



साउथ ईस्टर्न कोलफिल्ड्स लिमिटेड  
South Eastern Coalfields Limited

(कोल इंडिया का एक अंश/A Subsidiary Of Coal India Ltd)

कार्यालय:- महाप्रबंधक, दीपिका क्षेत्र

OFFICE OF THE GENERAL MANAGER, DIPKA AREA

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Ref. No: SECL/DA/ENVT/2019/

1500

Date: 31.05.2019

To,

Additional Principal Chief Conservator of Forests, IFS (Central),  
Ministry of Environment, Forest and Climate Change,  
Regional Office (WCZ),  
Ground Floor, East Wing,  
New Secretariat Building Civil Lines,  
Nagpur-440001

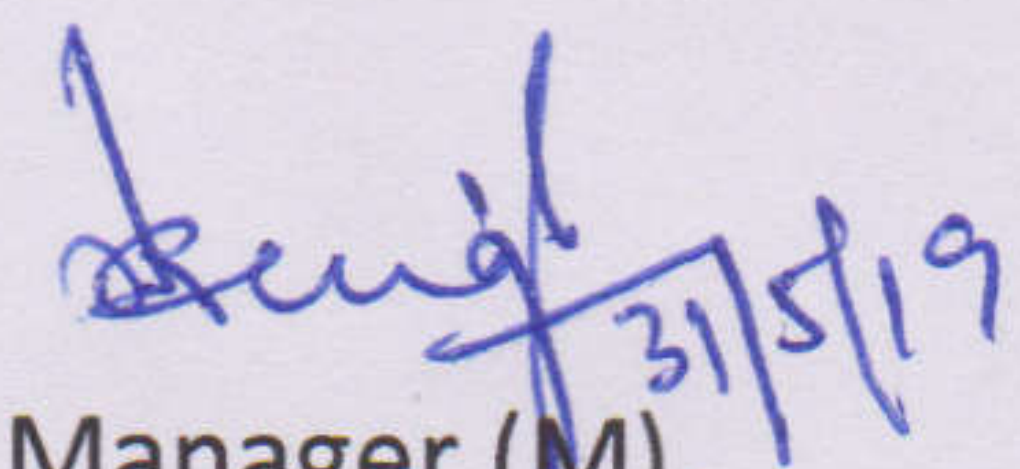
**Sub:-** Submission of six monthly (October 2018 to March 2019) EC compliance report of Dipka Expansion Project, Dipka Area, SECL.

Dear Sir,

Please find enclosed herewith the six monthly (October 2018 to March 2019) EC compliance report of Dipka Expansion Project, Dipka Area, SECL. This is for your kind information please.

Thanking You,

Yours faithfully,

  
General Manager (M),  
Dipka Expansion Project.

CC:

1. Member Secretary, CECB, Raipur: For kind information please
2. General Manager, Dipka Area, SECL: For kind information please
3. General Manager (Env/WBP), SECL Bilaspur: For kind information please
4. Regional Officer, CECB, Korba.
5. Nodal Officer (Env), Dipka Area, SECL.



**Six Monthly Report of Monitoring the Implementation of Environment Safeguards in  
Dipka Expansion Project, Dipka Area, SECL for the  
Period of October to March 2018-19.**

**PART-I**

**GENERAL PARTICULARS**

1.	Name of the Project	Dipka Expansion Project	
2.	No. & Date of MOEF Clearance letter.	20 MTY	J-11015/087/2003-IA-II(M), Dated- 04.10.2004
		25 MTY	J-11015/487/2007-IA-II(M), Dated- 03.06.2009
		30 MTY	J-11015/487/2007-IA-II(M), Dated- 12.02.2013
		31 MTY	J-11015/487/2007-IA-II(M), Dated- 06.02.2015
		35 MTY	J-11015/487/2007-IA-II(M)pt, Dated- 20.02.2018
		35 MTY	J-11015/487/2007-IA-II(M)pt, Dated- 20.03.2019
3.	Area involved in the Project & breakup purpose wise, if any	<b>As per EMP 35 MTY:</b>	
		Area involved	1999.293 Ha
		<b>Purpose wise land use breakup:</b>	
		Quarry area	1002.053 Ha
		External OB Dumps	206.000 Ha
		Road	4.000 Ha
		Green Belt	23.000 Ha
		Safety zone	130.366 Ha
		Infrastructure & other facilities	633.874 Ha
4.	Location of the Project	Gevra Road station is about 12 Km from the mine  District: Korba  State: Chhattisgarh	

**PART-II**

**PROJECT STATUS**

5.	Year	Coal production (in MT)	OBR Extracted (in MCum)
i.	2011-12	25.00	14.140
ii.	2012-13	29.13	15.311
iii.	2013-14	29.20	22.593
iv.	2014-15	31.00	28.970
v.	2015-16	31.00	28.428
vi.	2016-17	31.00	18.967
vii.	2017 -18	34.35	29.37
viii.	2018-19	35.00	19.15
6.	Total manpower civil amenities including free fuel distribution for labor force during construction Period		All the manpower in the project has been provided with LPG connection.
7.	Project cost original as per Project Report (25 MTY).		Rs.1843.48 Crores as per Environment clearance report 25 MTY June-2009.
	Project cost original as per Project scheme (35 MTY).		No additional cost to be incurred for 35 MTY expansion.
8.	Expenditure incurred for environmental safe guards during the FY 2018-19		Rs. 9,73,19,394.80
9.	Monitoring cell established Yes/No if any details		<ul style="list-style-type: none"><li>• There is a separate Environmental management cell both at the project and company headquarter level with suitable qualified personnel.</li><li>• At HQ level it is headed by GM (Env.), who is reporting to CMD through D(T/P&amp;P).</li><li>• At Dipka Area Environment Department is headed by Dy. GM (Env.), who is directly reporting to General Manager-Dipka Area.</li></ul>
10.	i. How regularly/quarterly/six Monthly progress reports are submitted to the ministry		i. Compliance reports are submitted bi-annually to MoEF, Nagpur.
	ii. Details of last report submitted		ii. Last compliance report was submitted for the period April to September 2018 vide our letter no: SECL/

		DA/ENVT/2018/1330, dated-19/11/2018.
11.	Firefighting system emergency plan details.	Central firefighting station is being maintained at Kusmunda about 17 Km away. Approved Mine Emergency Response Plan is available in the project.



**PART-III**

**REHABILITATION/RECLAMATION/RESTORATION PROGRAMME**

<b>S.No</b>	<b>Name of the village</b>	<b>Total PAF's</b>	<b>PAF's Shifted to R&amp;R site</b>	<b>PAF's to be shifted</b>
12.	Sirki	388	136	21
	Chainpur	385	92	01
	Suwabhondi	148	0	10
	Jhingatpur	134	65	03
	Beltikri	351	124	16
	Malgaon	284	13	72
	Jhabar	0	0	0
	Dipka	0	0	0
	Renki	0	0	0
	Ratiza	0	0	0
	Hardi Bazaar	Village Hardibazaar has been acquired but not under possession yet		
	Amgaon	R&R for this village will be carried out by Gevra OC project, SECL.		
<b>Total</b>	<b>1690</b>	<b>430</b>	<b>123</b>	
<i>* 1130 no. of PAF's has taken cash compensation in lieu of house plot.</i>				
13.	<b>Identified rehabilitation site</b>			
	<b>R&amp;R Site</b>	<b>Amenities</b>		<b>PAF's shifted</b>
	Nehru Nagar	School, Dispensary, Panchayat Bhawan, Park, Well, training center, hand pumps, Streets light, roads, ponds.		57
	Gandhi Nagar	School, Panchayat Bhawan, Dispensary, well, pond, hand pumps, internal roads, approach roads		136
	Vivekanand Nagar	School, Panchayat Bhawan, Dispensary, well, pond, internal approach roads		109
	Chainpur Batari			74
	Chainpur Nagar			54
	<b>Total</b>			<b>430</b>
14.	<b>No. of PAF's employed-</b> 1506 skilled/unskilled workers have been employed in this & other colliery of SECL.			



