosed as Annexure 2)
4.	Mitigating measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.	Being complied, Sufficient nos. of water sprinklers have been installed at coal stock yard (14 No fixed sprinkler) and one mobile tanker of 5 KL capacity is provided for dust suppression at road in a regular manner. <u>Apart from this one exclusive truck mounted mist fog machine is being procured for Rajendra and Khairaha UG Mine for water sprinkling at coal transportation road.</u> <u>A proposal for construction of 12 feet high wind breaking wall along the coal stock yard is also under process and will be finalized soon.</u> (Enclosed as Annexure-3)
5.	Sufficient coal pillars shall be left un-extracted around the air shaft (within the subsidence influence area) to protect from any damage from subsidence, if any.	Being complied, Three inclines have been pushed from centre of the property to reach the coal seams; out of which incline 1 and 2 are air intake drifts whereas incline number 3 is air return drift. All these drifts shall remain during depillaring stage. These will be provided with sufficient pillars to safeguard the structure as per the DGMS norms and also as per pillar designing done by CMPDI for stability. The condition will be complied during de-pillaring stage.
6.	Solid barrier shall be left below the roads falling within the block to avoid any damage to the roads	Being complied, At present the mine is in development stage, so, there is no chance at all

	and no depillaring operation shall be carried out below the township/colony.	for subsidence during development. During depillaring sufficient barrier coal pillars left unextracted under and around Road and Township / Colony (as per provisions CMR 2017) to protect from any damage from subsidence.
7.	Depression due to subsidence resulting in water accumulating within the low-lying areas shall be filled up or drained out by cutting drains.	Being compiled, At present the mine is in development stage, so, there is no chance at all for subsidence during development. During depillaring (in 2023-24), depression due to subsidence will filled and accumulated water will be drained out by cutting drains. Moreover, for protection of In rush of water in mine, the garland drain along mine entry of proper dimension is being maintained, and along the mine boundary, garland drain will be maintained during depillaring.
8.	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings should be continued till movement cases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clay soil/suitable materials.	A committee of four officials involving Colliery Manager, Khairaha UG mine, Safety Officer Khairaha UG mine, Surveyor Khairaha UG mine and Sub-ordinate Engineer (Civil) Khairaha Sub Area has been constituted by the Dy. GM(M)/ Sub Area Manager, Rajendra Sub Area <i>vide</i> its office order dated 10-10-2019 for monitoring and reporting of subsidence within the mine lease- hold area/ mine boundary of Khairaha UG.
9.	Garland Surface drains (Size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rain fall and maximum discharge in the area adjoining the mine sites. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.	The mine sump water is drained through the pucca RCC catch/garland drains and passed through the Settling Tanks and the clean water is then treated in the newly established mine water filter plant of 15000 GPH capacity. After treatment the treated water is then supplied to nearby khannath village for domestic use. Sump capacity has designed and allowed proper settling of silt and sediment materials and provided adequate number of pumps to pump out the UG mine sump water to the surface area through surface settling tanks, the clean water is partly used for mining operations, dust suppression, plantation activities, washings, etc. a part of the total amount is supplied to khannath village and rest of the water is discharged to the sarfanalla from where the mine water gets stored in sarda dam for further distribution to Shahdol Town. A total of 5 underground mine sumps exist in the UG with sufficient capacity.
10.	Sufficient number of pumps of adequate capacity	4 pump with peak capacity up to 10,500 KLD

	shall be deployed to pump out mine water during peak rain fall.	are provided, which are sufficient for pumping out of inrush of rainwater in mine.
11.	The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 0.819 MTPA.	Complied, the mine has been granted with the No Objection Certificate from the CGWA. (Enclosed as Annexure 4)
12.	Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured	Regularly Medical check-up of mine employees is being done. Training camps are also organized for vocational training of contractual and regular workers. Personal protective equipment are being distributed
13.	A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRE /NEERI/IIT or any other expert agency identified by the Ministry.	Complied, The assessment of EC compliance has been conducted by ICFRE, Dehradun during 30.10.2019 to 05.11.2019.

4.1 Generic condition (A) Mining

S. N	CONDITION	COMPLIANCE STATUS
1.	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there- under as applicable.	Being Complied: Mine is running as per applicable provisions of Mines Act 1952 & subordinate legislations.
2.	No change in mining method i.e. UG to OC, calendar Programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).	Agreed: This mine is working with underground method, there are no any change in mining method and scope of work. In case of any change, the prior approval will be taken from MoEFCC.
3.	Mining shall be carried out as per the approved mining plan (including mine closure plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General of Mines Safety (DGMS).	Being Complied: Mine working is being done as per approved mine plan (including mine closure plan) and implemented all circulars as per mining laws and issued by DGMS.
4.	Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.	Environmental conditions in the underground are ergonomic and air breathable with adequate illumination. Ventilation survey, illumination survey, noise survey, gas analysis of underground workings are carried out as per statue and records maintained by Safety Officer as per procedures. All report complied as per DGMS norms.

5.	No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled tribes and other Traditional Forest Dwellers (Recognition of forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.	Being complied: No mining activity shall be carried out in forest land without taking prior Forest Clearance.
6.	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.	Two nos. of solar light at mine office block are under installation. Further plan is underway to install 04 more such light in different places in mine site in future.

(B) Land Reclamation and Water Conservation –

S. N	CONDITION	COMPLIANCE STATUS
1.	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50000 scale or as notified by Ministry of Environment, Forest and Climate Change (MoEFCC) from time to time shall be submitted to MoEFCC/ Regional Office (RO).	Being Complied: Digital Processing of lease area using remote sensing technique is being done.
2.	Post-mining land be rendered usable for agriculture/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for preparation of Mine Closure Plan, issued by the Ministry of coal dated 27 th August 2009 and subsequent amendments.	Agreed, The condition will be complied as per guidelines.
3.	Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.	At present the mine is in development stage, No subsidence has been occurred. Though a committee of four officials involving Colliery Manager, Khairaha UG mine, Safety Officer Khairaha UG mine, Surveyor Khairaha UG mine and Sub-ordinate Engineer (Civil) Khairaha Sub Area has been constituted by the Dy. GM(M)/ Sub Area Manager, Rajendra Sub Area for monitoring and reporting of subsidence within the mine lease- hold area/ mine boundary of Khairaha UG.

4.	Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3 rd November 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.	Not applicable, Since it is an underground coal mine, there is no scope of fly ash filling because depillaring is proposed by Caving. There is no external Dump in the ML area.
5.	A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.	A committee of four officials involving Colliery Manager, Khairaha UG mine, Safety Officer Khairaha UG mine, Surveyor Khairaha UG mine and Sub-ordinate Engineer (Civil) Khairaha Sub Area has been constituted by the Dy. GM(M)/ Sub Area Manager, Rajendra Sub Area for monitoring and reporting of subsidence within the mine lease- hold area/ mine boundary of Khairaha UG
6.	Through inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.	No such cracks or subsidence has been developed in the mining area as the mine is in the developmental stage, however to safeguard the mine from inrush of water, a team has been constituted, which takes necessary action to prevent inrush of water.
7	Native tree species shall be selected and planted over areas affected by subsidence.	No subsidence has been occurred till date, though 5000 nos. of plants including native species have been planted in mine premises and 14000 no of plants have been planted along the coal transportation route. During depillaring or during subsidence the mine management will take necessary action for developing dense plantation in the subsidence area and for complying EC condition imposed by the MoEFCC according to the EIA-EMP and Project report of the mine

8	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State Government to provide alternate areas for Hon'ble Supreme Court with regard to acquiring grazing land.	Complied: No grazing land involved in core zone of Khairaha UG Mine
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(C) Emissions, Effluents, and waste disposal-

S. N	CONDITION	COMPLIANCE STATUS
1.	Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc. shall be carried out in critical areas prone to air pollution (with higher values of PM ₁₀ /PM _{2.5}) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.	Coal transportation from UG to Surface is being done by covered conveyor belt provided with mist sprinkling arrangement and further transportation from mine to railway siding and through road sales is being done through optimally loaded tarpaulin covered trucks only. -Fixed sprinkler are operational along coal stock yard and entrance of the mine. -1 No. of mobile water tanker is used for dust suppression at coal transportation road - The railway siding is barricaded with brick wall and green canopy and fix water sprinklers are installed in the siding premise. -Regular monitoring of ambient air quality is being done by CMPDIL and by MPPCB, shahdol, in mine and in the railway siding and the values are well within prescribed norms.
2.	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area in a phased manner. The green belt comprising a mix of native species shall be developed all along the major approach/coal transportation roads.	Greenbelt has been developed all around the bunker, coal stock yard and mine office premises through the M. P. Rajya Van Vikas Nigam, Umari during the year 2011 by planting of 5000 nos. of both native and exotic tree species. 14000 no of plants have been planted along the coal transportation route for minimization of air borne dust. A proposal for heightening of existing wall/wind breaking wall is also under process and will be completed soon

3.	The transportation of coal shall be carried out as per the provisions and route proposed in the approved Mining Plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.	Transportation through bypass road is being carried out through covered trucks. No any population/village inhabit there. Regular maintenance of the coal transportation road is also being done to minimise dust generation.
4.	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centers.	Being complied: -PUC certified vehicles are only deployed for coal transportation. -Coal transportation is being done through optimally loaded covered trucks only.
5.	Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.	-UG to surface transport through Belt conveyor. Coal stock yard and railway siding is equipped with water sprinklers. -Railway siding is covered with brick boundary wall and green canopy. -Side cladding gantry along conveyor is provided to avoid air born dust. -Mobile water sprinkler is deployed on road transport. -Underground drifts were found free of any coal dust. -Drilling is not practiced in this mine and no crusher is installed in this mine.
6.	Coal handling plant shall be operated with effective control measures viz. bag filters/water or mist sprinkling system etc to check fugitive emissions from crushing operations, conveyor system, transfer points etc.	At Khairaha UG the mining is being done with continuous miner with feeder breaker to size 100mm to oversized coal. The continuous miner works with mist spray system to minimize dust emission. No CHP is there at the mine. For controlling dust emission from conveyor system, belt is completely covered and provided with mist sprinkler system.
7.	Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.	No ground water is used for mining operation. The seepage through underground workings is pumped into the settling tanks. In underground as well as surface the water after settlement of dust and coal is again used for sprinkling and in underground operations.

8.	<p>Catch/garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps &</p> <p>-OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. -The drains/ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly.</p> <p>-Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilized for dust suppression measures and green belt development.</p> <p>-Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.</p>	<p>- Catch/garland drains and siltation pond of appropriate size are constructed around the mine working and coal heaps.</p> <p>- This is a UG mine, therefore the conditions of OB is not applicable for this mine.</p> <p>- Catch/garland drains and siltation pond of appropriate size are constructed around the mine working and coal heaps and regular maintenance and desilting is being done.</p> <p>- Sump capacity with adequate capacity is provide (underground capacity- 20400 cum/day, peak sudden rainfall water generation - 540 Cum).</p> <p>- Mine is underground, this condition is not applicable.</p>
09	<p>Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap shall be installed and maintained fully functional with effluents discharge adhering to the norms. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste.</p>	<p>The mine sump water is drained through the puccaRCC catch/garland drains and passed through the Settling Tanks and the clean water is then treated in the newly established mine water filter plant of 15000 GPH capacity. After treatment the treated water is then supplied to nearby khannath village for domestic use.</p> <p>Sump capacity has designed and allowed proper settling of silt and sediment materials and provided adequate number of pumps to pump out the UG mine sump water to the surface area through surface settling tanks, the clean water is partly used for mining operations, dust suppression, plantation activities, washings, etc. . The remaining water is being supplied to khannath village after treatment in newly constructed filter plant.</p>

10	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	<p>A ground water recharge structure has been created at mines office of Khairaha project with a total surface area of 125sq.m for collection of rain water. The collected rain water is passed through a recharge pit and was found in working condition.</p> <p>The mine sump water is drained through the pucca RCC catch/garland drains and passed through the Settling Tanks and the clean water is then treated in the newly established mine water filter plant of 15000 GPH capacity. After treatment the treated water is then supplied to nearby khannath village for domestic use, rest of the water after industrial use is discharged to the sarfanalla from where the mine water gets stored in sarda dam for further distribution to Shahdol Town. (Enclosed as Annexure 5)</p>
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(D) ILLUMINATION, NOISE & VIBRATION-

S. N	CONDITION	COMPLIANCE STATUS
1.	Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in underground mining operations, operation of HEMM, etc. shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.	<p>Continuous miner is deployed with feeder breakers in underground mining, which do not produce noise upto 85 dB(A) in work environment. However, The worker engaged in UG mining operations are equipped with PPE like safety google, Dust mask and Earmuff/earplugs in conformity with the prescribed norms in this regard. During IME/PME each worker is subjected for audiometric test. No such cases of NIHL are reported.</p> <p>Regular monitor of noise level is being done and value is within threshold limit.</p>
2.	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in the regard shall be submitted to the Ministry/RO on six- monthly basis.	<p>Noise level monitoring done at various vulnerable points and reported noise levels less than 85 dB(A). However, workers have been provided sufficient protecting measures such as ear plugs, muffs in conformity with the prescribed norms in this regard. (Enclosed As Annexure 6)</p>

3.	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.	No blasting is required, Continuous miner is coal cutting technology.
4.	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in the regard shall be submitted to the Ministry/RO on six- monthly basis.	Being complied

(E) Occupational health & safety-

S. N	CONDITION	COMPLIANCE STATUS
1.	Adequate illumination shall be ensured in all mine locations (as per DGMS standards and monitored).	Arrangement for adequate illumination in mine locations as per DGMS standards are made and its monitoring is also being done.
2.	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the workers engaged in the project and maintain records accordingly as per the provisions of the Mine Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20 % of the workers identified form workforce engaged in the active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.	Health survey for workers by conducting IME/PME as per the provisions of Mines Rule 1955 and DGMS circulars is being done. 20% workers from the workforce are subjected to health check up for occupational disease and NIHL. No case of Pneumoconiosis and NIHL has been reported yet.
3.	Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.	Arrangement for adequate illumination in mine locations as per DGMS standards are made and its monitoring is also being done.
4.	Skill training as per safety norms specified by DGMS shall be provided to all workman including the outsourcing employees to ensure high safety standards in mines.	Regular training of the workforce is being done on day to day basis.
5.	Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.	02 no. water filter installed for supply of drinking water. The mine water is also being treated and supplied to nearby villages for domestic purpose.

6.	<p>Implementation of Action Plan on the issues raised during the public hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan Submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/or the national R&R Policy/R&R Policy of the State Government, as applicable.</p>	<p>Being complied</p> <p>Various issues raised during public hearing are being complied. These include monitory provisions towards various measures for containment of air/dust pollution like provision of mobile water tanker, plantations and necessary arrangement for education, health, and road construction. These also include regular monitoring of air and water quality through agencies like CMPDIL and M. P. Pollution Control Board. Altogether, an expenditure of about 5 crores has been made towards the said measures. Land compensation to the 27 private land owners from nearby Chirihiti and Khairaha villages amounting to a total of Rs.2175250/ have been made for their 11.432 ha of private land by 31.07.2010. This land has been used for establishment of infrastructures like office premises and approach road to the mine. Apart from land compensation, 05 PAFs belonging to the Khairaha village have also been provided employment as per the R&R Policy of the CIL.</p>
7.	<p>The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA.II(M) dated 29th October, 2014, titled impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area.</p>	<p>Arrangement for adequate illumination in mine locations as per DGMS standards are made and its monitoring is also being done.</p> <p>Health survey for workers by conducting IME/PME as per the provisions of Mines Rule 1955 and DGMS circulars are being done. 20% workers from the workforce are subjected to health checkup for occupational disease and NIHL. No case of Pneumoconiosis and NIHL has been reported yet.</p> <p>Personnel (including outsourcing employees) working in dusty areas are equipped with protective respiratory devices like dust mask and sufficient training provided in Vocational training centre (VTC), Sohagpur area.</p> <p>Regular training is being provided to Workman including the outsourcing employees in VTC, Sohagpur area as per safety norms of DGMS.</p>

(F) ECOSYSTEM AND BIODIVERSITY CONSERVATION-

S. N	CONDITION	COMPLIANCE STATUS
1.	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any spotted/reported in the study area. The Action plan in this regard, if any shall be prepared and implemented in consultation with the State Forest and Wildlife Department.	Not applicable, no forest land falling under mining lease area.
2.	Greenbelt consisting of three tier plantation of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt comprising of a mix of native species shall be developed all along the major approach roads/coal transportation roads.	Being complied: Green belt consisting mixed native species of plants is developed at mine premises by planting 5000 nos. by MPRVVN. The green belt around the mine boundary will be develop during Depillaing.