15.	<b>Year</b>	<b>O.B Extracted (in Million Cubic meter)</b>		
	2011-12	14.140		
	2012-13	15.311		
	2013-14	22.593		
	2014-15	28.970		
	2015-16	28.428		
	2016-17	18.967		
	2017 -18	29.370		
	2018-19	19.15		
16.	Location & total Area to be Reclaimed/restored	External Dump	Total area- 206.00 Ha	
			<i>Area utilized for dumping till 31.03.2019 is 204.26 Ha</i>	
		Internal Dump	Total area- 780.00 Ha	
			<i>Area utilized for dumping till 31.03.2019 is 227.66 Ha</i>	
		<b>Work completed (As on 31.03.2019)</b>		
		External Dump	Technical-204.26 Ha Biological-204.26 Ha	
		Internal Dump	Technical-187.00 Ha Biological-77.15 Ha	
16.	Plan for reclaiming the excavated Area/Quarry sites and borrow pits	The area de-coaled is being filled up with OB. After technical reclamation, plantation will be done on reclaimed area.		
17.	Financial allocation for the year 2018-19 for rehabilitation/ CD / CSR / reclamation / restoration	Nil. No CSR fund has been allotted yet for the FY 2018-19. The excess/ unspent amount of Rs. 2.66 crores allotted for the year FY 2012-13 will be utilized during the FY 2018-19.		
18.	The expenditure, for rehabilitation / reclamation / restoration / CD already incurred/future	Nil		



**PART-IV**

**POLLUTION CONTROL MEASURE**

20.	Facilities provided to collect Industrial waste water & sewage.	<p>i. Sewage water from colonies is being guided through sewage pipe line up till DETP, Gevra Area. This is a combined DETP facility for both Dipka Expansion Project &amp; Gevra Project.</p> <p>ii. Mine water is being guided through large sump before pumping it to Sedimentation Pond (Sirki Pond and the overflow to Chainpur pond) for sedimentation process before being discharged to natural streams.</p> <p>iii. In workshop the washed out water is allowed to pass through Primary Settling Tank and clear water overflows passes to Oil and Grease Trap for further treatment treated clear water is recycled for washing.</p>
21.	Quantity/day discharged industrial/ Colony waste water, point of discharged & Location map	<p>i. 840.00 KL/D approx. from residential colony of Dipka Area is sent to DETP, Gevra Project through gravity.</p> <p>ii. 9640.00 KLD (avg) in rainy season. (2018-19)</p> <p>iii. 0.0 KLD (avg) in non- rainy season. (2018-19)</p>
22.	Monitoring of treated effluent frequency, No. of sampling point. :-	<p>Done fortnightly Monitoring.</p> <p>Sampling stations- 04</p>
23.	Air quality analysis & its monitoring:- Frequency no. of monitoring station.	<p>Done twice in a week Monitoring</p> <p>Sampling stations- 08</p>
24.	Noise Pollution monitoring	<p>Done fortnightly Monitoring</p>



	station :-	sampling stations- 08
25.	Preventive measures for Air, Water & noise pollution:-	<p><b>A) <u>Air Pollution</u></b></p> <ul style="list-style-type: none"> <li>i. Fixed sprinklers has been installed on approximately 5.5 Km of coal transport road and is working satisfactory.</li> <li>ii. 5 no. 70KL water tanker and 03 no. 28 KL water tankers has been deployed on haul road, coal transport road and in CHP for suppression of dust emission.</li> <li>iii. 13 no. rain guns have been provided in Coal transportation road to curb the dust emission in CHP area.</li> <li>iv. Every year extensive plantation is being done both on plain and dump area by Chhattisgarh Van Vikas Nigam (a state government organization) and till FY 2018-19, a total of 19,40,382 no. of plants has been planted on OB and Non-OB dumps. For the year 2018-19, 1,08,560 no. of plants has been planted in and around the project covering an area of 36.01 Ha.</li> <li>v. Concreting of coal transport road from BSES chowk to Shramik chowk to Dipka police station chowk is being done and also concreting of road from Shramik chowk to Gandhinagar has been completed to avoid fugitive dust emission.</li> <li>vi. Mist spray and conventional system of spray has been installed in the feeder breaker of CHP.</li> <li>vii. Inpit belt conveyor system has been</li> </ul>



		<p>commissioned with mist spray systems and is working satisfactorily.</p> <p>viii. Mobile Water sprinkling on coal stock is practiced diligently.</p> <p>ix. Wetting of coal before handling in CHP during handling in CHP and finally in loading operations.</p> <p>x. The dust and mud accumulation along the haul road and service roads are periodically cleaned to curb fugitive dust emission.</p> <p>xi. Tarpaulin covered trucks.</p> <p>xii. Black topping of roads</p> <p>xiii. Controlled blasting</p> <p>xiv. Limiting the speed of the vehicles</p> <p>xv. CAAQMS has been installed/ commissioned on 18/01/2014 and is working satisfactorily.</p> <p>xvi. Adequate green belts has been developed in and around the Pragati nagar residential colony, office complexes etc.</p> <p>xvii. Surface miners deployment since 2009-10 has largely reduced the dust emission which was emitting through drilling, blasting and crushers.</p> <p>xviii. Approved type of internal combustion engines are being used in HEMM and silencer are also Provided. Maintenance of thick vegetation between Colony and Quarry.</p> <p><b>(B) Water Pollution</b></p> <p>i. The sedimentation ponds are provided for treating the mine water discharge. The treated</p>
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		<p>mine water is used for dust suppression activities. There are 02 sedimentation ponds namely Sirki and Chainpur. Pragati nagar pond acts as ground water recharge pond.</p> <ul style="list-style-type: none"><li>ii. Oil &amp; Grease trap of 110 KL capacity has been installed in workshop area for the treatment of effluent generated after washing the HEMM. The O&amp;G generated are treated through primary effluent treatment plant. The treated effluent is re-used for washing HEMM's in workshop.</li><li>iii. 3.2 km pucca catch drain has been constructed around dump no. 3 &amp; 5 to control soil erosion and water pollution. Regular de-siltation of drains is carried out before monsoon.</li><li>iv. Domestic effluent treatment plant of 3.00 MLD capacity has been constructed. The plant is combined with the Gevra project.</li><li>v. Storm water drains have been constructed in the office buildings and colony.</li><li>vi. Rainwater harvesting have been installed in the colony and office buildings. there are 51 RWH systems constructed in Dipka area</li><li>vii. Garland drains being made around the periphery of the quarry to drain off the rain water away from the workings in order to maintain surface water drainage.</li></ul>
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		<p><b>(C) Noise Pollution</b></p> <ul style="list-style-type: none"> <li>i. Every year extensive plantation is being done both on plain and dump area by Chhattisgarh van vikas nigam (a state government organization) and till 2018-19 about 19,40,382 no. of plant planted on approximately 753.53 Ha area. Reduced quantity of blasting has resulted in lower noise levels.</li> <li>ii. HEMM are fitted with silencers</li> <li>iii. Lined chutes in silo to reduce noise.</li> <li>iv. Surface miner deployed to eliminate coal crushing will reduce noise.</li> <li>v. Provision of ear muffs/ear plugs to workers subjected to noise level above recommended limits. Drill cabin is air conditioned and sound proof.</li> <li>vi. Regular monitoring of noise level of project area.</li> </ul>
26.	Financial allocation Capital/ Recurring	<ul style="list-style-type: none"> <li>• Capital Expenditure incurred for 2018-19 was Rs. 21.86 Crores.</li> </ul>

**PART-V**

**GREEN BELT AND AFFORESTATION**

27.	<b>No. of tree planted/species</b>			
	<b>Year</b>	<b>No. of tree/sapling planted</b>	<b>Species planted</b>	<b>Density</b>
	1997-98	101000	Neem, Karang, Bamboo, Siras, Teak, Guava etc	2500/Ha
	1998-99	100000	-do-	-do-
	1999-00	56000&7000 Grass beds	-do-	-do-
	2000-01	42550 &15000 Grass beds	-do-	-do-
	2001-02	64000 &7000 Grass beds	-do-	-do-
	2002-03	45000 & 6671 Grass beds	-do-	-do-
	2003-04	59000& 15000 Grass beds	-do-	-do-
	2004-05	100000&25000Grassbeds	-do-	-do-
	2005-06	34500 &10500 Grass beds	-do-	-do-
	2006-07	87000 & 30375 Grass beds	-do-	-do-
	2007-08	60500	-do-	-do-
	2008-09	66000	-do-	-do-
	2009-10	53000	-do-	-do-
	2010-11	200	-do-	-do-
	2011-12	13950	-do-	-do-
	2012-13	14000	-do-	-do-
	2013-14	106100	-do-	-do-
	2014-15	146250	-do-	-do-
2015-16	179000	-do-	-do-	
2016-17	42250	-do-	-do-	
2017-18	126722 & 20000 Grass beds	-do-	-do-	
	2018-19	108560 & 33812 Grass beds	-do- including 2750 no. of Sal species	-do-
28.	<b>Financial future allocation</b>		For the FY 2019-20, the capital allocation is 43.23 crores as per Budget estimate.	
29.	<b>Present condition of plant-</b> Healthy			



**COMPLIANCE STATUS OF THE CONDITIONS IMPOSED IN THE**  
**EC LETTER ISSUED VIDE NO. J 11015/487/2007-IA.II(M)PT DT. 20.02.2018 & 20.03.2019**  
**FOR EXPANSION OF DIPKA OPENCAST COAL MINE FROM 31 MTPA TO 35 MTPA ON 31.03.2019:**

No.	EC Conditions	Compliance Status
4. (i)	The environmental clearance for the proposed increase in capacity shall be valid up to 31 <sup>st</sup> March, 2019. Further continuance of the project shall be based on evaluation of the proposed control measures and its impact on the ambient air quality by the EAC in later half of the FY 2018-19.	Agreed Vide MoEF Letter No: J-11015/487/2007-IA-II(M)pt dated: 30.03.2019 EC for 35MTY has been accorded for a further period of one year, i.e upto 31 <sup>st</sup> March 2020. Copy of EC letter is attached as <i>Annexure-1</i> .
ii	To control the dust generation at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.	<ul style="list-style-type: none"> <li>• Effective dust suppression system including mist spray jet sprinklers have been provided in place of conventional perforated pipe sprinklers in all crusher and feeder breaker installations.</li> <li>• Mist spray dust suppression arrangement is also in operation at Ground bunker of all conveyor systems and in Feeder Breakers. <i>Fig-1</i>.</li> <li>• Detail is given at point No. 4.1 (c-i).</li> </ul>
iii	Mitigative measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions as presented before the Committee, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.	<ul style="list-style-type: none"> <li>• The system is supported by sufficient number of mobile water sprinklers on haul roads and transportation roads. 03 no. of 28 KL and 05 no. of 70KL capacity mobile water tankers are provided. <i>Fig-2</i>.</li> <li>• Further coal cutting by surface miners has eliminated conventional drilling &amp; blasting of coal. Surface miners have in-built jet spray sprinkler system to arrest the dust at source. <i>Fig-3</i>.</li> <li>• Long Range Fogging Machine has been received in April 19. It is in working condition and in use at Dipka OCP. For mechanized sweeping machines Work Order No. 151 dt. 27.12.18 has been issued. Machine is expected by June 2019 end and it will be made</li> </ul>

		<p>operational.</p> <ul style="list-style-type: none"> <li>• Wind barrier wall at Railway siding has been made on 6<sup>th</sup> Feb 2019, and Vertical greenery system will be carried out through CGRVVN during July-August 2019. However preparation of wind barrier wall with rails and GI sheets is in progress.</li> </ul>																								
iv	Efforts shall be made to explore the possibility of providing wind shield/breaker arrangement with creepers and climbers.	<ul style="list-style-type: none"> <li>• Wind barrier wall at Railway siding has been made on 6<sup>th</sup> Feb 2019 and the work of vertical greenery system will be carried out by CGRVVN, Korba.</li> <li>• However preparation of wind barrier wall with rails and GI sheets is in progress.</li> </ul>																								
v	Thick green belt of 50 m width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.	<ul style="list-style-type: none"> <li>• 25 m thick plantation (9375 no. of plants) has been planted along the road side for a length of 1500 m towards Dipka OCP side of diverted Hardi Bazar road near Sarai Singar has been completed.</li> <li>• 25 m thick plantation by Gevra OCP towards their side will be taken up during FY 2019-20 which will fulfill the condition of 50 m thick green belt.</li> </ul>																								
vi	Persons of nearby villages shall be given training for their livelihood and skill development.	<p>Training is being imparted on regular basis.</p> <p>Year wise details of training imparted is as follows:</p> <table border="1"> <thead> <tr> <th>DETAILS</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> </tr> </thead> <tbody> <tr> <td>PAP</td> <td>212</td> <td>220</td> <td>223</td> <td>213</td> <td>203</td> </tr> <tr> <td>CONTRACTUAL PERSONS</td> <td>176</td> <td>640</td> <td>446</td> <td>635</td> <td>1315</td> </tr> <tr> <td>TOTAL</td> <td>388</td> <td>860</td> <td>669</td> <td>848</td> <td>1518</td> </tr> </tbody> </table>	DETAILS	2014	2015	2016	2017	2018	PAP	212	220	223	213	203	CONTRACTUAL PERSONS	176	640	446	635	1315	TOTAL	388	860	669	848	1518
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vii	To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.	<p>Dispensary of Dipka Area organizes regular medical camps, at least once in six months to ensure health and welfare of nearby villages. Last camps happened during April and September of 2018.</p>																								
viii	The predominant Sal species in the forest	2750 no. of Sal species has been planted near																								



	area shall be protected, and in case of coal mining operations inevitable therein, compensatory afforestation of these species shall be carried out in consultation with State Forest Department.	the railway siding ground during the FY 2018-19.
ix	In view of the mining potential of the area and the pollution concerns, carrying capacity of the eco-system shall be studied through some expert agencies to assess optimal mining operations with minimal impact on ecosystem services.	Work order No. 26 dated 09.02.2019 has been issued to BHU for study regarding carrying capacity of eco-system for both Dipka & Gevra OCPs. The work has been started by the IIT(BHU) team on 20 <sup>th</sup> May. A copy of the work order is enclosed as <i>Annexure-2</i> .
x	A sustainable mining practice shall be developed in the mine, catering to attributes of ecological, societal and economical dimensions.	Agreed. Mining practices are as per the approved PR/ Scheme and EIA/EMP
<b>4.1</b>	<b>Generic Conditions:</b>	
<b>4.1(a)</b>	<b>Mining:</b>	
i	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.	Agreed
ii	No change in mining method i.e. OC to UG, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).	Agreed
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).	Agreed
iv	No mining 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.	Agreed