(G) PUBLIC HEARING, R&R AND CSR-

S. N	CONDITION	COMPLIANCE STATUS
1.	Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.	Being complied: All Issue raised during public hearing is address and suitable action has been taken. 467.458 Ha. Land have been acquired under Section 9(i) of CBA(A&D) 1957 and compensation will be paid to land oustees as per CILR&R Policy.
2.	The project proponent shall ensure the expenditure towards socio-economic development in and around the mine, in every financial year as per the corporate social responsibility policy as per the provision under section 135 of the Companies Act, 2013.	Being complied: As per CSR policy of company the work related to CSR is being done in nearby villages of project. One Mine water filter plant is established in the mine premise from which water is being supplied to nearby villagers. Other CSR Activities are also being done at Area level for the betterment of socio-economic conditions or surrounding area.

3.	The project proponent shall follow the mitigation measures provided in the Ministry's OM No. Z-11013/5712014-IA.II (M) dated 29 th October, 2014 titled 'Impact of mining activities on habitation issues related to the mining projects wherein habitations and villages are the part of mines lease areas or habitations and villages are surrounded by the mine lease area'.	Being Complied. All mitigative measures are being taken for minimising impact of mining activity on habitation.
4.	The project proponent shall make necessary arrangements, if grazing land is involved in core zone, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the direction of Hon'ble Supreme Court with regard to acquiring grazing land.	Not applicable: There are no any grazing land involved in core zone under the project.

(H) CORPORATE ENVIRONMENT RESPONSIBILITIES-

S. N	CONDITION	COMPLIANCE STATUS
1.	The company shall have a well laid down environment policy duly approved by Board of Director. The environment policy should prescribe for standard operation procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environment of forest norms/conditions. Also, the company shall have a define system of reporting of non-compliances/violations of environmental norms to all Board of Director and/or shareholders/stakeholders.	Complied: Company have well laid down board approved corporate Environment policy. (Enclosed as Annexure-7)
2.	The project proponent shall comply with the provisions contained in the Ministry's OM dated 1 st May, 2018, as applicable, regarding Corporate Environment Responsibility.	Being complied: The activities under CER like dinking water supply to villager, rain water harvesting etc. is being done.
3.	The hierarchical system or Administrative Order of the company to deal with environment issues and for ensuring compliance with the environment clearance conditions shall be displayed on website of the Company.	Complied: Company level EC condition compliance monitoring team is constituted.

4.	A separate environment management cell both at the project and company headquarter level, with suitable qualified shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Complied: Separate environment management cell with suitable qualified person have established and functioning at project and company level.
5.	Action plan for implementing EMP and environment conditions shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Officer along with the Six Monthly Compliance Report.	Being complied: A separate fund for Environmental Activities and implementation of EMP of the mine is approved. And this fund is not being diverted for any other purpose. Yearly progress report is being submitted to the MoEFCC regional office through 6 monthly compliance report.
6.	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Being complied: Self environmental audit is being done by Six monthly EC compliance and field visit, The assessment of EC compliance has been conducted by ICFRE, Dehradun during 30.10.2019 to 05.11.2019.

(I) STATUTORY OBLIGATIONS-

S. N	CONDITION	COMPLIANCE STATUS
1.	The environmental clearance shall be subject to order of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law from time to time, and as applicable to the project.	Agreed.
2.	The environmental clearance shall be subject to obtaining wildlife clearance, if applicable, from the Standing Committee of National Boards for Wildlife.	Not Applicable: only tenancy and govt. land involve covered under the project area and no any RF, wildlife sanctuary, wildlife corridor fall with radius of 15 KM.
3.	The project proponent shall obtain Consent to Establish/Operate under the Air Act, 1981 and the Water Act, 1974 from the concerned State Pollution Control Board.	Complied, CTE granted as per No. 49416, Dated-30.01.2019 (Enclosed as Annexure-8)

4.	The project proponent shall obtain the necessary permission from the Central Ground Water Authority (CGWA).	Being complied: Applied for NOC vide application no. 21-4/720/MP/MIN/2018 dated 25.12.18 and application is under scrutiny at CGWA, Bhopal.
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(J) MONITORING OF PROJECT-

SN	CONDITION	COMPLIANCE STATUS
1.	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM ₁₀ , PM _{2.5} , SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive target in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.	Being complied: -Air quality monitoring is being done on following stations -In core zone; Main gate, Khairaha project Lamp room, Khairaha project Electrical substation, Khairaha project Manager Office, Khairaha project -In Buffer zone (Ambient air quality monitoring stations): Khairaha Village Kundri village Chirahti village Khanath village One CAAQMS station is also installed at Bangwar Colony near Khairaha ug mine.
2.	Ambient air quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742(E) dated 25-09-2000 and as emended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/ Regional Officer and to the CPCB/SPCB.	Being complied: Monitoring of Ambient air quality in core zone is being carried out as per Coal Industry Standards notified vide GSR 742(E) dated 25-09-2000 and as emended from time to time by the Central Pollution Control Board. Monitoring data regularly submitted to MoEFCC and MPPCB with Environmental audit report. (Enclosed as Annexure-9)

3.	The effluent discharge (mine waste water, workshop effluent) shall be mentioned in terms of the parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25-09-2000 and as amended from time to time by the Central Pollution Control Board.	Being complied: -Quality of Mine water is being monitored as per parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25-09-2000 and as amended from time to time by the Central Pollution Control Board. -Workshop effluent: There is no any type of discharge from workshop. (Enclosed as Annexure-9)
4.	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall be referred in this regards for its compliance.	Being Complied: Monthly monitoring data is being displayed at project office.
5.	Regular monitoring of underground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and construction new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to Ministry of Environment, Forest and Climate Change/Regional Office.	Being Complied: The water level monitoring is being done by series of existing well and piezometers Monitoring of 04 parameter of effluent water is being carried out every month and 24 parameters monitoring is done twice in a year. Drinking water monitoring is also being done every month. The final Monitoring Reports are being submitted to MoEFCC with the 6 monthly compliance.
6.	Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.	Being complied.

7.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environment conditions to the Ministry of Environment, Forest and Climate Change/Regional Office. For half yearly monitoring reports, the data should be monitored for the period of April to September and October to March of the financial year.	Being complied
8.	The Regional Officer of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/ monitoring reports.	Agreed

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(K) MISCELLANEOUS-

S. N	CONDITION	COMPLIANCE STATUS
K 1.	Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.	Being Complied: All efforts like use of latest and efficient machine, regular maintenance of machinery etc. are being taken for activities like coal production, loading unloading, transportation and for other activities
K 2.	The project authorities shall inform to the Regional Office regarding commencement of mining operations.	complied
K 3.	A copy of the environmental clearance shall be marked to concerned Panchayat. A copy of the same shall also be sent to the concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's Office/ Tehsildar office for information in public domain within 30 days.	Complied
K 4.	The EC shall be uploading on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain.	Complied

K 5.	The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of this clearance, informing that the project has been accorded environmental clearance and a copy of the same is available with the State Pollution Control Board and also at website of the Ministry.	Complied
K 6.	The environmental statement for each financial year ending 31 march in Form-V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail. Concerns raised during public hearing.	Being Complied
K 7.	The above condition will be enforced inter-alia, under the provisions of the Water (prevention & Control of Pollution Act, 1974 the Air (Prevention & Control of Pollution) Act, 1981 the environment(Protection) Act, 1986 and the public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter.	Agreed
5.	The proponent shall abide by all commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.	Agreed
6.	The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may	Agreed

	stipulate any further condition for environmental protection.	
7.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Agreed
8.	The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Government at any point of time, in terms of the orders dated 2 nd august, 2017 of Hon'ble Supreme Court in WP (Civil) No. 114/2014 in the matter of Common Cause Vs Union of India & others.	Agreed, No any illegal mining is being done under the Khiaraha Project.
9.	The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & geology, in Strict compliance of the judgment of Hon'ble Supreme Court	Agreed, No any illegal mining is being done under the Khiaraha Project.
10.	This environment clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.	Agreed

Index of the Annexures

S. N.	Annexure No.	Details
1.	Annexure 1	Consent To Establish Of Khairaha UG Mine
2	Annexure 2	Covered Belt Conveyor And Covered Coal Transport
3	Annexure 3	Fix Water Sprinklers And Plantation Around Mine Premise
4	Annexure 4	Central Ground Water Authority (CGWA) NOC
5	Annexure 5	Rain Water Harvesting Structure, Mine Water Filter Plant And Pucca Drain Around Mine Premise
6	Annexure 6	Noise Survey Report
7	Annexure 7	Coal India Corporate Environmental Policy
8	Annexure 8	Environmental Monitoring Report of Khairaha UG Mine
9	Annexure 9	Latest Consent to Operate of Khairaha UG

Annexure 1

Consent to Establish of Khairaha Underground Mine



Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742

RED-LARGE	CTE-Expansion	VALID UP TO: 30/11/2019	CONSENT NO: ***	PCB ID: 20070
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To,

M/s. Khairaha Under Ground Mine
South Eastern Coalfields Ltd,
Plot No:126, PO: Khairaha,
Tal : Sohagpur, Distt : Shahdol, (M.P.)- 484110

Subject: Grant of Consent to Establish-Expansion under section 25 of the Water (Prevention & Control of Pollution) Act, 1974 & under section 21 of the Air (Prevention & Control of Pollution) Act,1981

Ref: Your Consent to Establish-Expansion Application Receipt No. 756025 Dt. 04/01/2019 and last communication received on Dt. 10/01/2019

Without prejudice to the powers of this Board under section 25 of the Water (Prevention & Control of Pollution) Act,1974 under section 21 of the Air (Prevention & Control of Pollution) Act,1981 and without reducing your responsibilities under the said Acts in any way, this is to inform you that this Board grants Consent to Establish for setting up of an industrial plant/activities at **Plot No:126, PO: Khairaha, Tal : Sohagpur, Distt : Shahdol, (M.P.)- 484110**

SUBJECT TO THE FOLLOWING CONDITIONS :-

a. Location: Plot No:126, PO: Khairaha, Tal : Sohagpur, Distt : Shahdol, (M.P.)- 484110

b. Mining lease Area: 472.065 Hact

c. Product & Production Capacity:

Product	CCA Qty / year	Applied CTE Ex- Qty / year	CTE Ex- Qty / year
Mining of Coal	585000.0 M.T	819000.0 M.T	819000.0 M.T

The Consent (for Establish- Expansion) as required shall be granted to your industry after fulfillment of all the conditions mentioned above. For this purpose you shall have to make an application to this Board in the prescribed proforma **atleast two months before the expected date of commissioning of your industry**. The applicant shall not operate the unit without obtaining consent for operation from the Board and shall not bring in to use any out let for the discharge of effluent and gaseous emission.

Enclosures:-

- * Conditions under Water Act
- * Conditions under Air Act
- * General conditions



e-Signed On 30/01/2019 12:34:11
(Organic Authentication on AADHAR from UIDAI Server)
TPAV # VSE8118JOE

ACHYUT ANAND MISHRA
Member Secretary

Consent No:CTE-49416,Validity:30/11/2019, Outward No:87974,30/01/2019



Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742

CONDITIONS PERTAINING TO WATER (PREVENTION & CONTROL OF POLLUTION) ACT 1974 :-

1. The daily quantity of trade effluent at out fall of the unit shall not exceed **4400.0 KL/day**, and the daily quantity of sewage at out fall of the unit shall not exceed **10.0 KL/day**.

2. Trade Effluent Treatment:-

The applicant shall provide comprehensive effluent treatment system as per the proposal submitted to the Board and maintain the same properly to achieve following standards-

pH	Between	5.5 – 9.0	TDS	Not exceed	2100 mg/l.
Suspended Solids	Not exceed	100 mg/l.	Chlorides	Not exceed	1000 mg/l.
BOD 3 Days 270C	Not exceed	30 mg/l.			
COD	Not exceed	250 mg/l.			
Oil and grease	Not exceed	10 mg/l.			

For other parameters general standards of discharge as notified under EP Act 1986 and standards notified by MPPCB from time to time shall be applicable.

3. Sewage Treatment :- The applicant shall provide comprehensive sewage treatment system as per the proposal submitted to the Board and maintain the same properly to achieve following standards-

pH	Between	6.5 – 9.0
Suspended Solids	Not exceed	100 mg/l.
BOD 3 Days 27 ⁰ C	Not exceed	30 mg/l.
COD	Not exceed	250 mg/l.
Oil and grease	Not exceed	10 mg/l.
Fecal Coliform	Not exceed	1000 (MPN/100ml)

4. The mine water discharge shall be treated up to prescribed Standards in series of settling tanks and shall be reused in the process, for dust suppression, for green belt devolvement/gardening and water supply within the premises. The treated mine water discharge if done in Sarfa nala and Sarfa dam, shall conform to the CPCB prescribed river water quality criteria and shall not be polluted or harmful for the riparian users. The industry shall be responsible for maintaining the quality of mine water discharge and shall also be liable for any damage (s) being caused to environment, human & animal life and agriculture.

5. Water meter preferably electromagnetic/ultrasonic type with digital flow recording facilities shall be installed separately for category wise consumption of water for Industrial cooling/boiler feed, mine spray, process & domestic purposes and data shall be submitted online through XGN monthly patrak/statements. The industry/unit shall also monitor the treated wastewater flow and report the same online through monthly patrak/statements.

6. Any change in production capacity, process, raw material used etc. and for any enhancement of the above prior permission of the Board shall be obtained. All authorized discharges shall be consistent with terms and conditions of this consent. Facility expansions, production increases or process modifications which result new or increased discharges of pollutants must be reported by submission of a fresh consent application for prior permission of the Board

7. All treatment/control facilities/systems installed or used by the applicant shall be regularly maintained in good working order and operate effectively/efficiently to achieve compliance of the terms and conditions of this consent

8. The specific effluent limitations and pollution control systems applicable to the discharge permitted herein are set forth as above conditions.

9. Compilation of Monitoring-

i. Samples and measurements taken to meet the monitoring requirements specified above shall be representative of the volume and nature of monitored discharge.

ii. Following promulgation of guidelines establishing test procedures for the analysis of pollutants, all sampling and analytical methods used to meet the monitoring requirements specified above shall conform to such guidelines unless otherwise specified sampling and analytical methods shall conform to the latest edition of the Indian Standard specifications and where it is not specified the guidelines as per standard methods for the examination of Water and Waste latest edition of the American Public Health Association, New York U.S.A. shall be used.

iii. The applicant shall take samples and measurement to meet the monthly requirements specified above and report online

Consent No:CTE-49416,Validity:30/11/2019, Outward No:87974,30/01/2019



through XGN the same to the Board.

10. Recording of Monitoring-

- i. The applicant shall make and maintain online records of all information resulting from monitoring activities by this Consent.
- ii. The applicant shall record for each measurement of samples taken pursuant to the requirements of this Consent as follows:
 - (i) The date, exact place and time of sampling
 - (ii) The dates on which analysis were performed
 - (iii) Who performed the analysis?
 - (iv) The analytical techniques or methods used and
 - (v) The result of all required analysis
- iii. If the applicant monitors any Pollutant more frequently as is by this Consent he shall include the results of such monitoring in the calculation and reporting of values required in the discharge monitoring reports which may be prescribed by the Board. Such increased frequency shall be indicated on the Discharge Monitoring Report Form.
- iv. The applicant shall retain for a minimum of 3 years all records of monitoring activities including all records of Calibration and maintenance of instrumentation and original strip chart regarding continuous monitoring instrumentation. The period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the applicant or when requested by Central or State Board or the court.

11. Reporting of Monitoring Results:-

Monitoring Information required by this Consent shall be summarized and reported by submitting a Discharge Monitoring report on line to the Board.

12. Limitation of discharge of oil Hazardous Substance in harmful quantities:-

The applicant shall not discharge oil or other hazardous substances in quantities defined as harmful in relevant regulations into natural water course. Nothing in this Consent shall be deemed to preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities, or penalties to which the applicant is or may be subject to clauses.

13. Limitation of visible floating solids and foam:

During the period beginning date of issuance the applicant shall not discharge floating solids or visible foam.

14. Disposal of Collected Solid-

All hazardous waste/sludge shall be disposed of as per the Authorization issued under Hazd & other waste Rules 2016. And/other Solids Sludges, dirt, silt or other pollutant separated from or resulting from treatment shall be disposed of in such a manner as to prevent any pollutant from such materials from entering any such water Any live fish, Shall fish or other animal collected or trapped as a result of intake water screening or treatment may be returned to eaters body habitat.

15. Provision for Electric Power Failure-

The applicant shall assure to the consent issuing authority that the applicant has installed or provided for an alternative electric power source sufficient to operate all facilities utilized by the applicant to maintain compliance with the terms and conditions of the Consent.

16. Prohibition of By pass system-

The diversion or by-pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this Consent is prohibited except :

- i. where unavoidable to prevent loss of life or severe property damage, or
- ii. Where excessive storm drainage or run off would damage any facilities necessary for compliance with the terms and conditions of this Consent. The applicant shall immediately notify the consent issuing authorities in writing of each such diversion or by-pass in accordance with the procedure specified above for reporting non-compliance.

17. Industry/Institute/mine management shall submit the information online through XGN in reference to compliance of consent conditions.