<b>4.1 (b) Land reclamation and water conservation</b>		
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 shall be submitted to Ministry of Environment, Forest and Climate Change/Regional Office (RO).	Land use & land reclamation status is being monitored by CMPDIL every year through satellite imagery & the report is regularly submitted to Regional office MOEF&CC, Nagpur. Copy of the same is available in SECL official website.
ii	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/Gol Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS.	<ul style="list-style-type: none"> <li>• For the compliance of this condition Work Order has been issued to The Director General, Chhattisgarh Council of Science &amp; Technology, Raipur, vide letter No. SECL/DA/ENVT/2018/1320 Dated 02.01.18.</li> <li>• As per the approved Mining Plan/EIA/EMP report there is no diversion of natural water courses.</li> <li>• All the mining activities are as per approved Mining Plan and as per the permission of DGMS.</li> </ul>
iii	The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. 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 27 <sup>th</sup> August, 2009 and subsequent amendments.	<ul style="list-style-type: none"> <li>• It will be complied during post-mining period.</li> <li>• Reclamation of OB dumps will be done as per the approved Mine Closure Plan.</li> </ul>
iv	The entire excavated area, backfilling, external OB dumping (including top soil) and	<p>Agreed.</p> <ul style="list-style-type: none"> <li>• The land use in Dipka project will be in</li> </ul>



	<p>afforestation plan shall be in conformity with the "during mining / post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the Ministry of Environment, Forest and Climate Change/Regional Office on six monthly basis.</p>	<p>conformity with "during mining / post mining" land-use pattern as per approved Mining Plan and the EIA/EMP submitted to this Ministry.</p> <ul style="list-style-type: none"> <li>• Six monthly EC compliance report is being regularly sent to MoEF&amp;CC, Regional Office, Nagpur.</li> </ul>
v	<p>The top soil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized for long. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilized with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office on six monthly basis.</p>	<ul style="list-style-type: none"> <li>• In West Section (Internal dump) of Dipka Expansion Project, an area of 12.00 Ha has been earmarked for the storage of top soil and the same is being stored at the earmarked site.</li> <li>• The top soil is being spread on the OB dump and plains during biological reclamation. The thickness of spread top soil ranges from 30-50 cm.</li> <li>• Backfilling and afforestation of excavated area will be in line with the approved Mine Closure Plan.</li> <li>• During the FY 2018-19, no top soil was generated as work is going on in already broken land. Till date, total top soil generated was 376300 cum.</li> </ul>
<b>4.1 (c) Emissions, effluents &amp; waste disposal:</b>		
i	<p>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<sub>10</sub>/PM<sub>2.5</sub>) 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</p>	<ul style="list-style-type: none"> <li>• Trucks are optimally loaded and vehicle used for transportation of coal outside the mine area are being covered with Tarpaulins <i>Fig-4</i>. <ul style="list-style-type: none"> <li>i. In addition to it, conventional perforated pipe method of spraying is installed in 9 no. of feeder breakers and mist spray systems in 3 no. of feeder breaker.</li> <li>ii. 172 no.s of mist spray systems are provided at CHP and 50 nos. are provided at Silo to arrest the coal dust emission.</li> <li>iii. 13 no. of rain guns has also been installed for effective dust suppression in coal</li> </ul> </li> </ul>

	prescribed by the Central/State Pollution Control Board.	<p>transportation road <i>Fig-5</i>.</p> <p>iv. 294 no. of fixed sprinklers has been deployed for 5.5 Km of coal transportation road to arrest fugitive dust emission <i>Fig-6</i>.</p> <p>v. Additionally, 05 no. of 70 KL, 03 no. of 28 KL and 03 no. of 09KL Mobile water tankers (contractual) have also been deployed for water sprinkling along the haul roads <i>Fig-2</i>.</p> <ul style="list-style-type: none"> <li>• The Ambient Air Quality parameters are in conformity to the norms prescribed by the Central/State Pollution Control Board. The Environment Monitoring Report of March 2019 is attached as <i>Annexure-3</i>.</li> </ul>
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.	<ul style="list-style-type: none"> <li>• Every year extensive plantations are being carried out on both plain and OB dump area by Chhattisgarh Van Vikas Nigam (a state government organization) <i>Fig-7</i>.</li> <li>• Till FY 2018-19, 1940382 no. of plant planted on approximately 753.53 Ha. <i>Annexure-4</i>.</li> <li>• 25 m thick plantation (9375 no. of plants) has been planted along the road side for a length of 1500 m towards Dipka OCP side of diverted Hardi Bazar road near Sarai Singar has been completed.</li> <li>• 25 m thick plantation by Gevra OCP towards their side will be taken up during FY 2019-20 which will fulfill the condition of 50 m thick green belt.</li> </ul>
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.	Agreed.
iv	Vehicular emissions shall be kept under	Being complied with.

	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.	Records are maintained at the auto-section and excavation dept of Dipka Area. One set of PUC certificate is being kept at the Env. Dept.
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.	<ul style="list-style-type: none"> <li>i. 9 no. of conventional perforated pipe method of spraying and 03 no. of mist spray systems has been installed in feeder breakers.</li> <li>ii. 172 no.s of mist spray systems are provided at CHP and 50 nos. are provided at Silo to arrest the coal dust emission.</li> <li>iii. 13 no. of rain guns has also been installed for effective dust suppression in coal transportation road.</li> <li>iv. 294 no. of fixed sprinklers has been deployed for 5.5 Km of coal transportation road to arrest fugitive dust emission.</li> <li>v. Surface miners have been deployed for Coal extraction which eliminates Conventional drilling &amp; blasting of coal seams.</li> <li>vi. The surface miner has inbuilt jet spray sprinkler system to suppress dust at the source of dust emission.</li> </ul>
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.	<ul style="list-style-type: none"> <li>i. In addition to it, conventional perforated pipe method of spraying is installed in 9 no. of feeder breakers and mist spray systems of 3 no. in feeder breaker.</li> <li>ii. 172 no.s of mist spray systems are provided at CHP and 50 nos. are provided at Silo to arrest the coal dust emission.</li> </ul>
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.	<ul style="list-style-type: none"> <li>• Approval from CGWA for withdrawal of ground water has been obtained vide letter no. CGWA/NOC/MIN/ORIG/2019/4890 date:. 14.03.2019, from Central ground water Authority, Ministry of water Resources Govt. of India. The Copy is attached as <i>Annexure 5</i>.</li> <li>• For mining operations, no additional tube-</li> </ul>



		<p>well/ground water abstraction structures, which deplete ground water, will be constructed.</p> <ul style="list-style-type: none"> <li>• Mine water obtained during extraction of coal &amp; Rainwater accumulated is utilized for industrial purposes.</li> <li>• Rain Water harvesting system has been installed at 08 locations close to the project. The structures augment the groundwater recharge.</li> </ul>
viii	<p>Catch/garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps &amp; 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 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 dump and adjacent field/habitation/water bodies.</p>	<p>i. The catch drains in the form of pucca and kachha drains have been constructed in all the areas of the mines. <i>Fig-8.</i></p> <p>ii. Additional catch drains for external dump have been constructed for 800 m during the year 2017-18.</p> <p>iii. Retaining wall/gabion wall of dimension 1m x 1m for 1.758 Km has been constructed at the toe of dead external Dump No. 03 and 1.628 Km of dimension 1m x 1m at Dump no.05 has been constructed and is fulfilling its purpose. <i>Fig-9.</i></p> <p>iv. The drains/ ponds are regularly de silted before onset of monsoon and maintained properly.</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</p>	<p>i. For treatment of effluent from CHP, Workshop etc. ETP (oil &amp; grease trap) of 110 KL capacity was commissioned on 01.05.2005 and is working satisfactorily. <i>Fig-10.</i></p>

	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.	ii. STP of 3.00 MLD Capacity of Dipka Expansion Project, Dipka Area has been combined with Gevra Project in Gevra Area. Approximately 840 KLD of domestic effluent of Dipka colony goes to the combined STP.
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.	<ul style="list-style-type: none"> <li>• Rain Water harvesting system has been installed in Pragati House, Dipka House, Recreation club, CGM Office, New C-Type and minors' quarter for ground water recharge. <i>Fig-11.</i></li> <li>• The extensive plantation inside the mine lease area also helps in effective recharge of ground water. <i>Fig-7.</i></li> <li>• The backfilled area is also systematically leveled and biologically reclaimed, this helps in reducing surface run off and improve infiltration capacity of soil.</li> <li>• Dipka project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine under CSR/CD.</li> </ul>
<b>4.1 (d)</b>	<b>Illumination, noise &amp; vibration</b>	
i	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & to its RO on six-monthly basis.	Agreed
ii	Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in blasting and drilling operations, operation of HMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness	<ul style="list-style-type: none"> <li>i. Adequate measures are being taken for control of noise levels below 85 dB(A) in the work environment.</li> <li>ii. Workers engaged in blasting and drilling operations, operation of HEMM, etc. have been provided with ear plug and dust mask as per requirement.</li> <li>iii. Awareness programme for the workers are</li> </ul>

	programme for users to be conducted. Progress in usage of such accessories to be monitored.	being conducted at regular intervals. The details of the personal protective equipments provided to the workers are given below:-												
		<table border="1"> <thead> <tr> <th><i>Year</i></th> <th><i>No. of ear plug provided</i></th> <th><i>No. of dust masks provided</i></th> </tr> </thead> <tbody> <tr> <td>2016-17</td> <td>1080</td> <td>860</td> </tr> <tr> <td>2017-18</td> <td>0</td> <td>0</td> </tr> <tr> <td>2018-19</td> <td>0</td> <td>0</td> </tr> </tbody> </table>	<i>Year</i>	<i>No. of ear plug provided</i>	<i>No. of dust masks provided</i>	2016-17	1080	860	2017-18	0	0	2018-19	0	0
<i>Year</i>	<i>No. of ear plug provided</i>	<i>No. of dust masks provided</i>												
2016-17	1080	860												
2017-18	0	0												
2018-19	0	0												
iii	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.	<p>i. Controlled blasting is done as per DGMS Stipulated rules and regulations. Surface miners have been deployed for Coal extraction which eliminates Conventional drilling &amp; blasting of coal seams.</p> <p>ii. To remove overburden layer over the coal seam, shock tube initiation system has been adopted in delay blasting, which is an advanced method of blasting operation which controls blast related vibrations and fly rock to a larger extent.</p> <p>iii. Blast monitoring is being done on a regular basis. The values of blast measured are in ppv and within limits.</p>												
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.	Noise level monitoring is being done by CMPDI on regular basis as per the prescribed guidelines and report in this regard is being submitted to the Ministry/RO on six-monthly basis. The report is enclosed as <i>Annexure-3</i> .												
<b>4.1 (e)</b>	<b>Occupational health &amp; safety</b>													
i	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%	Besides carrying out regular periodic health checkup of workers initially and in 5 years as per Mines Act and DGMS circulars, the workers above 45 years of age are subjected to health checkup in every 3 years. Health checkup for occupational diseases and hearing impairment are covered under periodic medical examination (PME). PME details are given below:-												
		<table border="1"> <thead> <tr> <th><i>Year</i></th> <th><i>Target</i></th> <th><i>Achievement</i></th> </tr> </thead> </table>	<i>Year</i>	<i>Target</i>	<i>Achievement</i>									
<i>Year</i>	<i>Target</i>	<i>Achievement</i>												



	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.	2017	Dept-564 Cont-170	Dept-545 Cont-180
		2018	Dept-564 Cont-170	Dept-564 Cont-37
		2019 (upto April)	Dept-564 Cont-170	Dept-124 Cont-0
ii	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.	Workers engaged in blasting and drilling operations, operation of HEMM etc have been provided with ear plug and dust mask. Awareness training to workers is conducted at regular intervals.		
iii	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.	Regular Skill training as per safety norms specified by DGMS is being provided to all workmen including the outsourcing employees to ensure high safety standards in mines. <i>Annexure-6.</i>		
<b>4.1 (f)</b>	<b>Ecosystem &amp; biodiversity conservation</b>			
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.	MoU has been established between Indian Council of Forestry Research and Education (ICFRE), Dehradun and Coal India Limited, Kolkata for the preparation of Wildlife Conservation plan. The draft final report was submitted by TFRI, Jabalpur and for final approval the report has been forwarded to GM (Env), SECL HQ.		
<b>4.1 (g)</b>	<b>Public hearing, R&amp;R &amp; CSR</b>			
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.	i. All the issues raised during public hearing have been resolved. ii. Rehabilitation & Resettlement is being done as per CIL's R&R Policy, 2012 and employment is being provided to PAP's as per approved norms.		
ii	The project proponent shall ensure the	• No CSR fund has been allotted yet for the FY		

	expenditure towards socio-economic development in and around the mine, in every financial year in pursuance of the Corporate Social Responsibility Policy as per the provisions under Section 135 of the Companies Act, 2013.	2018-19. The excess/ unspent amount of Rs. 2.66 crores allotted for the year FY 2012-13 will be utilized during the FY 2018-19. <ul style="list-style-type: none"> <li>• CSR funds are diverted to the Collector office, Korba and all CSR activities are implemented through the Collector Korba Office.</li> </ul>
iii	The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA.II (M) dt. 29.10.2014, 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 the part of mine lease areas or habitations and villages are surrounded by the mine lease area.	Being complied with.
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.	As per Land Use Pattern, no Grazing land is involved in core zone.
<b>4.1 (h)</b>	<b>Corporate environment responsibility</b>	
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.	Environment policy of the company has been displayed on company website.
ii	The hierarchical system or Administrative	Organisation structure has been provided in the

	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.	company website.
iii	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.	<ul style="list-style-type: none"> <li>• There is a separate Environmental management cell both at the project and company headquarter level with suitable qualified personnel.</li> <li>• At HQ level it is headed by GM (Env.), who is reporting to CMD through D (T/P&amp;P).</li> <li>• At Dipka Area Environment Department is headed by Dy. GM (Env.), who is directly reporting to GM, Dipka Area and a Dy.Manager (Env) works under DY.GM (Env).</li> </ul>
iv	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.	Year-wise expenditure of environment related works is being submitted in the six monthly reports to MoEF. For the FY 2018-19, the expenditure incurred for environment safeguards is Rs. 9,73,19,394.80
v	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Environmental audit is being done by CMPDIL and Environmental audit statement is being prepared every financial year and it is being submitted at CECB, Raipur and MoEF&CC, Nagpur. Third party Environmental audit was conducted by ICFRE –Dehradun during 2017-18.
<b>4.1 (i)</b>	<b>Statutory Obligations</b>	
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.	Agreed.
ii	This environmental clearance shall be subject	Agreed.