18. The mine management shall maintain zero discharge conditions as far as possible. The Mine management shall optimize the water abstraction from the surface water source, if any, by utilizing the mine discharge for spraying on haul roads, mine area and loading - unloading area after proper treatment. The treated mine discharge shall also be utilized for sanitary purposes by providing separate supply lines, dust suppression and for plantation in order to ensure zero discharge status as far as possible.



Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
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19. Rain water harvesting shall be undertaken to recharge ground water source and status of implementation shall be submitted to the Board. Hydro-geological study of the area shall be reviewed annually. In case any adverse effect on ground water quality and quantity is observed, mining shall be stopped and resumed only after applying mitigating steps to restore the same.

20. The mine management shall comply with the conditions stipulated in the Environmental Clearance F.No. J-11015/72/2004-IA-II (M) dated 11th January, 2019 granted by MoEF&CC .

CONDITIONS PERTAINING TO AIR (PREVENTION & CONTROL OF POLLUTION) ACT 1981 :-

1. The applicant shall provide comprehensive air pollution control system consisting of control equipments as per the proposal submitted to the Board with reference to generation of emission and same shall be operated & maintained continuously so as to achieve the level of pollutants to the following standards:-

Name of section	Capacity	Stack height (meters)	Fuel	Control equipment to be installed	SPM/RSPM (Annual Average) ($\mu\text{g}/\text{NM}^3$)
Loading-unloading, Material Handling, Haul road, Transportation, CHP etc	Fugitive Emission	0	Nil	Dust Suppressor, Green Belt, Water Sprinkler,	430 / 215

2. Ambient air quality at the boundary of the industry/unit premises shall be monitored and reported to the Board regularly on quarterly basis: The Ambient air quality norms are prescribed in MoEF gazette notification no. **GSR/826(E), dated: 16/11/09**. Some of the parameters are as follows:

- Particulate Matter (less than 10 micron) - $100 \mu\text{g}/\text{m}^3$ ($\text{PM}_{10} \mu\text{g}/\text{m}^3$ 24 hrs. basis)
- Particulate Matter (less than 2.5 micron) - $60 \mu\text{g}/\text{m}^3$ ($\text{PM}_{2.5} \mu\text{g}/\text{m}^3$ 24 hrs. basis)
- Sulphur Dioxide [SO_2] (24 hrs. Basis) - $80 \mu\text{g}/\text{m}^3$
- Nitrogen Oxides [NO_x] (24 hrs. Basis) - $80 \mu\text{g}/\text{m}^3$
- Carbon Monoxide [CO] (8 hrs. Basis) - $2000 \mu\text{g}/\text{m}^3$

3. The industry shall take adequate measures for control of noise level generated from industrial activities within the premises less than 75 dB(A) during day time and 70 dB(A) during night time.

4. Industry/Unit shall provide with each stack port hole with safe platform of 1 meter width with support & spiral ladder/ Stepped ladder with hand rail up to monitoring platform as per specifications given in part-III emission regulation of CPCB. In no case monkey ladder shall be allowed as stack monitoring facility.

5. The industry/unit shall make the necessary arrangements for control of the fugitive emission from any source of emission/section/activities.

6. All other fugitive emission sources such as leakages, seepages, spillages etc shall be ensured to be plugged or sealed or made airtight to avoid the public nuisance.

7. The industry/ unit shall ensure all necessary arrangements for control of odour nuisance from the industrial activities or process within premises

8. All the internal roads shall be made pucca to control the fugitive emissions of particulate matter generated due to transportation and internal movements. Good housekeeping practices shall be adopted to avoid leakages, seepages, spillages etc.

9. Industry shall take effective steps for extensive tree plantation of the local tree species within or around the industry/unit premises for general improvement of environmental conditions and as stated in additional condition

10. Mine management shall setup an online or manual coal ash monitoring system for raw, or blended or beneficiated coal supplied to thermal power plants as per the MoEFCC OM dated 26/08/2015 and submit the report to MPPCB.

11. Mine management shall install CAAQMS stations at suitable locations to monitor ambient air quality in the leased area and its vicinity and shall provide its suitable unhindered connectivity with Environment Surveillance Centre of the MPPCB and transmit the data within 3 months time.

12. Coal handling plant and coal loading and unloading in railway wagons / trucks should be provided with adequate number of high efficiency dust extraction / suppression system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated. Dust

Consent No:CTE-49416, Validity:30/11/2019, Outward No:87974,30/01/2019



Consent Order

**M.P. Pollution Control Board
E-5, Arera Colony
Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742**

control measures shall be adopted at coal transfer point of the high wall mining machine as per the need.

13. Mine management shall provide continues water sprinkler systems / rain gun at suitable locations on the road side and also provide proper pollution control arrangements to control the fugitive emission generates due to transportation of Coal from CHP.
14. Vehicular emissions should be kept under control and regularly monitored for compliance of emission norms. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.
15. Extensive tree plantation shall be done on both sides of Mineral transportation roads and around mining lease area. The tree plantation shall be carried out in phase manner preferably with local species. Good housekeeping practice shall be adopted by the Mine. More plantations with species like Neem, Pipal, Mango, Jamun, Kathal etc shall be planted.
16. The mine management shall comply with the conditions stipulated in the Environmental Clearance granted by MoEF&CC.
17. The mine shall take effective steps for safe and scientific reclamation of over burden steps shall be taken to keep the geological structure in the natural form by biological reclamation of mines.
18. Mine management shall take appropriate steps to maintain the eco-system of the area through environmental conservation program and the records shall be submitted to the Regional office of the Board annually.
19. Mines management shall provide progressive plantation on the over burden for stabilization of over burden and prevent the soil erosion.
20. Crushers at the CHP shall be operated with high efficiency bag filters. Mine management shall have to maintain automatic water spraying system for CHP, Coal stock yard and haul roads.
21. Mine management shall provide fencing all around the mining lease area to prevent the occurrence of accidental hazard.
22. Mine management shall have to deploy Continuous Miner for underground mining.
23. Mine shall not discharge any industrial effluent to any natural water body.
24. Mine water should be treated to such an extent that quality of water should meet suitable for beneficial uses.
25. Mine shall use all preventive measure to check Air pollution during transpiration of coal by trucks.
26. Regular wetting and sweeping of road should be practice during coal transport.
27. Mine shall utilize fly ash of thermal power plants for back filling of voids as per fly ash notification.
28. Mine management shall ensure that average ash contents in the raw or blended or beneficiated coal supplied to thermal power plants shall not exceed the limit of 34%.

Consent No:CTE-49416,Validity:30/11/2019, Outward No:87974,30/01/2019



GENERAL CONDITIONS:

MANAGEMENT & DISPOSAL OF FLY ASH

1. THE MINE MANAGEMENT SHALL ENSURE ALL THE COMPLIANCES REGARDING DISPOSAL AND UTILIZATION OF FLY ASH AS STIPULATED IN MoEF&CC NOTIFICATIONS NO. S.O. 763(E) DATED 14/9/99 AND ITS AMENDMENTS VIDE NOTIFICATION NO. S.O. 979(E) DATED 27/8/03, S.O. 2804(E) DATED 03/03/09 AND S.O. 254(E) DATED 25/1/16. SOME OF THE RELEVANT STIPULATIONS ARE AS BELOW:

A. No person or agency shall within radius of 50 kilometers (by road) from coal or lignite based thermal power plants, undertake or approve stowing of mines without using 25% of fly ash on weight to weight basis, of the total stowing materials used and this shall be done under the guidance of DGMS.

B. No agency, person or organisation shall within a radius of hundred kilometers of a coal or lignite based thermal power plant undertake or approve or allow reclamation and compaction of low lying areas with soil; only fly ash shall be used for compaction and reclamation and they shall also ensure that such reclamation and compaction is done in accordance with specifications and guidelines laid down.

C. No person or agency shall within radius of 50 kilometers (by road) from coal or lignite based thermal power plants, undertake or approve without using 25% of fly ash on volume to volume basis of the total materials used for external dumps of over burden and same percentage in upper benches of back filling of opencast mines under the guidance of DGMS.

2. The mine management shall submit an action plan for the utilization of fly ash in the mines in compliance of the fly ash utilization within one month's time and shall also provide mining plan containing the provisions for utilization of fly ash in the mine.

3. The applicant shall allow the staff of Madhya Pradesh Pollution Control Board and/or their authorized representative, upon the representation of credentials:

- a. To inspect raw material stock, manufacturing processes, reactors, premises etc to perform the functions of the Board.
- b. To enter upon the applicant's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this Consent.
- c. To have access at reasonable times to any records required to be kept under the terms and conditions of this Consent.
- d. To inspect at reasonable times any monitoring equipment or monitoring method required in this Consent: or,
- e. To sample at reasonable times any discharge or pollutants.

4. This consent/authorisation is transferable, in case of change of ownership/management and addresses of new Owner/partner/Directors/proprietor should immediately apply for the same.

5. The issuance of this Consent does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorise any invasion of personal rights, nor any infringement of Central, State or local laws or regulations.

6. Industry shall install separate electric metering arrangement for running of pollution control devices and this arrangement shall be made in such fashion that any non functioning of pollution control devices shall immediately stop electric supply to the production and shall remain tripped till such time unless the pollution control device/devices are made functional. The record of electricity consumption for running of pollution control equipment shall be maintained and submitted to the Board every month

7. This consent is granted in respect of Water pollution control Act 1974 or Air Pollution Control act, 1981 or Authorization under the provisions of Hazardous and other Waste (Management & Transboundary movement) Rules 2016 only and does not relate to any other Department/Agencies. License required from other Department/Agencies have to be obtained by the unit separately and have to comply separately as per there Act / Rules.

8. Balance consent/authorisation fee, if any shall be recoverable by the Board even at a later date.

Consent No:CTE-49416,Validity:30/11/2019, Outward No:87974,30/01/2019



Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742

9. The applicant shall submit such information, forms and fees as required by the board not later than 180 days prior to the date of expiration of this consent/authorisation
10. The industry/unit shall establish a separate environmental cell, headed by senior officer of the unit for reporting the environmental compliances. The industry/ Unit shall submit environmental statement for the previous year ending 31st March on or before 30th September every year to the Board.
11. Industry shall obtain membership of Emergency Response Center of the Board if needed.
12. Knowingly making any false statement for obtaining consent or compliance of consent conditions shall result in the imposition of criminal penalties as provided under the section 42(g) of the Water Act or section 38 (g) of the Air Act.
13. After notice and opportunity for the hearing, this consent may be modified, suspended or revoked by the Board in whole or in part during its term for cause including, but not limited to, the following :
 - (a) Violation of any terms and conditions of this Consent.
 - (b) Obtaining this Consent by misrepresentation or failure to disclose fully all relevant facts.
 - (c) A change in any condition that requires temporary or permanent reduction or elimination of the authorized discharge.
14. On violation of any of the above-mentioned conditions the consent granted will automatically be taken as canceled and necessary action will be initiated against the industry.

Consent/authorization as required under the Water (Prevention & Control of Pollution) Act, 1974, The Air (Prevention & Control of Pollution) Act, 1981 is granted to your industry subject to fulfillment of all the conditions mentioned above. For renewal purpose you shall have to make an application to this Board through XGN at least two months before the date of proposed expansion. The applicant without valid consent (for operation) of the Board shall not bring in to use any outlet for the discharge of effluent and gaseous emission.

For and on behalf of
M.P. Pollution Control Board

(Member Secretary)



e-Signed On 30/01/2019 12:34:11
(Organic Authentication on AADHAR from UIDAI Server)
TPAV # VSE8118JOE

ACHYUT ANAND MISHRA
Member Secretary

Consent No:CTE-49416,Validity:30/11/2019, Outward No:87974,30/01/2019

Annexure -2 (Covered Conveyor Belt and Covered Coal Transportation)



Belt Conveyor system



Coal Transportation Through Covered Trucks/Dumpers



Annexure 3 (Fix Sprinklers and Plantation around Mines Premise)





5000 nos of Plants Planted around Coal Stock Yard and Mine Premise



14,000 nos of Plants Planted along Coal transportation Road



Annexure 4

Central Ground Water Authority NOC of Khairaha UG Mine



(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name:	Khairaha U/g Coal Mine (capacity Expansion From 0.585 Mty To 0.819 Mty)		
Project Address:	Khairaha U/g Coal Mine, P.o. Khairaha, Via Burhar		
Village:	Khairaha	Block:	Sohagpur
District:	Shahdol	State:	Madhya Pradesh
Pin Code:			
Communication Address:	Khairaha U/g Coal Mine, P.o. Khairaha, Via Burhar, Sohagpur, Shahdol, Madhya Pradesh - 484110		
Address of CGWB Regional Office :	Central Ground Water Board North Central Region, Block-1, 4th Floor, Paryawas Bhawan, Area Hills, Jail Road, Bhopal, Madhya Pradesh - 462011		

1. NOC No.:	CGWA/NOC/MIN/ORIG/2021/13751											
2. Application No.:	21-4/720/MP/MIN/2018	3. Category: (GWRE 2020)	Safe									
4. Project Status:	Expansion Of Existing Project	5. NOC Type:	New									
6. Valid from:	16/11/2021	7. Valid up to:	15/11/2023									
8. Ground Water Abstraction Permitted:												
	Fresh Water	Saline Water	Dewatering	Total								
	m ³ /day	m ³ /year	m ³ /day	m ³ /year	m ³ /day	m ³ /year						
	21.00	7665.00			6378.00	2327970.00						
9. Details of ground water abstraction /Dewatering structures												
	Total Existing No.:1						Total Proposed No.:0					
	DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu
Abstraction Structure*	0	0	1	0	0	0	0	0	0	0	0	0
Dewatering Structure*	0	0	0	0	0	4	0	0	0	0	0	0
*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit;MPu-Mine Pumps												
10. Ground Water Abstraction/Restoration Charges paid (Rs.):							14013810.00					
11. Number of Piezometers(Observation wells) to be constructed/ monitored & Monitoring mechanism.				No. of Piezometers			Monitoring Mechanism					
							Manual	DWLR**	DWLR With Telemetry			
**DWLR - Digital Water Level Recorder				2			0	1	1			

(Compliance Conditions given overleaf)

This is an auto generated document & need not to be signed.

Validity of this NOC shall be subject to compliance of the following conditions:

Mandatory conditions:

- 1) Installation of tamper proof digital water flow meter with telemetry on all the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate.
- 2) Proponents shall mandatorily get water flow meter calibrated from an authorized agency once in a year.
- 3) Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 14 of Guidelines. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in Annexure-II of the guidelines.
- 4) Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.
- 5) In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.
- 6) In case of mining project the firm shall submit water quality report of mine discharge/ seepage from Govt. approved/ NABL accredited lab.
- 7) The firm shall report compliance of the NOC conditions online in the website (www.cgwa-noc.gov.in) within one year from the date of issue of this NOC.
- 8) Industries abstracting ground water in excess of 100 m³/d shall undertake annual water audit through certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three years through appropriate means.
- 9) Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment (Protection) Act, 1986.
- 10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of effluents or any such matter as applicable.

General conditions:

- 11) No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).
- 12) The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).
- 13) Proponents shall install roof top rain water harvesting in the premise as per the existing building bye laws in the premise.
- 14) The project proponent shall take all necessary measures to prevent contamination of ground water in the premises failing which the firm shall be responsible for any consequences arising thereupon.
- 15) In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.
- 16) Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.
- 17) Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.
- 18) Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned Regional Director, Central Ground Water Board.
- 19) In case of violation of any NOC conditions, the applicant shall be liable to pay the penalties as per Section 16 of Guidelines.
- 20) This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and administrative clearances from appropriate authorities.
- 21) The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.
- 22) In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.
- 23) This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases related to ground water or any other related matters.
- 24) Proponents, who have installed/constructed artificial recharge structures in compliance of the NOC granted to them previously and have availed rebate of upto 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, shall continue to regularly maintain artificial recharge structures.
- 25) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, pharmaceutical, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution as per Annexure III of the guidelines.
- 26) In case of new infrastructure projects having ground water abstraction of more than 20 m³/day, the firm/entity shall ensure implementation of dual water supply system in the projects.
- 27) In case of infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.
- 28) In case of coal and other base metal mining projects, the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.
- 29) The NOC issued is conditional subject to the conditions mentioned in the Public notice dated 27.01.2021 failing which penalty/EC/cancellation of NOC shall be imposed as the case may be.
- 30) This NOC is issued subject to the clearance of Expert Appraisal Committee (EAC) (if applicable).