	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.	Consent to Operate for 35 MTY has been obtained from Chhattisgarh State Pollution Control Board vide letter No. letter No. 7320 dt. 28.01.2019. <i>Annexure- 7.</i>
iv	The project proponent shall obtain the necessary permission from the Central Ground Water Authority (CGWA).	Approval from CGWA for withdrawal of ground water has been obtained vide letter no. CGWA/NOC/MIN/ORIG/2019/4890 date:14.03.2019, from Central ground water Authority, Ministry of water Resources Govt. of India.
<b>4.1 (j)</b>	<b>Monitoring of Project</b>	
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 <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> . 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.	Eight ambient air quality monitoring stations have been established (four in buffer zone and four in core zone) based on the meteorological data, topographical features and in consultation with the State Pollution Control Board. The heavy metal data of air is being submitted regularly to CECB and also to MOEF&CC Nagpur at regular interval. <i>Annexure- 8.</i>
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	Eight ambient air quality monitoring stations have been established (four in buffer zone and four in core zone) based on the meteorological data and the readings are being submitted regularly to CECB and also to MoEF&CC Nagpur at regular interval.

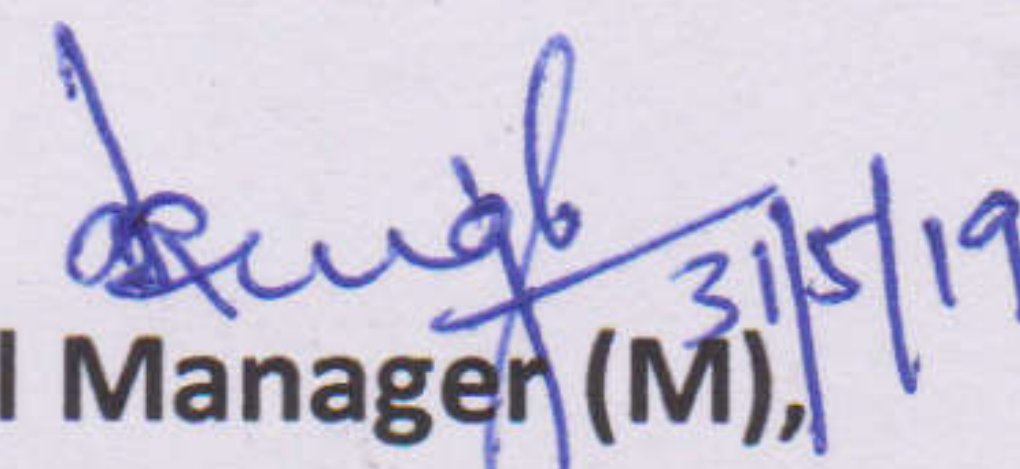
	CPCB/SPCB.	
iii	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.	Regular/ fortnight Monitoring done by CMPDI and reports sent to CECB at regular intervals.
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.	Agreed. Continuous Ambient Air Quality Monitoring Station has been installed at, Dipka Area and readings are regularly being monitored.
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.	04 Nos. of piezometers exist in the project and the readings are enclosed and 04 more has been proposed as per the report submitted by CMPDIL and it is under tendering stage. Regular monitoring is being done through Civil Deptt. The reading of piezometer for the last six month is given in <i>Annexure-9</i> .
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.	Regularly monthly monitoring is being done by CMPDI and report sent to CECB on regular basis.
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	Six monthly EC compliance reports are being sent to MoEF&CC-Nagpur Office and CECB regularly.

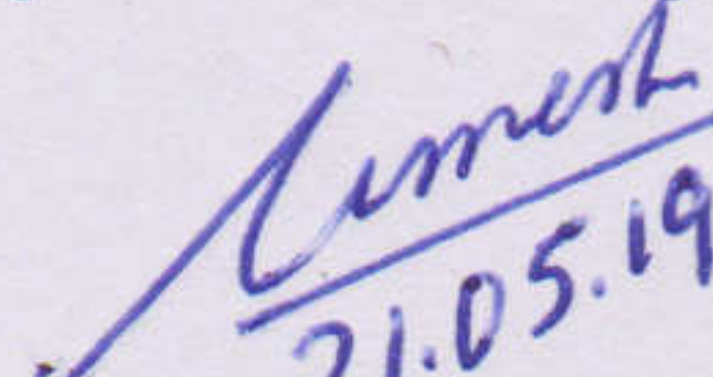
	monitored for the period of April to September and October to March of the financial years.	
viii	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Agreed
<b>4.1(k)</b>	<b>Miscellaneous</b>	
i	Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.	Agreed
ii	The project authorities shall inform to the Regional Office regarding commencement of mining operations.	Agreed
iii	A copy of the environmental clearance shall be marked to concern 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
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.	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, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control	Complied. Refer <a href="#">Annexure-10</a> .

	Board and also at web site of the Ministry of Environment, Forest and Climate Change at <a href="http://www.environmentclearance.nic.in">www.environmentclearance.nic.in</a> and a copy of the same shall be forwarded to the Regional Office.	
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 rose during public hearing.	Environmental Audit Statement is regularly submitted to CECB and MoEF-Nagpur Offices. The copy is enclosed as <i>Annexure-11</i> .
vii	The Ministry may stipulate any further condition for environmental protection, if so required in due course of time.	Agreed.
viii	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.	Agreed.
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.	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 stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.	Agreed.
7	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Agreed.
8	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.
9	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 2 <sup>nd</sup> 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.
10	The project proponent, without prejudice to this EC, shall be bound to comply with any other interpretation of the orders of Hon'ble Supreme Court also, in due course of time.	Agreed.
11	This EC supersedes the earlier EC granted vide letter No.J-11015/487/2007-IA.II (M) dated 06.02.2015 with a capacity 31 MTPA.	Agreed.

  
 General Manager (M),  
 Dipka Expansion Project, SECL.

  
 31.05.19



**Fig-1: Mist Sprinkler Arrangement at Feeder Breaker**



**Fig-2: Mobile Water Sprinklers**



**Fig-3 Surface Miner with sprinkler arrangement**



**Fig-4 Tarpaulin covered Trucks**



**Fig-11 Rain guns**



**Fig-6 Road side sprinklers**



**Fig-7 Plantation in the project**





**Fig-8 Catch Drain**



**Fig-9 Retaining wall**



**Fig-10 Effluent Treatment Plant**



**Fig-11 Rain water Harvesting Structures**





No.J-11015/487/2007-IA.II (M)pt  
Government of India  
Ministry of Environment, Forest and Climate Change  
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan,  
Jorbagh Road, N Delhi - 3  
Dated: 20<sup>th</sup> March, 2019

To,

The General Manager (W B P & Environment)  
M/s South Eastern Coalfields Ltd,  
W B P & Environment Department,  
Seepat Road, P B. No.60  
**Bilaspur - 495 006 (Chhattisgarh)**

Email: [gmenvtsecl@gmail.com](mailto:gmenvtsecl@gmail.com);

**Sub: Expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA of M/s South Eastern Coalfields Limited in District Korba (Chhattisgarh) - Environmental Clearance - reg.**

Sir,

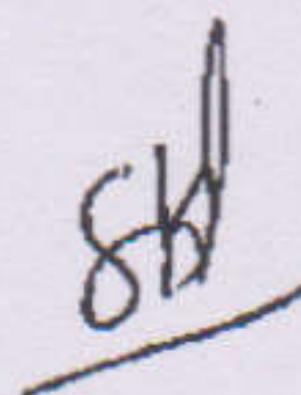
This has reference to your online proposal No.IA/CG/CMIN/9114/2012 dated 3<sup>rd</sup> January, 2019 on the above-mentioned subject.

2. The Ministry of Environment, Forest and Climate Change, vide letter dated 20<sup>th</sup> February, 2018, has granted environmental clearance to the expansion of Dipka Opencast Coal Mining Project from 31 to 35 MTPA in mine lease area of 1999.293 ha in District Korba (Chhattisgarh), subject to compliance of certain terms and conditions, which *inter-alia* included the following:-

*'The environmental clearance for the proposed increase in capacity shall be valid up to 31<sup>st</sup> March, 2019. Further continuance of the project shall be based on evaluation of the proposed control measures and its impact on the ambient air quality by the EAC in later half of the FY 2018-19.'*

3. In line with the above condition, site inspection was carried out by Ministry's Regional Office at Nagpur on 1<sup>st</sup> December, 2018 to monitor compliance status of the conditions stipulated in the said environmental clearance. The report in this regard has been forwarded by the Regional Office vide letter dated 19<sup>th</sup> January, 2019.

4. The proposal was considered by the sectoral Expert Appraisal Committee (EAC) in its meeting held on 21<sup>st</sup> February, 2019. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval for continuance of the **Dipka Opencast Coal Mining Project from 31 to 35 MTPA of M/s South Eastern Coalfields Limited** in mine lease area of 1999.293 ha located in District Korba (Chhattisgarh) **for a further period of one year**, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto, subject to review of compliance status of the conditions by the EAC to consider continuance of the project after one year.





5. All other terms and conditions stipulated in the said environmental clearance dated 20<sup>th</sup> February, 2019 shall remain unchanged.

  
(S. K. Srivastava)  
Scientist E

**Copy to:**

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Secretary, Department of Environment & Forests, Government of Chhattisgarh, Secretariat Raipur
3. The APCCF, Ministry of Environment, Forest and Climate Change, Regional Office (Western Central Zone), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur (Maharashtra)
4. The Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 32
6. The Member Secretary, Chhattisgarh State Environment Conservation Board, 1-Tilak Nagar, Shiv Mandir Chowk, Main Road, Avanti Vihar, Raipur - 492001 (Chhattisgarh)
7. The District Collector, Korba, Government of Chhattisgarh
8. Monitoring File 9. Guard File 10. Record File 11. Notice Board

  
(S. K. Srivastava)  
Scientist E



ENV  
4

ANNEXURE-2.

Registered Post

Under Jurisdiction of Bilaspur Court

साउथ ईस्टर्न कोलफील्ड्स लिमिटेड

मिनी रत्न कम्पनी  
(कोल इंडिया लिमिटेड का सहायक कम्पनी)  
सीपत रो, पी.बी. नं.60, बिलासपुर (छ.ग.) 495 006  
पर्यावरण विभाग



South Eastern Coalfields Limited

(A MINI RATNA COMPANY)

(A Subsidiary of Coal Indrias Ltd.)

Seepat Road, P.B. No.60, Bilaspur (C.G.) 495 006

Environment Department

CIN: U10102CT1985GO1003161

Tel. 07752 246324

Tele Fax 07752 246324

संदर्भ : एस.ई.सी.एल/बीएसपी/पर्यावरण/2019/26

Ref.No. SECL/BSP/ENV/ Carrying Capacity //2019/

दिनांक : 09 फरवरी 2019

Date: 09 February 2019

**WORK-ORDER**

To  
The Head of Department  
Department of Mining Engineering  
Indian Institute of Technology (BHU), Varanasi  
Varanasi, Uttar Pradesh-221005

Sub : Comprehensive Study for Dipka and Gevra OCPs regarding Carrying Capacity of the Eco-System to assess optimal mining operations with minimal impact on eco system Services.

Dear Sir,

With reference to above, the Competent Authority of SECL is pleased to place the Work Order to The Head of Department, Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi at the quoted rate of Rs.35,40,000.00 (Rupees Thirty Five Lakhs Forty Thousand only) including GST @18% with the following scope of work.

**SCOPE OF WORK :-**

"Mining potential of Dipka OCP and Gevra OCP of SECL area and pollution concerns, carrying capacity of the eco-system to assess optimal mining operations with minimal impact on ecosystem services". To comply EC conditions of Dipka OC & Gevra OC

**TERMS AND CONDITION:-**

- 50% payment of the total cost (including GST@18%) will be paid in advance from the day of commencement of the work. The work to be commenced within 10 days from the receipt of Work Order. Remaining 50% shall be paid by SECL within 30 days of acceptance of final reports
- Time period of study: 06 months (180) days from the date of issue of Work Order.
- Report submission: Interim Report within 60 days and final report within 180 days from the date of issue of work award. Final report has to be submitted (original print) 05(five) sets in hard and soft copy.

20/02/19  
CC: GMB (P)  
AF (P)  
12/02/19



- (d) The copy of work order duly accepted on its body shall be sent back as token of acceptance of the same.
- (e) The payment will be made through RTGS in the following account.
- (f) A/C Name: Head, Department of Mining Engineering, IIT (BHU), Varanasi, A/C No.:34923598941.
- (g) Name & Address of the bank: State Bank of India, Institute of Technology, BHU Branch, BHU Campus, Varanasi-221005
- (h) IFSC Code: SBIN0011445.
- (i) GST No.:09AAAJI0396RIZJ, PAN NO: AAJ0396R, TAN No: ALDI00594G.
- (j) IIT (BHU) will have to make their own arrangement for transportation of samples from Mine to IIT(BHU).
- (k) SECL shall arrange /provide local transportation within study area/ project site.
- (l) The Mine Management will provide local hospitality and accommodation in the nearby company guest house if available as per norms during field visit for execution of the project.
- (m) As IIT BHU, Varanasi is exempted from paying TDS, NO TDS deduction shall be made by the SECL against the payment of project cost subject to submission of exemption certificate issued by Income Tax department.
- (n) The Mine management shall provide requisite assistance and other logistic support for successful implementation of the project.

You are requested to contact GM of Gevra and Dipka Areas to start the work and its early completion.

Yours faithfully  
For & behalf of SECL

*G. S. Singh*  
9/2/19  
General Manager (Environment)  
South Eastern Coalfields Limited

Copy :

1. DT(P&P) : for kind information
2. GM CS/TS to CMD :
3. GM Dipka Area
4. GM, Gevra Area
5. GM,(F). BC No. Dipka -RV/Environ/221/02/902 for Rs.17,70,000.00 & Gevra /BC/GA/18-19/Pr/misc/ Evt. /322/04 dtd 07.02.19 for Rs 17,70,000.00
6. AFM, Gevra Area
7. AFM, Dipka Area.
8. Office Copy