(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)

Annexure-5

(Rainwater Harvesting Structure at Khairaha UG Mine)



Mine Waste Filter Plant And Pucca Drains around mine premise



Annexure 6

Noise Level Monitoring at Working Place of Khairaha Underground Mine

NOISE SURVEY

Date: _____
Page No: _____

- Date of survey - 05/01/21
- Name of instrument - Noise meter
- Name of supervisor - R.L. Bunke

SN	Place/Location	Noise level dBA	Remark
1.	Near Main Fan	62.42	
2.	Near Surface Bunker	71.52	
3.	Near TB-1 Belt opt. seat	70.35	
4.	Near TB-2 Belt opt. seat (Bottom)	74.24	
5.	Near v/b Bunker (TB-2 Discharge)	60.00	
6.	Near 11L Belt (TB-2 tail end)	70.29	
7.	Near 1640d Pump Top section	71.29	
8.	Near CM at Running Position	90.00	ear muff provided
9.	Suttle car start Position	66.05	
10.	Near feeder Breaker	71.03	


05/01/2021

Signature of
Supervisor




Signature of
Vols

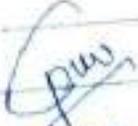
NOISE SURVEY

Date: _____
Page No: _____

- Date of Survey - 07/02/2021
- Name of instrument - Noise meter
- Name of supervisor -

S.N.	Place/Location	Noise level dBA	Remark
1	Near Main Fan	61.98	
2	Near Surface Bunker	70.59	
3	Near TB-1 Belt opt. seat	69.32	
4	Near TB-2 Belt opt. seat (Bottom)	75.38	
5	Near v/bt Bunker (TB-2 Discharge)	59.29	
6	Near 11L Belt (TB-2 tell end)	70.78	
7	Near 16L/OD Pump top Section	72.30	
8	Near c.m at Running Position 11L	91.02	
9	Suttle car start Position	66.03	
10	Near feeder Breaker	72.05	


Signature of
Supervisor


Signature of
V0/50

NOISE SURVEY

- Date of Survey - 03/03/21
- Name of instrument - Noise meter
- Name of Supervisor - R.L. Bunken

S.N.	Place / Location	Noise level dBA	Remark
1.	Near Main Fan	64.03	OK
2.	Near Surface Bunker	70.8	OK
3.	Near TB-1 Belt opt. Seat	74.6	OK
4.	Near TB-2 Belt opt. Seat (Bottom)	74.9	OK
5.	Near v/bt Bunker (TB-2 Discharge)	66.00	OK
6.	Near 11 L Belt (TB-2 tellend)	70.5	OK
7.	Near 1640D Pump top Section	76.00	OK
8.	Near cm at Running Position	-	-
9.	Suttle car Start Position	-	-
10.	Near feeder Breaker	-	-


Signature of
Supervisor


Signature of
Vofso

NOISE SURVEY

Date:

Page No:

- Date of Survey - 06/04/21
- Name of instrument - noise meter
- Name of Supervisor - P.L. Bunkar

S.N.	Place/Location	Noise level dBA	Remark
1.	Near Main Fan	62.03	OK
2.	Near Surface Bunker	68.8	OK
3.	Near TB-1 Belt opt. seat	72.6	OK
4.	Near TB-2 Belt opt. seat (Bottom)	73.9	OK
5.	Near U/M Bunker (TB-2 Discharge)	65.8	OK
6.	Near 11L Belt (TB-2 tail end)	69.05	OK
7.	Near 15L/OD Pump Top Section	75.04	OK
8.	Near cm at Running Position	-	-
9.	Suttle car start Position	-	-
10.	Near feeder Breaker	-	-

Signature of
Supervisor

Signature of
V.O/SO

NOISE SURVEY

Date: _____
Page No: _____

- Date of Survey - 12/05/21
- Name of instrument - Noise meter
- Name of Supervisor - R.L. Bunkart

S.N	Place / Location	Noise level dBA	Remark
1.	Near Main Fan	63.40	OK
2.	Near surface Bunker	70.50	OK
3.	Near TB-1 Belt opt. Seat	71.65	OK
4.	Near TB-2 Belt opt. Seat (Bottom)	75.02	OK
5.	Near u/g Bunker (TB-2 Discharge)	60.05	OK
6.	Near 11L Belt (TB-2 tell end)	70.05	OK
7.	Near 16L/OD Pump top Section	71.00	OK
8.	Near cm at Running Position	69.40	OK
9.	Suttle car Start Position	66.00	OK
10.	Near feeder Breaker	70.00	OK


Signature of
Supervisor


Signature of
Inspector

NOISE SURVEY

Page
Page No.

- Date of Survey - 10/06/2021
- Name of instrument - Noise meter
- Name of supervisor - R.L. Bunkari

SN	Place / Location	Noise level dBA	Remark
1	Near Main Fan	62.40	OK
2	Near Surface Bunker	68.49	OK
3	Near TB-1 Belt opt. Seat	70.42	OK
4	Near TB-2 Belt opt. Seat (Bottom)	72.00	OK
5	Near U/M Bunker (TB-2 Discharge)	59.48	OK
6	Near 11L Belt (TB-2 tail end)	72.06	OK
7	Near 16L/OD Pump top Section	72.38	OK
8	Near cm at Running Position	71.48	OK
9	Shuttle car Start Position	68.03	OK
10	Near feeder Breaker	71.49	OK


Signature of
Supervisor


Signature
R.L. Bunkari

NOISE SURVEY

Date: _____
Page No: _____

- Date of survey - 06/07/21
- Name of instrument - noise meter
- Name of supervisor - R.L. Bunkos

S.No	Place / Location	Noise level dBA	Remark
1	Near Main fan	62.38	OK
2	Near Surface Bunker	70.80	OK
3	Near TB-1 Belt opt. seat	74.60	OK
4	Near TB-2 Belt opt. seat (Bottom)	74.92	OK
5	Near u/w Bunker (TB-2 Discharge)	66.00	OK
6	Near 11L Belt (TB-2 tell end)	70.5	OK
7	Near 16L/OD Pump Top section	72.00	OK
8	Near cm at Running Position	88.09	ear muff provided
9	Suttle car start Position	65.09	OK 01'
10	Near feeder Breaker	71.00	OK


Signature
Supervisor

Signature
Vofso

NOISE SURVEY

Date: _____
Page No: _____

Date of Survey - 03/08/2021
Name of instrument - Noise meter.
Name of supervisor - R.L. Bunkoat

No.	Place / Location	Noise level dBA	Remark
	Near main fan	62.38	OK
	Near surface Bunker	70.80	OK
	Near TB-1 Belt opt. seat	74.60	OK
	Near TB-2 Belt opt. seat (Bottom)	76.92	OK
	Near u/01 Bunker (TB-2 Discharge)	68.00	OK
	Near 11L Belt (TB-2 tail end)	70.5	OK
	Near 16L/00 Pump Top Section	72.00	OK
	Near cm at Running Position	88.09	OK
	Shuttle car start Position	65.09	OK
	Near feeder Breaker	71.00	OK


Signature
Supervisor


Signature
10/50

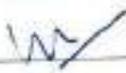
NOISE SURVEY

Date: _____
Page No: _____

- Date of survey - 05/09/2021
- Name of instrument - Noise meter
- Name of supervisor - R.L. Bunker

S.No	Place / Location	Noise level dBA	Remark
1	Near Main Fan	61.38	OK
2	Near surface Bunker	71.82	OK
3	Near TB-1 Belt opt. seat	72.59	OK
4	Near TB-2 Belt opt. Seat (Bottom)	73.68	OK
5	Near U/L Bunker (TB-2 Discharge)	65.00	OK
6	Near 11L Belt (TB-2 tel end)	73.50	OK
7	Near 16L/OD Pump top section	70.59	OK
8	Near cm at Running Position	86.07	ear muffs provided
9	Suttle car start Position	64.59	OK
10	Near feeder Breaker	70.65	OK


05/09/21
Signature
Supervisor


Signature
W.V.

NOISE SURVEY

Date: _____

Page No: _____

- Date of Survey - 01/10/2021
- Name of instrument - Noise survey meter
- Name of supervisor - R.L. Bunker

SN.	Place / Location	Noise level dBA	Remark
1	Near Main fan	60.29	OK
2	Near Surface Bunker	72.83	OK
3	Near TB-1 Belt opt. seat	71.48	OK
4	Near TB-2 Belt opt. seat (Bottom)	72.52	OK
5	Near U/vs Bunker (TB-2 Discharge)	64.25	OK
6	Near 11L Belt (TB-2 tell end)	71.48	OK
7	Near 16L/OD Pump Top section	69.32	OK
8	Near cm at Running Position	84.03	OK
9	Suttle car start Position	62.59	OK
10	Near feeder Breaker	69.62	OK


01/10/2021
Signature of
Supervisor


Signature of
No/So.

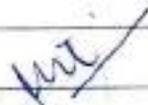
NOISE SURVEY

Date: _____
Page No: _____

- Date of Survey - 02/11/2021
- Name of instrument - Noise Survey meter.
- Name of supervisor - R.L. Burdon.

S.No.	Place/Location	Noise level dBA	Remarks
1.	Near Main fan	62.00	OK
2.	Near Surface Bunker	72.38	OK
3.	Near TB-1 Belt opt. seat	71.49	OK
4.	Near TB-2 Belt opt. seat (Bottom)	73.38	OK
5.	Near upr Bunker (TB-2 Discharge)	66.00	OK
6.	Near 11L Belt (TB-2 tell end)	72.49	OK
7.	Near 16L/OD Pump top Section	71.59	OK
8.	Near cm at Running Position	88.49	near muff provided
9.	Suttle car start Position	65.60	OK
10.	Near feeder Breaker	71.05	OK


Signature
Supervisor


Signature
V0/50

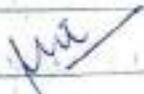
NOISE SURVEY

Date:
Page No:

- Date of survey - 02/12/21
- Name of instrument - Noise meter
- Name of Supervisor - R L Bunker

SNo	Place/Location	Noise level dBA	Remark
1.	Near Main fan	62.00	OK
2.	Near surface Bunker	71.38	OK
3.	Near TB-1 Belt opt. seat	71.49	OK
4.	Near TB-2 Belt opt. seat (Bottom)	73.38	OK
5.	Near Upr Bunker (TB-2 Discharge)	65.00	OK
6.	Near 11L Belt (TB-2 tell end)	71.49	OK
7.	Near 16L/OD Pump top section	71.59	OK
8.	Near em at Running Position	88.49	OK
9.	Sittle car start position	65.50	OK
10.	Near feeder Breaker	70.05	OK


Signature
Supervisor


Signature
R L Bunker

Annexure 7

Corporate Environmental Policy of Coal India Limited



COAL INDIA LIMITED



CORPORATE ENVIRONMENT POLICY

2018

Environmental Policy Statement:

Coal India Limited(CIL) is committed to promote sustainable development by protecting the environment through integrated project planning & design, prevention / mitigation of pollution, conservation of natural resources, restoration of ecology & biodiversity, recycling/ proper disposal of wastes, addressing climate change and inclusive growth. It also aims to bringing awareness amongst its stakeholders for continual improvement in environmental performances following best practices.

OBJECTIVES:

Coal India Limited shall endeavor to:

- 1. Plan & design projects with due consideration to environmental concerns for Sustainable Development.*
- 2. Conduct mining and associated operation in an environmentally responsible manner to comply with applicable laws and other requirements related to environmental aspects.*
- 3. Prevent pollution of surrounding habitation by continuous monitoring and adopting suitable measures for environment protection.*
- 4. Implement Environment Management Plans in all our mines /projects effectively to mitigate pollution, conservation of natural resources and restoration of ecology & biodiversity.*
- 5. Ensure compliance of all applicable Environmental Clearance & Forestry Clearance conditions and other statutory conditions issued by regulatory agencies.*
- 6. Recycling of wastes on the principle of REDUCE, REUSE and RECYCLE.*
- 7. Put special thrusts on efficient energy utilization / renewable energy as a measure to reduce carbon foot-print.*
- 8. Strive for continual improvement in our environmental performances by setting targets, measuring progress and taking corrective action.*
- 9. Taking measures to render productive post mining land use.*
- 10. Implementation of activities applicable to CIL arising out of International Conventions.*
- 11. Create environmental awareness among the employees and the local communities through pro-active communication and training.*

STRATEGIES FOR IMPLEMENTATION OF ENVIRONMENTAL POLICY:

Back Ground:

Coal India Limited subscribes to the view of Sustainable Development. Unless the environment can sustain all the developmental activities, any pursuit of development in isolation can cause irreparable damage to the ecosystem and associated environmental attributes. Keeping this view in mind, Coal India Limited attaches top priority towards sustainable development and approved its 'Corporate Environmental Policy' in December 1995, which was subsequently revised in 2012. However the present policy is the amendment of the 2012 Policy and is complimentary to the National Environmental Policy, 2006.

This modification in the present policy is the outcome of the experience gained since 2012 keeping in view the modifications / amendments made time to time in environmental policies and additional stipulation notified by MoEF&CC (Ministry of Environment, Forest& Climate Change) and other organisations concerning mine closure, reclamation of degraded land, environmental clearance etc. and also with the objective of revisiting the corporate policy.

This Policy has a vision of Green Mining and mission of 100% compliance of environmental statutes applicable to coal mining industry.

Strategies: Coal India adopts the strategies appended below for effective implementation:

1. MINE/ PROJECT PLANNING & DESIGN FOR SUSTAINABLE DEVELOPMENT:

- a) Coal being a non-renewal energy source, extraction shall be planned prudently to meet national requirement in a planned way. The projects shall be designed on the principle of Sustainable Development with due consideration to environment, mine closure ,safety and aspirations of the stakeholders at the planning& design stage itself with due regard to mine closer plan.
- b) While preparing the Mining plan/project reports, the effort shall be to incorporate latest mining technologies and equipment's with optimal capacity, which are more environment friendly.

- c) All Mining Plan/ project reports will be provided with detailed provisions for ensuring environmental compliances.

2. ENVIRONMENTAL IMPACT ASSESSMENT (EIA) & ENVIRONMENT MANAGEMENT PLAN (EMP)

- a. All mine planning and design shall be environmentally acceptable and operation shall be carried out in such a way as to facilitate the compliance of stipulated environmental standards.
- b. EIA& EMP for all projects shall be formulated as per the approved ToR (Terms of Reference) and public consultations for obtaining Environmental Clearance (EC) from MoEF&CC. Similarly, in the existing projects needing enhancement of production capacities with or without increase in land, change of technology, renewal of lease and change in land use etc. fresh EC is required to be sought as per norms. The projects shall be operated after obtaining Consent to Establish (CTE)/Consent to Operate (CTO) from State Pollution Control Boards (SPCB).
- c. Detailed Mine Closure Plans shall be prepared for all existing and new mines as per the MoC (Ministry of Coal) guidelines.

3. COMPLIANCE OF THE STATUTORY REQUIREMENTS:

The implementation of EMP and fulfillment of all other statutory requirements like conditions of EC, FC and consents to establish & operate, including timely submission of returns to statutory bodies and various agencies, are to be ensured at all levels.

4. MEASURES TO MITIGATE POLLUTION:

a) Air Pollution:

- i) Generation of dust is to be controlled at the source to the possible extent with necessary control measures during drilling, blasting, loading, unloading, CHP transfer points etc.
- ii) Deployment of eco-friendly mining technologies.
- iii) Dust generation is to be minimized along coal / waste transportation routes.
- iv) Mechanized transportation of coal to be encouraged.
- v) Green belt is to be created around the source of dust.

b) Water pollution:

- i) The mine water and other effluent shall be treated to ensure the discharge norms as per statute. The treated effluent shall be utilized to the extent possible with a view to achieve maximum water conservation.
- ii) Oil & grease from the effluent shall be removed by Oil & Grease Traps for proper disposal.

c) Noise / ground vibration:

- i) All measures to minimize noise pollution will be taken including maintenance of HEMM, equipment and provision of PPE where required.
- ii) Suitable controlled blasting techniques shall be followed to reduce ground vibration as well as noise pollution.

d) Land reclamation:

- i) Progressive and concurrent reclamation of mined out areas will be carried out as per approved EIA/EMP and Mine Closure Plan (MCP).
- ii) Slopes of external dumps are the important area to be suitably graded / terraced for effective reclamation and plantation.
- iii) Preservation of top soil is required for future use. Old as well as existing non-active dumps are to be technically and biologically reclaimed.
- iv) Monitoring of reclamation work of all opencast mines will be done through Satellite Surveillance. The outcome shall be put in the websites.

e) Mine closure plans:

Mine Closure Plan (MCP) shall be prepared for each mine. MCP are being delineated in two phases viz. progressive and final mine closure. Appropriate funds are set aside and deposited under a special Escrow fund every year as per MoC guidelines, to be utilized for proper and final mine closure.

For mines closed prior to issuance of MoC guidelines (i.e. 27th August, 2009) suitable action to be taken as per provisions of Mines Act 1952.

f) Mine fire

CIL shall endeavour to reduce occurrence of mine fire and subsidence due to mining activity. Monthly report shall be submitted to top management of the subsidiary and CIL and Quarterly to company board. Action Plan for mine fire control shall be implemented. Monitoring will be done through Satellite Surveillance/other suitable technology.

g) Monitoring:

- I. All receptors in and around the mining projects shall be monitored regularly to assess the efficacy of the pollution control / mitigation measures within stipulated standards.
- II. Effect of mining on the hydrology of the area will be monitored through measurement of water level and its quality of nearby wells and bore holes provided for this purpose. Conservation of water through rainwater harvesting shall be taken up.
- III. Area and Unit environmental cells shall have regular interaction with the people in and around the coal mines and other allied units on matters related to environment to take necessary and timely corrective actions.
- V. Environmental initiatives and monitoring through self and third party environment audit shall be conducted for generating useful data for taking corrective actions and mitigation measures as per guidelines.

h) Other measures:

- I. Special emphasis shall be given to undertake R&D related to various facets of coal mine environmental management in collaboration with Central Mine Planning and Design Institute (CMPDI) and other competent institutions.
- II. Besides ensuring statutory compliance, the CIL desires to set high standards and continual improvement.
- III. A number of mines and establishments of CIL are ISO 14001 certified and balance mines & establishments shall be ISO 14001 certified in phased manner.
- IV. CSR and R&R policies of CIL are to be incorporated for better planning and implementation of the socio-economic issues of coal mining areas.
- V. The coal mining environmental issues are complex and require multi-disciplinary approach to address the same. CIL will endeavor to enter into MoUs with expert agencies of repute to assist in environment issues and also help in capacity building of CIL executives.
- VI. CIL conduct periodical medical examination (PME) of its work force on routine basis in compliance of the requirement mining rules and regulation, additional test will be done as and when require.

5. PRESERVATION OF BIO-DIVERSITY:

- a) This will start from mine planning including technically and biologically reclamation of mined out areas in collaboration with State Forest Departments, Wild Life Divisions, NGOs etc. working in the fields of bio-diversity conservation.

- b) The selection of species for plantation shall be done in consultation with the local community to include the local species and their preferences, if any.

6. COAL BENEFICIATION / COAL WASHERIES:

- a) For beneficiation of Runoff Mines (ROM) coal, washeries are being set up in a phased manner as per requirement and statutes.
- b) Slurry Management System (SMS) in all washeries shall be organized to ensure collection of fines, gainful utilization of rejects viz. power generation in Fluidized Bed Combustion (FBC) plants, selling to brick manufacturers or adopting other environmental friendly disposal options as feasible.
- c) The reject dumps and tailings shall be suitably handled to avoid any contamination.
- d) The effluent from washeries including tailings pond shall be suitably treated and reused to minimize water consumption with zero discharge concept.

7. CONSERVATION AND CLEAN TECHNOLOGY:

- a) R&D projects shall be taken up to promote clean coal technology and improve the existing technologies.
- b) Energy saved is energy produced. Voluntary energy audit to be done for corrective action to reduce carbon footprint.
- c) Clean Development Mechanisms will be explored for reducing emission of Green House Gases by exploration, identification, preparation of projects reports for extraction of methane from Coal Bed, Coal Mine, Abandoned Mine, Ventilation Air, UG Coal Gasification, generation and utilization of renewable energy etc.

8. AWARENESS PROGRAMME:

- a) Publicity to generate awareness through exchange & communication of information, newsletters and periodicals on environment, seminars, workshops, celebration of World Environment Day etc. at CIL / Subsidiary HQs, Areas & units to be undertaken. Regular training programs to be organized at various levels to inculcate awareness among employees.
- b) Courses on environmental and forestry laws and Environmental Protection Measures and the Corporate Policy to be organized for project executives for improving knowledge.
- c) CIL to give annual awards for achieving excellence in environment related

issues and activities. These awards will be in recognition for implementation of EMP, land reclamation and compliance of statutes, proper maintenance of air & water quality and noise level.

9. WASTE MANAGEMENT:

CIL will undertake appropriate action for safe handling, storage and disposal of solid waste and hazardous waste generated from its industrial set up and colonies as per relevant rules. The biomedical waste generated from hospitals and dispensaries will be collected and disposed in appropriate facilities created as per statutes. E-waste management and handling of various types of e-waste generated in its operations will be done as per rule.

10. CORPORATE ENVIRONMENT RESPONSIBILITY:

Corporate Environment Responsibility (CER) is mandatory for issuing environmental clearance for all the Greenfield and Brownfield projects as per directives of MoEFCC with effect from 1st May, 2018 (O.M.No.22-65/2017-IAIII dt. 19.06.2018). Budgetary provisions should be kept for implementation of provisions of CER for all the projects which will be submitted to MoEFCC for grant of environmental clearance.

11. INCORPORATION OF VIEWS OF STAKEHOLDERS:

CIL will critically examine and incorporate the viewpoints of various stakeholders like PAPs/PAFs, Parliamentary Committees, Standing Sub-Committees, NGOs etc. CIL being a listed entity with stock exchange, it will also take into consideration the observations/viewpoints of international investors.

12. IMPLEMENTATION OF POLICY:

- i) **Manpower:** CIL shall have environmental divisions at decision making & operational levels in its structure. The environment department shall be set up and strengthened at:
 - i) CIL Corporate HQ at Kolkata
 - ii) Subsidiary HQs
 - iii) Areas / Units / Collieries / Workshops /Washeries
 - iv) CMPDI (HQ) & CMPDI Regional Institutes
- ii) **Roles and Responsibilities:** The environmental department, set up at company HQs, Areas and Unit levels with appropriate manpower and resources, shall be responsible for implementation of policy, obtaining EC, FC, consent to establish

& operate, statutes requirements and undertaking mitigation measures besides preparation of action plan every year and also to intimate the status of implementation to the management regularly.

iii) Annual Environment Budget (Revenue & Capital): The Annual Environment Budget (revenue & capital) shall be prepared based on the action plan including monitoring of various bench marks and the budget utilization. The year wise funds earmarked for environmental protection measures shall be kept in separate accounts with Environmental cost code.

13. FLEXIBILITY TO THE SUBSIDIARY COMPANIES:

CEP 2018 will be applicable for all subsidiaries of CIL. The subsidiary company Boards have been authorized to approve necessary modifications in CEP 2018 with reference to unique conditions prevailing at the concerned subsidiary.

REVIEW OF ENVIRONMENTAL POLICY:

In view of the present fast changing social, economic and environmental scenario, this Policy shall be reviewed every 5 years to incorporate the changes in the legal, technical, environmental, economic and social inputs prevailing at that time. Whenever, there is change in National Environmental Policy or other National / State relevant policies, Acts etc, this Corporate Environmental Policy would be reviewed and suitably revised.

Annexure 8

Environmental Monitoring Report of Khairaha Underground Mine

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KHAIRAHA U.G.**AIR SAMPLING STATIONS: -**

S/L. No	SAMPLING STATIONS	STN.NO.	No. OF SAMPLES
			SPM,PM 10,SO ₂ ,NO ₂
01	KHAIRAHA VILLAGE	37	02
02	KUNDARI VILLAGE	38	02
03	ELECTRICAL SUB STATION KHAIRAHA PROJECT	39	02
04	CHIRHITI VILLAGE	02	02
05	KANHAT VILLAGE	07	02
06	MAIN GATE	40	02
07	MANAGERS CFFICE	41	02
08	LAMP ROOM	42	02
TOTAL			16

NOISE SAMPLING STATIONS: -

S/L. No	SAMPLING STATIONS	STN.NO.	No. OF SAMPLES
01	KHAIRAHA VILLAGE	41	02
02	KUNDARI VILLAGE	42	02
03	ELECTRICAL SUB STATION KHAIRAHA PROJECT	43	02
04	CHIRHITI VILLAGE	02	02
05	KANHAT VILLAGE	07	02
06	MAIN GATE	44	02
07	MANAGERS CFFICE	45	02
08	LAMP ROOM	46	02
TOTAL			16

EFFLUENT SAMPLING STATIONS: -

S/L. No	SAMPLING STATIONS	STN.NO.	No. OF SAMPLES
01	SARBHA NALA (NEAR BODARI VILLAGE)	30	-
02	MINE DISCHARGE (AFTER SETTLING)	31	02
03	UP STREAM OF BAISAHA NALA (NEAR KUNDARI VILLAGE)	32	02
04	DOWN STREAM OF BAISAHA NALA (NEAR KANHAT VILLAGE)	33	02
TOTAL			06

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AIR QUALITY REPORT

Month	February	Area	Sohagpur	Report No	02
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Name of the Customer	South Eastern Coalfields Ltd, Bilaspur	Date of Issue	14.03.2022
Name of the Project	KHAIRAHA U.G.	Sample Reference No.	CMPDI/HSD/SGP/FEB

Parameter					SPM	PM10	PM2.5	SO ₂	NO ₂	Remarks
Limit (in µg/m ³)-24 hrs.	Industrial Zone -(G.S.R. 742(E), dated 25.9.2000)		A-O		600	300	60	120	120	
			A-N		500	250	60	120	120	
	Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), April 02, 1996)		B		200	100	60	80	80	
Method of analysis					IS-5182 PART 4	IS-5182 PART 23	CPCB Vol-I	IS-5182 PART 2	IS-5182 PART 6	
Station Name	St. Code	St. cat.	Date of sampling	Date of analysis	SPM	PM10	PM2.5	SO ₂	NO ₂	
KHAIRAHA VILLAGE	37	B	12.02.22	18.02.22	173	69	-	09	21	-
			26.02.22	02.03.22	170	64	-	11	18	-
KUNDARI VILLAGE	38	B	07.02.22	12.02.22	118	68	-	11	20	-
			19.02.22	24.02.22	121	63	-	09	17	-
ELC. S.STATION KHAIRAHA PROJECT	39	A-N	07.02.22	12.02.22	341	168	-	18	27	-
			19.02.22	24.02.22	345	163	-	21	30	-
CHIRHITI VILLAGE	02	B	02.02.22	08.02.22	145	49	-	13	23	-
			17.02.22	18.02.22	147	43	-	11	19	-
KANHAT VILLAGE	07	B	02.02.22	08.02.22	129	58	-	09	24	-
			17.02.22	18.02.22	123	51	-	08	23	-
MAIN GATE	40	A-N	07.02.22	12.02.22	332	168	-	20	34	-
			19.02.22	24.02.22	337	164	-	22	33	-
MANAGERS OFFICE	41	A-N	07.02.22	12.02.22	336	155	-	21	30	-
			19.02.22	24.02.22	332	161	-	19	32	-
LAMP ROOM	42	A-N	07.02.22	12.02.22	333	153	-	21	30	-
			19.02.22	24.02.22	338	157	-	18	31	-

Tested by

Checked by

Officer In-charge

Note: 1) The results above relate to the samples tested.

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NOISE QUALITY REPORT

Month	February	Area	Sohagpur	Report No	02
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Name of the Customer	South Eastern Coalfields Ltd, Bilaspur	Date of Issue	14.03.2022
Name of the Project	KHAIRAHA U.G.	Sample Reference No.	CMPDI/HSD/SGP/FEB

Parameter			The Noise Pollution (R & C) rules, 2000		Remarks	
			Day Time	Night Time		
Limit in dB(a) Leq	Industrial area	A	75	70		
	Commercial area	B	65	55		
	Residential Area	C	55	45		
	Silence Zone	D	50	40		
Method of analysis	CPCB Protocol For Ambient Level Noise Monitoring					
Station Name	Station Code	Station category	Date of measurement	Value in dB(a)	Value in dB(a)	
KHAIRAHA VILLAGE	41	C	03.02.2022	45.8	33.5	-
			24.02.2022	44.4	34.9	-
KUNDARI VILLAGE	42	C	03.02.2022	46.9	32.4	-
			24.02.2022	45.3	35.1	-
ELECTRICAL SUBSTATION KHAIRAH PROJECT	43	A	03.02.2022	52.7	44.9	-
			24.02.2022	52.1	45.3	-
CHIRHITI VILLAGE	02	C	03.02.2022	46.8	41.4	-
			24.02.2022	47.4	40.9	-
KANHAT VILLAGE	07	C	03.02.2022	41.1	36.1	-
			24.02.2022	42.7	36.8	-
MAIN GATE	44	A	03.02.2022	55.7	50.6	-
			24.02.2022	58.5	51.1	-
MANAGERS OFFICE	45	A	03.02.2022	53.9	39.9	-
			24.02.2022	51.3	39.3	-
LAMP ROOM	46	A	03.02.2022	52.6	41.7	-
			24.02.2022	51.1	40.4	-

Prepared by

Checked by

Officer In-charge

Note: 1) The results above relate to the samples tested.

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EFFLUENT WATER QUALITY REPORT

Month	February	Area	Sohagpur	Report No	02
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Name of the Customer	South Eastern Coalfields Ltd, Bilaspur	Date of Issue	14.03.2022
Name of the Project	KHAIRAHA U.G.	Sample reference No.	CMPDI/HSD/SGP/FEB

Parameter				pH Value, LDL	Total suspended Solids, mg/l, max	C.O.D, mg/l, max	Oil & Grease, mg/l, max	B.O.D. (3 days 27°C)mg/l, max
Lower detection Limit				0.01	25.0	4.0	2.0	2.0
General Standards for Discharge of Environmental Pollution (Part A: Effluent) as per Schedule VI, Environment (Protection) Rules				5.5 to 9.0	100.0	250.0	10.0	30.0
Station name	St. Code	Date of Sampling	Date of Analysis					
SARBHA NALA (NEAR BODARI VILLAGE)	30	N.A.	N.A.	-	-	-	-	-
		N.A.	N.A.	-	-	-	-	-
MINE DISCHARGE (AFTER SETTLING)	31	02.02.22	02.02.22 to 17.02.22	7.41	60	16	<2.0	-
		26.02.22	26.02.22 to 12.03.22	7.38	63	16	<2.0	-
UP STREAM OF BAISAHA NALA (NEAR KUNDARI VILLAGE)	32	02.02.22	02.02.22 to 17.02.22	7.24	41	12	<2.0	-
		26.02.22	26.02.22 to 12.03.22	7.20	43	12	<2.0	-
DOWN STREAM OF BAISAHA NALA (NEAR KANHAT VILLAGE)	33	02.02.22	02.02.22 to 17.02.22	7.36	53	16	<2.0	-
		26.02.22	26.02.22 to 12.03.22	7.31	51	16	<2.0	-

A.K.

Tested by

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Checked by

[Signature]

Officer In-charge

Note: 1) The results above relate to the samples tested.

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Month	February	2022	Area	Sohagpur	Report No.	FB22SH
Customer	South Eastern Coalfields Ltd (SECL), Bilaspur			Date of Issue	13-03-22 10:41	
Project	Khairaha UG		Sample Ref. No.	CMPDI/ENV/HSD/2022/71, Date-04/02/2022		
Sampling Stations	xiv	Khairaha Village Hand Pump Water			Date of Sampling	3-Feb-2022
	xv	Bodari Village Well Water			Date of Sampling	3-Feb-2022

Sl. No.	Parameter	Method of Analysis	Date of Analysis		3-Feb-2022		Uncertainty of Measurement (at 95% Confidence Level & K= 1.96)
			Observed Values		IS 10500: 2012		
			xiv	xv	Acceptable Limit (Max)*	Permissible Limit in the Absence of Alternate Source (Max)	
1	Colour, Hazen LDL: 1.0 Hazen	APHA, 23rd Edition, 2017, 2120. C. Spectrometric single wavelength method	6	4	5	15	±1.05 Hazen at 49.86 Hazen
2	Odour	IS 3025 (Part 5):1983, Physical (Qualitative)	Agreeable	Agreeable	Agreeable	Agreeable	None
3	Phenolic compounds, mg/l LDL: 0.001 mg/l	APHA, 23rd Edition, 2017, 5530. C, Chloroform Extraction Method	BDL	BDL	0.001	0.002	±0.0204 mg/l at 0.100 mg/l
4	Turbidity, NTU LDL: 1.0 NTU	IS 3025 (Part 10):1984, R : 2006, Nephelometric Method	2	1	1	5	±0.855 NTU at 41.58 NTU
5	pH LDL: 4.00	IS 3025 (Part 11):1983, R : 2012, Electrometric Method	7.27	7.34	6.5-8.5	No relaxation	±0.1272 at 7.01
6	Alkalinity, mg/l as CaCO ₃ LDL: 5.0 mg/l	IS 3025(Part 23):1986,R 2003 Titration Method	183	82	200	600	±0.19696 mg/l at 10.0 mg/l
7	Total Hardness, mg/l as CaCO ₃ LDL: 4.0 mg/l	IS 3025 (Part 21):2009, EDTA Method	230	364	200	600	±11.545 mg/l at 612.8 mg/l
8	Iron, mg/l LDL: 0.05 mg/l	IS 3025 (Part 53) :2003, R:2009 AAS-Flame Method	BDL	BDL	0.3	No relaxation	±0.0782 mg/l at 7.95 mg/l
9	Chlorides, mg/l LDL: 5.0 mg/l	IS 3025(Part 32):1988, R : 2007, Argentometric Method	7.9	41.7	250	1000	±6.551 mg/l at 253.5 mg/l
10	Residual Free Chlorine, mg/l LDL: 0.1 mg/l	APHA, 23rd Edition, 2017, 4500G, DPD Colorimetric Method	BDL	BDL	0.2	1	±0.0082 mg/l at 0.1 mg/l
11	Total Dissolved Solids, mg/l LDL: 30.0 mg/l	IS 3025 (Part 16):1984 R : 2006, Gravimetric Method	328	560	500	2000	±4.473 mg/l at 592.0 mg/l
12	Calcium, mg/l LDL: 5.0 mg/l	IS 3025 (Part 40): 1991, R : 2009, EDTA Method	22	32	75	200	±2.512 mg/l at 99.8 mg/l
13	Copper, mg/l LDL: 0.03 mg/l	IS 3025 (Part 42) : 1992 R : 2009, AAS-Flame Method	BDL	BDL	0.05	1.5	±0.131 mg/l at 4.90 mg/l
14	Manganese, mg/l LDL: 0.05 mg/l	IS 3025 (Part 59) : 2006, AAS-Flame Method	BDL	BDL	0.1	0.3	±0.026 mg/l at 2.44 mg/l
15	Sulphate, mg/l LDL: 2.0 mg/l	APHA, 23rd Edition, 2017, 4500-SO42- E Turbidimetric Method	73	133	200	400	±0.640 mg/l at 19.88 mg/l
16	Nitrate, mg/l LDL: 0.5 mg/l	APHA, 23rd Edition, 2017, 4500, B UV-Spectrophotometric Method	BDL	12.80	45	No relaxation	±0.528 mg/l at 20.41 mg/l
17	Fluoride, mg/l LDL: 0.1 mg/l	APHA, 23rd Edition, 2017, 4500, F-D SPADNS Method	0.33	0.57	1	1.5	±0.014 mg/l at 0.98 mg/l
18	Selenium, mg/l LDL: 0.001 mg/l	IS 3025 (Part 56):2003 AAS- VGA Method	BDL	BDL	0.01	No relaxation	±0.000938 mg/l at 0.001 mg/l
19	Arsenic, mg/l LDL: 0.002 mg/l	IS 3025 (Part 37):1988,R 2003, AAS- VGA Method	BDL	BDL	0.01	0.05	±.0081 mg/l at 0.018 mg/l
20	Lead, mg/l LDL: 0.005 mg/l	APHA, 23rd Edition, 2017, 3113B, AAS-GTA Method	BDL	BDL	0.01	No relaxation	±0.000266 mg/l at 0.005 mg/l
21	Zinc, mg/l LDL: 0.01 mg/l	IS 3025 (Part 49) : 1994, R : 2009, AAS-Flame Method	0.09	0.08	5	15	±0.0013 mg/l at 0.01 mg/l
22	Total Chromium, mg/l LDL: 0.05 mg/l	IS 3025 (Part 52) : 2003, AAS-Flame Method	BDL	BDL	0.05	No relaxation	±0.004 mg/l at 0.05 mg/l
23	Total Coliform, MPN/100 ml	APHA, 22nd Edition, 9221 Multiple Tube Fermentation Tech.	NIL	NIL	Nil	No relaxation	---
24	Boron, mg/l LDL: 0.5 mg/l	APHA, 23rd Edition, 2017, 4500-B, Carmine Method	BDL	BDL	0.5	1	±0.310 mg/l at 5.16 mg/l

*Except Sl. No. 10 for which Acceptable Limit is Min

LDL indicates Lower Detection Limit & BDL indicates Below Detection Limit


J Prasad
Junior Scientific Asst


M. Reagan Singh
Technical Manager

Note: The results above relate to the samples tested as received. This report cannot be reproduced in part or full without the written permission of the HOD (Env), CMPDI, RI-V. The Green, Yellow and Red color highlights in observed values indicate acceptable values, values exceeding acceptable limits but below permissible limits and values exceeding permissible limits respectively.

Annexure 9

Consent to Operate of Khairaha Underground Mine



Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742

RED-LARGE

CCA-Renewal

CONSENT NO: ***

PCB ID: 20070

Outward No:114030,23/11/2021

Consent No:AW-54664

To,

The Occupier,

M/s. Khairaha U/g Mine South Eastern Coalfields Ltd.

126, KHAIRAHA U.G.MINE,

PO KHAIRAHA, City : Khairha,

Dist : Shahdol, Tal : Budhar, SIDC : Not In SIDC, Latitude : 23.1600 Longitude : 81.4611

Subject: Grant of Renewal of Consent under section 25 of the Water (Prevention & Control of Pollution) Act,1974 under section 21 of the Air (Prevention & Control of Pollution) Act,1981

Ref: Your Renewal of Consent Application Receipt No. 1086661 Dt. 24/09/2021 and last communication received on Dt.09/11/2021

With reference to your above application for Renewal of Consent has been considered under the aforesaid Acts and existing rules therein. The M. P. Pollution Control Board has agreed to grant consent up to **31/12/2022**, subject to the fulfillment of the terms & conditions, enclosed with this letter and-

SUBJECT TO THE FOLLOWING CONDITIONS :-

- a. **Location:** Plot No:126, PO: Khairaha, Tal : Sohagpur, Distt : Shahdol, (M.P.)
- b. **Mining Lease area** 472. 065 Hact
- c. **Product & Production Capacity:**

Activity / Product	Qty / year
Mining of Coal	8,19,000 Metric Ton Per Year

- Note:- (1) For any change in above industry shall obtain fresh consent from the Board.
 (2) PP to ensure that individual Water mist gun & Dust Sweeping Machine is procured & installed in 2 months time, to have effective dust suppression in mine area.
 (3) PP shall ensure installation of wind breaking wall of adequate height around the coal stock yard in 2 months time.

The Validity of the consent is up to **31/12/2022** and has to be renewed before expiry of consent validity. Online application through XGN with annual license fees in this regard shall be submitted to this office 6 months before expiry of the consent/Authorization. Board reserves the right to amend/cancel / revoke the above condition in part or whole as and when required.

Enclosures:-

- * Conditions under Water Act
- * Conditions under Air Act
- * General conditions

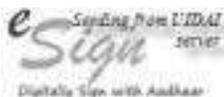
CC to :-

1. District Mining Officer, (Mining Section), Collector office, Shahdol Dist. Shahdol (M.P.) for information.
2. M.P. State Mining Corporation, Arera Hills, Jail Road, Bhopal (M.P.) for necessary action please.
3. Regional officer, Regional office, MPPCB, Shahdol (M.P.)

Validity unknown

Digitally Signed by: A. A
Mishra, Member Secretary
Date: 23/11/2021 12:35:51 AM

ACHYUT ANAND MISHRA
Member Secretary



(Organic Authentication on AADHAR from UIDAI Server)
TPAV # SOSX223J6R

SPM value during 27.05.2022-28.05.2022

900

Date of sampling : 27.05.2022 to 28.05.2022

Date of Analysis : 28.05.2022

Sample collected by : S.K. Nigam & Balendra Singh (Lab attendant) (M.P.P.C.B.Shahdol)

Sample Analysis By : Saurabh Mishra & Pratiksha Tiwari.

S.no.	location	27.05.2022 to 28.05.2022	Avg. value	Remarks
		SPM ($\mu\text{g}/\text{m}^3$)		
1	Managers office (Core area)	210	274	Excess water sprinkling in plant premises.
		352		
		260		
2	Main gate (Core area)	218	280	Less movement of trucks.
		345		
		277		
3	Lamp room (Core area)	322	341	
		397		
		305		
4	Electric sub station (Core area)	235	236	
		198		
		276		

PM-10 values during monitoring on 27.05.2022-28.05.2022

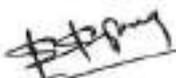
S.no.	location	27.05.2022 to 28.05.2022 PM-10 _(µg/m³)	Avg. value	Remarks
1	Mangers office (Core area)	153 281 189	208	Excess water sprinkling in plant premises.
2	Main gate (Core area)	150 291 210	217	Less movement of trucks.
3	Lamp room (Core area)	258 366 274	299	
4	Electric sub station (Core area)	179 104 179	154	
5	Chirhiti village (Buffer area)	111 81 89	94	it is observed during monitoring that Local vehicle movement and burning of wood and coal in evening time.
6	Khannath Village (Buffer area)	83 102 78	88	
7	Kundrai Village (Buffer area)	86 75 100	87	
8	Khairaha Village (Buffer area)	115 107 74	99	Traffic movement observed near by road to coal siding
9	Office Of GM, Burhar near coal siding (Buffer area)	210 123 257	197	

SO₂ & NO₂ values during monitoring on 27.05.2022-28.05.2022

200
20

S.no.	location	27.05.2022	27.05.2022	Avg. value		Remarks
		28.05.2022	28.05.2022	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	
1	Managers office (Core area)	38.68	47.48	35.23	46.18	Excess water sprinkling in plant premises. Less movement of trucks.
		46.79	58.14			
		43.19	52.81			
		35.09	45.54			
		18.89	33.43			
		28.79	39.73			
2	Main gate (Core area)	30.83	53.13	34.21	49.33	
		46.69	57.88			
		44.93	52.66			
		34.36	48.86			
		20.26	38.43			
		28.19	45.07			
3	Lamp room (Core area)	36.89	47.48	32.99	47.07	
		42.29	59.11			
		39.59	52.32			
		33.29	49.42			
		24.29	35.37			
		21.59	38.76			
4	Electric sub station (Core area)	31.72	27.51	30.99	43.64	
		47.34	40.32			
		38.76	58.35			
		27.31	51.70			
		16.74	45.54			
		24.67	38.42			
5	Chirhiti village (Buffer area)	15.86	34.63	19.67	32.40	it is observed during monitoring that Local vehicle movement and burning of wood and coal in evening time.
		29.07	38.42			
		26.43	37.47			
		20.26	25.61			
		14.97	27.51			
		11.45	30.83			
6	Khannath Village (Buffer area)	20.22	34.15	20.06	34.48	
		24.82	41.58			
		22.06	38.61			
		20.22	36.13			
		14.71	26.73			
		18.38	29.70			

7	Kundrai Village (Buffer area)	23.39	30.52	21.59	28.57	
		28.79	33.42			
		25.19	29.55			
		20.69	26.64			
		13.49	23.73			
		17.99	27.61			
8	Khairaha Village (Buffer area)	16.54	28.71	21.90	30.35	Traffic movement observed near by road to coal siding
		24.82	34.65			
		27.58	39.60			
		24.82	30.69			
		15.63	22.27			
		22.06	26.23			
9	Office Of GM, Burhar near coal siding (Buffer area)	25.74	33.16	23.74	30.93	Traffic movement observed near by road to coal siding
		27.58	38.61			
		29.42	30.69			
		24.82	25.74			
		19.30	27.22			
		15.63	30.19			


Saurabh Mishra
JSA
M.P.P.C.B. Shahdol


B.M. Patel
Jr. Scientist
M.P.P.C.B. Shahdol


Dr. A.K. Dubey
Scientist
M.P.P.C.B. Shahdol

SPM value during 20.05.2022-21.05.2022

date of sampling : 20.05.2022 to 21.05.2022
date of Analysis : 21.05.2022

sample collected by : Dr.Anoop Chaturvedi, Scientist" CPCB Zonal Office, Bhopal, Dr. A.K.Dubey (Scientist), B.M.Patel (Jr.Scientist) With team(M.P.P.C.B.Shahdol)

Sample Analysis By : Dr.Anoop Chaturvedi, Scientist" CPCB Zonal Office, Bhopal, B.M.Patel (Jr.Scientist), Saurabh Mishra & Pratiksha Tiwari.

S.no.	location	20.05.2022 to 21.05.2022	Avg. value	Remarks
		SPM ($\mu\text{g}/\text{m}^3$)		
1	Managers office (Core area)	218	295	Excess water sprinkling in plant premises.
		379		
		288		
2	Main gate (Core area)	211	284	Less movement of trucks.
		347		
		295		
3	Lamp room (Core area)	315	345	
		402		
		317		
4	Electric sub station (Core area)	258	245	
		196		
		282		

PM-10 values during monitoring on 20.05.2022-21.05.2022

702

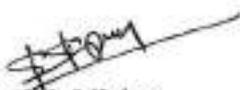
Sl. No.	location	20.05.2022 to 21.05.2022	Avg. value	Remarks
		PM-10 _(µg/m³)		
1	Mangers office (Core area)	168	215	Excess water sprinkling in plant premises. Less movement of trucks.
		279		
		198		
2	Main gate (Core area)	149	216	
		297		
		203		
3	Lamp room (Core area)	279	308	
		359		
		288		
4	Electric sub station (Core area)	196	164	
		115		
		182		
5	Chirhiti village (Buffer area)	112	97	it is observed during monitoring that Local vehicle movement and burning of wood and coal in evening time.
		83		
		96		
6	Khannath Village (Buffer area)	94	94	
		106		
		84		
7	Kundrai Village (Buffer area)	86	89	
		80		
		101		
8	Khairaha Village (Buffer area)	106	96	Traffic movement observed near by road to coal siding
		94		
		88		
9	Office Of GM, Burhar near coal siding (Buffer area)	229	206	
		119		
		269		

SO₂ & NO₂ values during monitoring on 20.05.2022-21.05.2022

702

S.no	location	20.05.2022	20.05.2022	Avg. value		Remarks
		21.05.2022	21.05.2022	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	
1	Managers office (Core area)	33.48	44.11	38.47	50.05	
		45.81	57.40			
		49.37	60.72			
		55.51	59.77			
		27.31	40.32			
		19.38	37.95			
2	Main gate (Core area)	41.41	52.65	43.31	51.78	Excess water sprinkling in plant premises. Less movement of trucks.
		51.10	55.97			
		59.91	64.04			
		53.74	61.19			
		31.72	41.27			
		22.02	35.57			
3	Lamp room (Core area)	38.76	46.96	37.74	50.52	
		42.29	49.81			
		48.46	57.87			
		51.10	63.09			
		21.14	42.22			
		24.67	43.16			
4	Electric sub station (Core area)	40.53	55.50	36.36	49.02	
		49.34	54.55			
		44.93	65.94			
		39.65	57.87			
		19.93	37.00			
		23.79	35.57			
5	Chirhiti village (Buffer area)	23.79	41.27	24.52	37.55	it is observed during monitoring that Local vehicle movement and burning of wood and coal in evening time.
		24.67	44.11			
		34.36	48.86			
		32.60	37.95			
		14.97	27.51			
		16.74	25.61			
6	Khannath Village (Buffer area)	21.14	33.68	22.91	32.41	
		24.67	32.25			
		32.60	41.74			
		29.95	39.84			
		15.86	24.66			
		13.21	22.29			
7	Kundrai Village (Buffer area)	22.90	32.25	23.64	31.46	
		25.55	37.47			
		30.83	43.16			
		34.36	33.20			
		12.33	20.39			
		15.86	22.29			
8	Khairaha Village (Buffer area)	18.50	25.61	22.64	30.12	Traffic movement observed near by road to coal siding
		32.79	41.74			
		26.43	35.57			
		33.48	40.79			
		11.45	18.02			
		13.21	18.97			

9	Office Of GM, Burhar near coal siding (Buffer area)	25.55	31.30	25.99	32.49	Traffic movement observed near by road to coal siding	901
		27.31	33.20				
		33.48	37.00				
		37.88	43.16				
		14.97	23.71				
		16.74	26.56				


Saurabh Mishra
 JSA
 M.P.P.C.B.Shahdol


B.M. Patel
 Jr. Scientist
 M.P.P.C.B.Shahdol


Dr. Anoop Chaturvedi
 Scientist 'B'
 CPCB Zonal Office, Bhopal


Dr. A.K. Dubey
 Scientist
 M.P.P.C.B.Shahdol

Date of Monitoring
Monitoring by

Noise monitoring data on 20.05.2022

: 20.05.2022

: Anoop Chaturvedi, Scientist 'B' CPCB Zonal Office, Bhopal, Dr. A.K. Dubey
(Scientist), B.M. Patel (Jr. Scientist) With team (M.P.P.C.B. Shahdol)

S.No.	Locations		20.05.2022	Remarks	
1	Mangers office (Core area)	Day	63.7	Convoyer belts movement, coal inloading, and truck movement is the only source of noise in plant area.	
		Night	61.5		
2	Main gate (Core area)	Day	68.6		
		Night	64.2		
3	Lump room (Core area)	Day	73.2		
		Night	69.2		
4	Electric sub station (Core area)	Day	64.5		
		Night	62.5		
5	Chirhati village (Buffer area)	Day	64.1		Non-commercial Vehicles movements is the only source of noise.
		Night	60.1		
6	Khamnath Village (Buffer area)	Day	52.4		
		Night	53.0		
7	Kundrai Village (Buffer area)	Day	53.1		
		Night	51.5		
8	Khairaha Village (Buffer area)	Day	58.9		
		Night	55.8		
9	Office Of GM, Burhar near coal siding (Buffer area)	Day	62.1		
		Night	58.8		



B.M. Patel
(Jr. Scientist)
M.P.P.C.B. Shahdol



Anoop Chaturvedi
Scientist 'B'
EPCB Zonal Office, Bhopal

Dr. A.K. Dubey
Lab Incharge
M.P.P.C.B. Shahdol



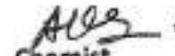
REGIONAL OFFICE
M.P. POLLUTION CONTROL BOARD
By Pass Chowk Gortara, Burhar Road Shahdol
E mail : ropcbshahadol@gmail.com

75
आजादी का
अमृत महोत्सव

Noise monitoring data on 27.05.2022

Date of Monitoring : 27.05.2022
Monitoring by : Balendra Singh (Lab Staff)

S.No.	Locations		27.05.2022	Remarks
1	Mangers office (Core area)	Day	65.1	Coal Conveyer belts movement, coal loading and truck movement is the only source of noise in plant area.
		Night	60.4	
2	Main gate (Core area)	Day	69.2	
		Night	63.9	
3	Lamp room (Core area)	Day	73.2	
		Night	69.1	
4	Electric sub station (Core area)	Day	65.2	
		Night	61.9	
5	Chirhiti village (Buffer area)	Day	60.5	
		Night	51.5	
6	Khannath Village (Buffer area)	Day	54.3	
		Night	49.2	
7	Kundrai Village (Buffer area)	Day	53.4	
		Night	51.1	
8	Khairaha Village (Buffer area)	Day	56.2	
		Night	52.2	
9	Office Of GM, Burhar near coal siding (Buffer area)	Day	63.4	
		Night	59.2	


Chemist
M.P.P.C.B.Shahdol


Jr. Scientist
M.P.P.C.B.Shahdol



क्षेत्रीय कार्यालय

ANNEXURE-XI

मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड

बाई पास चौक गोरतरा, बुढार रोड, जिला शहडोल 484001 (म.प्र.)

Email:ropcbshahadol@gmail.com

आजादीका
अमृत महोत्सव

क्रमांक 632/क्षेका/प्रनिबो/शहडोल/2022

शहडोल, दिनांक 13/5/2022

269

प्रति,

कार्यपालन यंत्री,

पी.डब्ल्यू.डी., सड़क निर्माण विभाग,

जिला-शहडोल (म.प्र.)

विषय:-

मेसर्स एस.ई.सी.एल. खैरहा भूमिगत खदान खैरहा तिराहा से बाई पास रोड बुढार कोल साइडिंग सड़क मार्ग की अद्यतन स्थिति तक दोनों साइड के सुदृणीकरण एवं रख-रखाव एवं प्रस्तावित कार्य योजना के संबंध में जानकारी बावत।

संदर्भ:-

माननीय राष्ट्रीय हरित अधिकरण प्रकरण ओ.ए.क्रमांक 6/2019 में पारित आदेश 28.03.2022 के परिपालनार्थ।

उपरोक्त विषयांतर्गत संदर्भ अनुसार माननीय राष्ट्रीय हरित अधिकरण में प्रचलित प्रकरण ओ.ए. क्रमांक 6/2019 में पारित आदेश 28.03.2022 के परिपालनार्थ पर्यावरण प्रभाव ऑकलन हेतु बहु विभागीय समिति का गठन किया गया है। मेसर्स एस.ई.सी.एल. खैरहा भूमिगत खदान (मैकेनाइज्ड) सोहागपुर (म.प्र.) के क्षमता विस्तार 0.585 एम.टी.पी.ए. से 0.819 एम.टी.पी.ए. उत्पादन होने से खैरहा तिराहा से बाई पास रोड बुढार कोल साइडिंग मार्ग के दोनों साइड के सुदृणीकरण एवं रख-रखाव जिससे उत्पन्न होने वाली रोड़ से डस्ट को नियंत्रित किये जाने के संबंध में की गई कार्यवाही एवं प्रस्तावित कार्य योजना की जानकारी के संबंध में स्पष्ट मत सहित जानकारी इस कार्यालय को 07 दिवस में संप्रेषित करने हेतु अनुरोध है।

यदि आपके द्वारा कोई भी मत संसूचित नहीं किया जाता है, तो यह माना जा सकता है कि परियोजना विस्तार से किसी भी प्रकार का प्रतिकूल प्रभाव नहीं पड़ रहा है।

(संजीव मेहरा)

क्षेत्रीय अधिकारी

014

क्रमांक 63/क्षेका/प्रनिबो/शहडोल/2022

शहडोल, दिनांक 19/05/2022

268

मुख्य नगर पालिका अधिकारी,
नगर पालिका परिषद, शहडोल,
जिला-शहडोल (म.प्र.)

विषय:- सरफा नाला से जल प्रदाय गुणवत्ता के संबंध में जानकारी बावत।

संदर्भ:- माननीय राष्ट्रीय हरित अधिकरण प्रकरण ओ.ए.कमांक 6/2019 में पारित आदेश 28.03.2022 के परिपालनार्थ।

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उपरोक्त विषयांतर्गत संदर्भ अनुसार माननीय राष्ट्रीय हरित अधिकरण में प्रचलित प्रकरण ओ.ए.कमांक 6/2019 में पारित आदेश 28.03.2022 के परिपालनार्थ पर्यावरण प्रभाव ऑकलन हेतु बहु विभागीय समिति का गठन किया गया है। मेसर्स एस.ई.सी.एल. खैरहा भूमिगत खदान (मैकेनाइज्ड) सोहागपुर (म.प्र.) के क्षमता विस्तार 0.585 एम.टी.पी.ए. से 0.819 एम.टी.पी.ए. उत्पादन होने से उत्पन्न होने वाले जल प्रवाहित होने से सरफा नाला के जल प्रदाय की गुणवत्ता के संबंध में स्पष्ट मत सहित जानकारी इस कार्यालय को 07 दिवस के अन्दर अनिवार्य रूप से प्रेषित करने का कष्ट करें।

यदि आपके द्वारा कोई भी मत संसूचित नहीं किया जाता है, तो यह माना जा सकता है कि परियोजना विस्तार से किसी भी प्रकार का प्रतिकूल प्रभाव नहीं पड़ रहा है।

0/c

(सजीव मेहरा)
क्षेत्रीय अधिकारी



क्षेत्रीय कार्यालय
मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड

बाई पास चौक गोरतरा, बुढार रोड, जिला शहडोल 484001 (म.प्र.)
Email: ropcbshahadol@gmail.com

आज़ादी का
अमृत महोत्सव

क्रमांक 639/क्षेका/प्रनिबो/शहडोल/2022

शहडोल, दिनांक 19/03/2022

267

प्रति,

प्रभारी अण्ड चिकित्सा अधिकारी,
सामुदायिक स्वास्थ्य केन्द्र, बुढार/घनपुरी
जिला-शहडोल (म.प्र.)

विषय:- वर्ष 2019 से अद्यतन स्थिति तक प्रभावित ग्रामवासियों के स्वास्थ्य संबंधी एवं ग्राम खैरहा से बुढार मार्ग पर हुऐ दुर्घटनों की जानकारी के संबंध में।

संदर्भ:- माननीय राष्ट्रीय हरित अधिकरण में प्रचलित प्रकरण ओ.ए.कमांक 6/2019 में पारित आदेश दिनांक 28.03.2022 के परिपालनार्थ।

उपरोक्त विषयांतर्गत संदर्भ अनुसार माननीय राष्ट्रीय हरित अधिकरण में प्रचलित प्रकरण ओ.ए.

कमांक 6/2019 में पारित आदेश 28.03.2022 के परिपालनार्थ पर्यावरण प्रभाव के ऑकलन हेतु बहु विभागीय समिति का गठन किया गया है, मेसर्स एस.ई.सी.एल. खैरहा भूमिगत खदान (मैकेनाइज्ड) सोहागपुर (म.प्र.) के क्षमता विस्तार 0.585 एम.टी.पी.ए. से 0.819 एम.टी.पी.ए. उत्पादन होने से समीपस्थ स्थित ग्राम-बगवांर, चिरहटी, बुढार, खन्ननाथ, कुन्दराई, खैरहा, करकटी, घनपुरी एवं अन्य के रहवासियों में ब्रोनकाईटिस, अस्थमा, श्रवण क्षमता में कमी तथा गैस्ट्रो एवं संबंधित अन्य बीमारियों की वर्ष 2019 से अद्यतन स्थिति तक स्वास्थ्य संबंधी एवं ग्राम खैरहा से बुढार सड़क मार्ग पर हुऐ दुर्घटनों की जानकारी चाही गई है उक्त के परिप्रेक्ष्य में चाही गई जानकारी कार्यालय को 07 दिवस में उपलब्ध कराने हेतु अनुरोध है।

यदि आपके द्वारा कोई भी मत संसूचित नहीं किया जाता है, तो यह माना जा सकता है कि परियोजना विस्तार से किसी भी प्रकार का प्रतिकूल प्रभाव नहीं पड़ रहा है।

o/c (संजीव मेहरा)
क्षेत्रीय अधिकारी

पृष्ठांक 639/क्षेका/प्रनिबो/शहडोल/2022

शहडोल, दिनांक 19/03/2022

प्रतिलिपि:-

1. मुख्य चिकित्सा एवं जिला स्वास्थ्य अधिकारी, (सी.एम.एच.ओ.) कार्यालय जिला-शहडोल (म.प्र.) की ओर कृपया उक्त के संबंध में उपरोक्तानुसार चाही गई जानकारी हेतु संबंधित अण्ड चिकित्सा अधिकारी को आपके स्तर से निर्देशित करने की आवश्यक कार्यवाही हेतु प्रेषित है।
2. याना प्रभारी, थाना-बुढार, जिला-शहडोल (म.प्र.) की ओर कृपया उक्त के संबंध में वर्णित अवधि में दुर्घटनों से पंजीबद्ध हुऐ प्रकरणों की उपरोक्तानुसार चाही गई जानकारी कार्यालय को अनिवार्य रूप से 07 दिवस के अन्दर उपलब्ध कराने हेतु अनुरोध है।

o/c (संजीव मेहरा)
क्षेत्रीय अधिकारी

क्षेत्रीय कार्यालय

मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड

बाई पास चौक गोरतरा, बुढार रोड, जिला शहडोल 484001 (म.प्र.)

Email: ropcbshahadol@gmail.com

आजादी का
अमृत महोत्सव

270

क्रमांक 1122/क्षेका/प्रनिबो/शहडोल/2022

शहडोल, दिनांक 13/12/2022

कार्यपालन यंत्री,
लोक स्वास्थ्य यांत्रिकी विभाग, शहडोल,
जिला-शहडोल (म.प्र.)

- विषय:- सरफा नाला से जल प्रदाय गुणवत्ता के संबंध में जानकारी बावत।
- संदर्भ:- माननीय राष्ट्रीय हरित अधिकरण प्रकरण ओ.ए.कमांक 6/2019 में पारित आदेश 28.03.2022 के परिपालनार्थ ।

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उपरोक्त विषयांतर्गत संदर्भ अनुसार माननीय राष्ट्रीय हरित अधिकरण में प्रचलित प्रकरण ओ.ए.कमांक 6/2019 में पारित आदेश 28.03.2022 के परिपालनार्थ पर्यावरण प्रभाव ऑकलन हेतु बहु विभागीय समिति का गठन किया गया है। मेसर्स एस.ई.सी.एल. खैरहा भूमिगत खदान (मैकेनाइज्ड) सोहागपुर (म.प्र.) के क्षमता विस्तार 0.585 एम.टी.पी.ए. से 0.819 एम.टी.पी.ए. उत्पादन होने से उत्पन्न होने वाले जल प्रवाहित होने से सरफा नाला के जल प्रदाय की गुणवत्ता के संबंध में स्पष्ट मत सहित जानकारी इस कार्यालय को 07 दिवस के अन्दर अनिवार्य रूप से प्रेषित करने का कष्ट करें।

यदि आपके द्वारा कोई भी मत संसूचित नहीं किया जाता है, तो यह माना जा सकता है कि परियोजना विस्तार से किसी भी प्रकार का प्रतिकूल प्रभाव नहीं पड़ रहा है।

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(संजीव मेहरा)
क्षेत्रीय अधिकारी

सालीक MPA प्रकाश ड्राफ्ट 06/2019 के समक्ष में रैडिये 23/06/2022 को गाम खैरहा एवं खन्नात- गाम कारीको के खैरहा इमिगन खदत के संयोजन के परामाण सम्बन्ध मन्-

क्षण-दिनांक 23/6/2022 को
क्षण-दिनांक MPA प्रकाश ड्राफ्ट 06/2019 के समक्ष में खैरहा इमिगन खदत में CPED के प्रतिनिधि, डा. सुनील कु. लीला, म.उ. निवेद के प्रतिनिधि श्री सलीम हुमायुन खैरहा एवं खदत प्रकाश की उपस्थित में खैरहा एवं खन्नात- गाम के निवासियों के साथ परामर्श एवं सहकारिये न होने वाले विपरीत प्रमाण के समक्ष में चर्चा की गयी गाम प्रतिनिधियों द्वारा निम्न किरीकत बताये गये।

- ① खन्नात गाम में मात्र इयास रेजाना 300 KL फिल्टर पानी उपलब्ध कराया जाता है, जिसे डि पानी की समस्या नहीं रही है।
- ② खदत प्रकाश द्वारा नियमित रूप से खदत करीब के अड्डा एवं आवागमन मार्गों न जल का छिड़काव किया जाता है।
- ③ ट्रैको के आवागमन का समय प्रायः 8:00 बजे से शाम 6:00 तक रहती है एवं गति सीमा 20 से 30 किमी प्रति घण्टा रहती है। ट्रैको के आवागमन से किसी भी प्रकार की दुर्घटनाएँ नहीं हुई है।
- ④ खदत से निकलने वाले ^{अपचायित} पानी की जगह जहाँ से खैरहा में फालत उत्पाद हेतु किया जाता है।

एन.जी.टी प्रकाश कुकठ 06/2019

दिनांक 23/06/2022 को खैरत भूमिगत खदान के आसपास
वांसी के काम बालियों के हस्ताक्षर

क्रमांक	नाम एवं काम का नाम बता	हस्ताक्षर
①	निर्मल पटेल जगदीश पटेल (बन्नाय)	निर्मल
②	सम्पन्न साहू रामस्वरूप साहू	
③	कपूर चंद्र पटेल पिता पुष्पराज पटेल बैरवनाथ	कपूर
④	सुबेन्द्र पटेल बैरवनाथ पिता सुलोक चंद्र	
⑤	राजेश्वर पटेल रामनाथ पिता गणेश प्रसाद पटेल	
⑥	राजेश्वर प्रसाद पटेल शंकर गोकुल पटेल (बन्नाय)	
⑦	सुरेश विपरी शंकर बैरवनाथ	
⑧	बिरेन्द्र पावनीचंद्र पिता सुप्रकाश सिंह	
⑨	सम्मारी पिता रामचन्द्र बैरव	
⑩	वल्लभरुद्र पाव भधकराव	वल्लभरुद्र
⑪	Sunil Kumar Meena, 'A' cat, cpcb, Bhopal	
⑫	Sarjeen Kumar Mehra, R.O. WPPCB,	

Dispatch Comparative Chart for month of May (Past 4 Years)

MONTH	ROAD SALE		BURHAR SIDING		OVERALL TOTAL DISPATCH			% Increase in triping capacity per truck in comparison to May-18
	TRIP	QTY.	TRIP	QTY.	TRIP	QTY.	Average transporting capacity per truck/trip	
May-18	452	10989.48	1966	47443.40	2418	58432.88	24.17	
May-19	950	27439.77	1419	35703.51	2369	63143.28	26.65	10.30
May-20	103	2786.73	1604	44924.00	1707	47710.73	27.95	15.66
May-21	1269	38229.00	850	21532.91	2119	59761.91	28.20	16.71
May-22	1393	43679.36	852	29114.38	2245	72793.74	32.42	34.18



कार्यालय नगरपालिका परिषद शहडोल, जिला शहडोल (म.प्र.)
Office of the Municipal Council Shahdol, Distt. Shahdol (M.P.)

D.D. Complex, Near Tagore Park
Shahdol, Distt. Shahdol - 484001
Email: cmcshahdol@mpirshah.gov.in,
Ph. No. 07652-245175 (O), 241015(F)

शहडोल, दिनांक 24/6/2022

क्र. 226/न.पा.श./2022

संजीव मेहरा,
क्षेत्रीय अधिकारी
म.प्र. प्रदूषण नियंत्रण बोर्ड,
जिला शहडोल म.प्र.

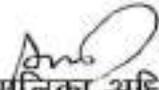
विषय:- सरफा नाला से जल प्रदाय गुणवत्ता के संबंध में जानकारी बावत।

संदर्भ:- आपका पत्र क्रमांक 631/क्षेका/प्रनिबो/शहडोल दिनांक 19.05.2022

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विषयांतर्गत संदर्भित पत्र से आपके द्वारा सरफा नाला से जल प्रदाय की गुणवत्ता के संबंध में जानकारी चाही गई है, जिसके संबंध में लेख है कि सरफा नाला में जल सोहागपुर क्षेत्र की खदानों से प्राप्त होती है, जिसकी गुणवत्ता संतोषजनक है।

यह जल सरफा डैम में एकत्रित कर शहडोल नगरीय क्षेत्र में प्रदाय किया जाता है एवं जल की गुणवत्ता के संबंध में आज दिनांक तक किसी भी प्रकार की समस्या इस कार्यालय के संज्ञान में नहीं आई है।

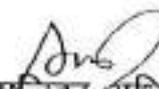

मुख्य नगरपालिका अधिकारी
नगरपालिका परिषद शहडोल
म.प्र.

शहडोल, दिनांक 24/6/2022

पृ.क्र. 226/न.पा.श./2022

प्रतिलिपि:-

1. उप क्षेत्रीय प्रबंधक, राजेन्द्र, खैरहा उपक्षेत्र की ओर सूचनार्थ।
2. प्रबंधक खैरहा भूमिगत खदान की ओर सूचनार्थ।


मुख्य नगरपालिका अधिकारी
नगरपालिका परिषद शहडोल
म.प्र.



कार्यालय नगरपालिका परिषद शहडोल, जिला शहडोल (म.प्र.)
Office of the Municipal Council Shahdol, Distt. Shahdol (M.P.)

D.D. Complex, Near Tagore Park
Shahdol, Distt. Shahdol - 484001
Email : cmshahdol@mpurban.gov.in,
Ph.No. 07652-245175 (O), 241015(F)

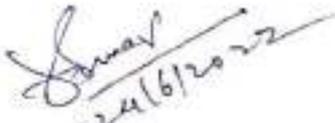
(A) OLD WATER TREATMENT PLANT

1.	DATE OF COMMISSIONING	YEAR 1975
2	CAPACITY	7.25 MLD
3	ALUM CONSUMPTION FOR THREE SHIFT	40 KG/ SHIFT 8HRS 40 X 3 = 120 KG
4	BLEACHING CONSUMPTION FOR THREE SHIFT	10 KG/SHIFT 8HRS 10 X 3 = 30 KG

(B) NEW WATER TREATMENT PLANT

1.	DATE OF COMMISSIONING	YEAR JANUARY 2019
2	CAPACITY	8.00 MLD
3	ALUM CONSUMPTION ONLY ONE SHIFT RUNNING	40 KG/ SHIFT 8HRS
4	BLEACHING CONSUMPTION ONLY ONE SHIFT RUNNING	10 KG/SHIFT 8HRS

water quality test report enclosed.


24/6/2022
उपपत्ति
नगरपालिका परिषद, शहडोल (म.प्र.)


मुख्य नगरपालिका अधिकारी
नगरपालिका परिषद, शहडोल (म.प्र.)

DISTRICT WATER TESTING LABORATORY

Public Health Engineering Deptt. Shahdol

DISTRICT - Shahdol
 Code No. _____

BLOCK - Sahyapuri VILLAGE
 Code No. _____

<u>300/10</u>

Particular of Sample

- (1) Date of Collection 16.8.2021
 (2) Date of Analysis 17.8.2021

SA No. & Details of Source & Location

- (i) 43 - Sarfa River water
 (ii) 44 - Settling tank
 (iii) 45 - Supply water

Ref. L. No. 2710/16.8.21
 From - Nagar Palika Parishad Shahdol m.p.

Table - 2.2 BIS Standard : Is - 10500-1991

S. No	Characteristics	Unit	Require Desirable Limit	Permissible limit in the absence of alternative source	Result		
					Sample No		
					43 44 45		
PHYSICAL TEST							
1	Turbidity	N.T.U.	5	10	13.7	0.20	0.31
2	Colour	hazen Units	5.0	25	5	0	0
3	Taste	-	Agreeable	-	Agreeable		
4	Odour	-	Unobjectionable	-	Unobjectionable		
CHEMICAL TEST							
4	PH	PH Scale	7.0 To 8.5	No relaxation	8.04	7.28	7.52
5	Conductivity	Micro Mhos/cm	-	-	498	459	459
6	Total Alkalinity	mg/l	200	600	136	140	140
7	Chlorides (As Cl)	mg/l	250	1000	36	44	40
8	Nitrates (As NO ₃)	mg/l	45	45	5	5	5
9	Total Hardness (As CaCO ₃)	mg/l	300	600	120	180	140
10	Total Dissolved Solids	mg/l	500	2000	296	308	308
11	Iron (As Fee)	mg/l	0.3	1.00	0.3	0.3	0.3
12	Fluorides (As F)	mg/l	1.00	1.5	0	0	0
13	Sulphates (As SO ₄)	mg/l	200	400	20	20	20
14	Residual Chlorine	mg/l	0.2	-	0	0	0
BACTERIOLOGICAL TEST							
15	Coliform Organisms at 37°C	M.P.N / 100ml	-	-	5	1	0

TESTED BY - Vinod Baypal Ramesh

REMARKS - _____

W/h
 Chemist
 Name & Signature
 Of Lab In Charge

DISTRICT WATER TESTING LABORATORY

Public Health Engineering Deptt. Shahdol

DISTRICT - Shahdol

BLOCK - Sahyapur VILLAGE - Surfa

<u>Surfa</u>

Code No. _____

Code No. _____

SA No. 3721-11 13.10.21

Particular of Sample

- (1) Date of Collection 13.10.21
 (2) Date of Analysis 13.10.21

SA No. & Details of Source & Location

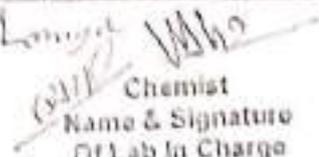
- (i) 57 - Surfa River - Raw water
 (ii) 58 - Sump Well water
 (iii) 59 - Filter water
 (iv) _____

Table - 2.2 BIS Standard : Is - 10500-1991

Result

S No.	Characteristics	Unit	Require Desirable Limit	Permissible limit in the absence of alternative source	Sample No.		
					57	58	59
PHYSICAL TEST							
1	Turbidity	N.T.U.	5	10	6.8	6.9	5.0
2	Colour	Hazen Units	5.0	25	0	0	0
3	Taste	-	Agreeable	-	Agreeable		
4	Odour	-	Unobjectionable	-	unobjectionable		
CHEMICAL TEST							
4	pH	PH Scale	7.0 To 8.5	No relaxation	7.5	7.5	7.5
5	Conductivity	Micro Mhos/cm	-	-	520	510	510
6	Total Alkalinity	mg/l	200	600	120	120	120
7	Chlorides (As Cl)	mg/l	250	1000	24	24	24
8	Nitrates (As NO ₃)	mg/l	45	45	0	0	0
9	Total Hardness (As CaCO ₃)	mg/l	300	600	190	200	156
10	Total Dissolved Solids	mg/l	500	2000	349	342	342
11	Iron (As Fe)	mg/l	0.3	1.00	0.3	0.3	0.3
12	Fluorides (As F)	mg/l	1.00	1.5	0.1	0.1	0.1
13	Sulphates (As SO ₄)	mg/l	200	400	28	30	30
14	Residual Chlorine	mg/l	0.2	-	0	0	0
BACTERIOLOGICAL TEST							
15	Coliform Organisms at 37°C	MPN / 100ml	-	-	0.3	0.2	NH

TESTED BY - Vinita Bajpai & Rom Naresb Kumar
 REMARKS - _____


 Chemist
 Name & Signature
 Of Lab in Charge



REGIONAL OFFICE
M. P. POLLUTION CONTROL BOARD
SHAHDOL -484001 ■ 07652 248938
Email-ropcbshahadol@gmail.com

1. Location of Sampling :- Filtration Plant Sarfa, Distt.- Shahdol (M.P.)
2. Description of sample: A. New Filtration Plant Treated water Sample Outlet (PHE Department)
B. Old Filtration Plant Treated water Sample Outlet (Nagar Palika)
3. Date of Sampling: - 24.06.2022
4. Date of Analysis: - 24.06.2022
5. Sample Collected By: - C.S.Patel (J.S.)
6. Sample Analysis By: - A.K.Sharma (Chemist)

S.No.	CHARACTERISTICS	UNIT	Sample Result-A	Sample Result-B
1	Appearance	-	Clear	Clear
2	(Lab)Temperature	O ^c	27.4	27.4
3	Colour	-	Colourless	Colourless
4	Odour	-	Odorless	Odorless
5	pH	pH Unit	7.68	7.57
6	Total Solids	Mg/l	281.0	293.0
7	Total Dissolved Solids	Mg/l	277.0	288.0
8	Total Suspended Solids	Mg/l	4.0	5.0
9	Total Hardness	Mg/l	156.0	164.0
10	Calcium Hardness	Mg/l	104.0	108.0
11	Magnesium Hardness	Mg/l	52.0	56.0
12	Chloride	Mg/l	21.99	25.99
13	Sp. Conductivity	μ mhos/cm	345.4	367.2
14	Turbidity	Mg/l	3.8	4.0
15	Alkalinity	Mg/l	68.0	72.0
16	Sulphate	Mg/l	16.0	16.0
17	Total Coliform	MPN/100 ml	<1.8	<1.8

A.K.S.
Chemist

[Signature]
Jr. Scientist

[Signature]
Lab-in charge

कार्यालय खण्ड चिकित्सा अधिकारी सामु0 स्वा0 केन्द्र बुढ़ार, जिला - शहडोल (म0प्र0)

क्रमांक/स्था0/2022/416

बुढ़ार, दिनांक :- 24/06/2022

प्रति,

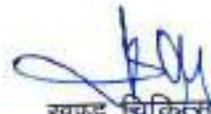
श्रीमान् क्षेत्रीय कार्यालय,
म0प्र0 प्रदूषण नियंत्रण बोर्ड
जिला - शहडोल (म0प्र0)

विषय:- वर्ष 2019 से अद्यतन स्थिती तक प्रभावित ग्रामवासियों के स्वास्थ्य संबंधी एवं ग्राम खैरहा से बुढ़ार मार्ग पर हुये दुर्घटनाओं के जानकारी के संबंध मे।

सन्दर्भ:- आपका पत्र क्रमांक/630/क्ष0का0/प्रनिबो/शहडोल/2022 दिनांक 09.05.2022

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उपरोक्त विषयान्तर्गत लेख है कि संदर्भित पत्र के द्वारा चाही गई जानकारी के संबंध में लेख है कि वर्ष 2019 से अद्यतन स्थिती तक खैरहा भूमिगत खदान के विस्तार से रहवासियों में ब्रोनकाईटिस, अस्थमा, श्रवण क्षमता में कमी आदि जैसी समस्या संज्ञान में नहीं आई है।


खण्ड चिकित्सा अधिकारी
सामुदायिक स्वास्थ्य केन्द्र बुढ़ार
जिला - शहडोल (म0प्र0)
बुढ़ार, दिनांक :- 24/06/2022

पृ.क्रमांक/स्था0/2022/417

प्रतिलिपि:-

1. मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी जिला शहडोल (म.प्र.) की ओर वास्ते सूचनार्थ।

C.H.C. BURHAR
DISTT - SHAHDOL (M.P.)


खण्ड चिकित्सा अधिकारी
सामुदायिक स्वास्थ्य केन्द्र बुढ़ार
जिला - शहडोल (म0प्र0)

कार्यालय

ग्राम पंचायत बोदरी

जनपद पंचायत सोहागपुर

पोस्ट- बोदरी तहसील- सोहागपुर, जिला शहडोल (म०प्र०)

पति

श्रीमान क्षेत्रीय अधिकारी

मध्य प्रदेश प्रदूषण नियंत्रण बोर्ड

क्षेत्रीय कार्यालय जिला शहडोल (म०प्र०)

विषय- खैरहा भूमिगत खदान के क्षमता विस्तारण उपरांत पर्यावरण पर प्रभाव के संबंध में।

संदर्भ: आपके कार्यालय का पत्र क्र० 831/क्षेका/प्रनिबो/शहडोल/2022 दिनांक: 05/06/2022

महोदय,

आपके संदर्भित पत्र के संबंध में लेख है कि एम.ई.सी.एल. के द्वारा सोहागपुर कॉल पट्टे में संचालित खैरहा भूमिगत मेकेनड्रेज्ड खदान कि उत्खनन क्षमता विस्तार 0.585 एमटीपीए से 0.819 एमटीपीए किए जाने परिप्रेक्ष्य में आपको अवगत करना चाहेंगे कि उक्त क्षमता विस्तार से न तो पंचायत को कोई आपत्ति है और न ही ग्राम पंचायत क्षेत्र में पर्यावरण पर किसी भी प्रकार का कोई प्रतिकूल प्रभाव हुआ है।


पंचायत सचिव
ग्राम पंचायत बोदरी

ग्राम पंचायत खैरहा
जनपद पंचायत सोहागपुर
पोस्ट आफिस-खैरहा जिला शहडोल म० प्र०

प्रति
क्षेत्रीय अधिकारी
मध्य प्रदेश प्रदूषण नियंत्रण बोर्ड
क्षेत्रीय कार्यालय जिला शहडोल (म० प्र०)

विषय- खैरहा भूमिगत खदान के क्षमता विस्तारण उपरांत पर्यावरण पर प्रभाव के संबंध में।
संदर्भ: आपके कार्यालय का पत्र क्र० 841/क्षेका/प्रनिबो/शहडोल/2022 दिनांक: 05/06/2022

आपके संदर्भित पत्र के संबंध में लेख है कि एस.ई.सी.एल. के द्वारा सोहागपुर कोल प्रक्षेत्र में संचालित खैरहा भूमिगत मेकेनइज्ड खदान कि उत्खनन क्षमता विस्तार 0.585 एमटीपीए से 0.819 एमटीपीए किए जाने परिप्रेक्ष्य में आपको अवगत करना चाहेंगे कि उक्त क्षमता विस्तार से हमारे ग्राम पंचायत क्षेत्र में पर्यावरण पर किसी भी प्रकार का कोई प्रतिकूल प्रभाव नहीं हुआ है


ग्राम पंचायत
सोहागपुर, जिला शहडोल

पंचायत सचिव
ग्राम पंचायत खैरहा

18/6/22

1 of 2 कार्यालय ग्राम पंचायत छिरिहटी

जनपद पंचायत सोहागपुर, जिला शहडोल (म०प्र०)

दिनांक: 18/06/2022

प्रति
क्षेत्रीय अधिकारी
मध्य प्रदेश प्रदूषण नियंत्रण बोर्ड
क्षेत्रीय कार्यालय जिला शहडोल (म०प्र०)

विषय- खैरहा भूमिगत खदान के क्षमता विस्तारण उपरांत पर्यावरण पर प्रभाव के संबंध में आपके कार्यालय का पत्र क्र० 843 /क्षेका/प्रनिबो/शहडोल/2022 दिनांक: 05/06/2022।

उपरोक्त विषयांतर्गत लेख है कि एस०ई०सी०एल० के अंतर्गत खैरहा भूमिगत मैकेनाइज्ड माइन के क्षमता विस्तार 0.585 एम०टी०पी०ए० से 0.819 एम०टी०पी०ए० किये जाने से हमारे पंचायत के अंतर्गत आने वाले क्षेत्र पर कोई प्रतिकूल प्रभाव नहीं हुआ है।

लक्ष्मी देवी
18/06/22
पंचायत सचिव
ग्राम पंचायत
छिरिहटी



कार्यालय कार्यपालन यंत्री, लोक स्वास्थ्य यांत्रिकी खण्ड शहडोल (म.प्र.)

फोन एवं फेक्स नं. 07652-240307 ई.मेल आईडी: cepheidshd@nic.in

क्रमांक 16857 तक. / का.यं. / लो.स्वा.यां. / खण्ड / 2022 शहडोल दिनांक 28/06/2022
प्रति.

संजीव मेहरा
क्षेत्रीय अधिकारी
म.प्र. प्रदूषण नियंत्रण बोर्ड
जिला शहडोल (म.प्र.)



विषय :- सरफा नाला से जल प्रदाय गुणवत्ता के संबंध में जानकारी वाकत।

संदर्भ :- आपका पत्र क्रमांक 633 दिनांक 19.05.2022

—00—

उपरोक्त विषय में लेख है कि सरफा नाला के जल का कोई उपयोग लोक स्वास्थ्य यांत्रिकी विभाग द्वारा नहीं किया जाता है। नगरपालिका शहडोल द्वारा सरफा नाला के जल का उपयोग किया जाता है।

जब जल प्रदाय गुणवत्ता के संबंध में किसी भी प्रकार की समस्या नगरपालिका शहडोल को नहीं है तो लोक स्वास्थ्य यांत्रिकी विभाग शहडोल को भी कोई आपत्ति नहीं है।


कार्यपालन यंत्री
लोक स्वास्थ्य यांत्रिकी
खण्ड शहडोल (म.प्र.)

VJ (BMP)
28/6/2022

Field Photographs in NGT Appeal No. 06/2019 (CZ) (I.A. No. 24/2019) In the matter of Budhsen Rathour Vs Union of India & Ors.



Coal transport from mine to bulker in covered conveyor belts. The tarpaulin covered truck.



Water sprinkling system on field



Mine water treatment facility



Sarfa Dam



Water pumped to filtration unit from Sarfa dam



Clariflocculator, settling chamber units of the treatment plant



Alum & Bleaching in use



Discussion with nearby villagers of the M/s Khairaha mine



Discussion with nearby villagers of the M/s Khairaha mine



Boundary wall of the Burhar Coal Siding



Ambient Air Quality Monitoring



Water sampling



Analysis of Samples collected by CPCB & MPPCB Team