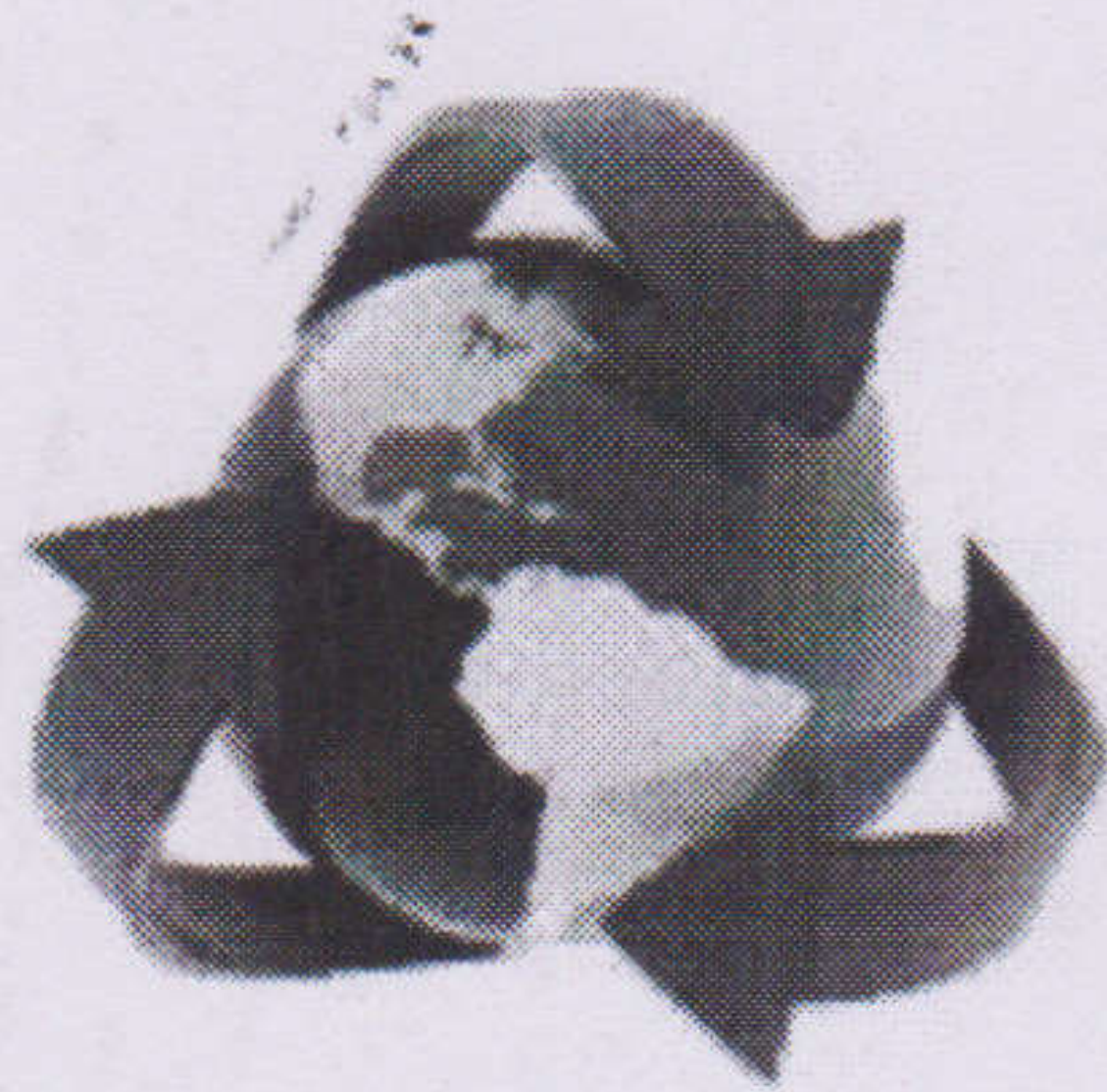
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## ENVIRONMENTAL MONITORING REPORT

**AIR, NOISE & EFFLUENT**

(DIPKA AREA)



**Environmental  
Monitoring**

**MARCH - 2019**

**SOUTH EASTERN COALFIELDS LIMITED**

*(A Mini Ratna Company)*

Central Mine Planning & Design Institute Limited  
Regional Institute – V, CMPDI Complex,  
BILASPUR (C.G.)



**ENVIRONMENTAL MONITORING REPORT**  
**DIPKA AREA- 'MARCH' 2019**

Sl.No.	CONTENTS	No. of samples	Page No.
	Name of Air Sampling Station		
1	Malgaon Village	9	1
2	Near Railway Siding	9	1
3	New Excv. Workshop	9	2
4	Pragati Nagar	9	2
5	Hardi Bazar	9	3
6	Batari	9	3
7	Jhabhar	9	4
8	Ratija	9	4
	<b>Total</b>	<b>72</b>	

Sl.No.	Name of Noise Sampling Station	No. of samples	Page No.
1	Malgaon Village	2	5
2	Near Railway Siding	2	5
3	New Excv. Workshop	2	5
4	Pragati Nagar	2	5
5	Hardi Bazar	2	5
6	Batari	2	5
7	Jhabhar	2	5
8	Ratija	2	5
	<b>Total</b>	<b>16</b>	



Sl.No.	Name of Effluent Sampling Station	No. of samples	Page No.
1	U/S of Lilagarh Nala before entering mining lease boundary	2	6
2	D/S of Lilagarh Nala after leaving mining lease boundary	2	6
3	Workshop Effluent	2	6
4	Mine Effluent after Settling	2	7
	<b>Total</b>	<b>8</b>	



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### AIR QUALITY REPORT

Month	MARCH	Area	DIPKA	Report No	KSM/2019/03/04			
Name of the Customer	South Eastern Coalfields Ltd, Bilaspur			Date of Issue	19.04.2019			
Name of the Project	DIPKA OC			Sample Reference No.	1-2			
Parameter	PM <sub>100</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>x</sub>	NO <sub>x</sub>	Remarks		
Limit (in $\mu\text{g}/\text{m}^3$ )-24 hrs	Industrial Zone -(G.S.R. 742(E), dated 25.9.2000)	A-O	600	300	-		120	120
		A-N	500	250	-		120	120
	Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996)	B	200	100	60		80	80
Method of analysis			IS-5182 PART 4:2005	IS-5182 PART 23:2006	CPCB Vol-I, 2013	IS-5182 PART 2:2001	IS-5182 PART 6:2006	
Uncertainty Range (in $\mu\text{g}/\text{m}^3$ )				±19.04		±0.0687	±0.4420	
Station Name (Code)	Station category	Date of sampling	Date of analysis					
1-Malgaon Village	B	01.03.2019	04.03.2019	222	116	58	40	43
		04.03.2019	07.03.2019	189	89	49	39	40
		07.03.2019	11.03.2019	192	93	52	38	35
		11.03.2019	14.03.2019	239	129	67	37	39
		14.03.2019	18.03.2019	193	95	51	36	37
		17.03.2019	19.03.2019	226	117	65	33	36
		19.03.2019	25.03.2019	190	94	50	37	35
		24.03.2019	28.03.2019	208	108	60	30	40
		28.03.2019	30.03.2019	188	91	53	35	34
2-Near Railway Siding	A-O	01.03.2019	03.03.2019	580	288	68	39	36
		03.03.2019	06.03.2019	590	292	55	38	38
		06.03.2019	08.03.2019	632	329	70	41	36
		08.03.2019	13.03.2019	592	290	56	45	40
		13.03.2019	15.03.2019	640	342	75	37	37
		15.03.2019	22.03.2019	540	294	58	41	35
		22.03.2019	25.03.2019	629	320	69	36	41
		24.03.2019	27.03.2019	590	291	59	34	39
		27.03.2019	30.03.2019	630	325	71	38	40

*Day*  
Analyzed by

*B. Soodhan*  
Checked by

*Anubha*  
Lab in charge

Note: 1) The results above relate to the samples tested.

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## AIR QUALITY REPORT

Month	MARCH	Area	DIPKA	Report No	KSM/2019/03/04			
Name of the Customer	South Eastern Coalfields Ltd, Bilaspur			Date of Issue	19.04.2019			
Name of the Project	DIPKA OC			Sample Reference No.	3-4			
Limit (in $\mu\text{g}/\text{m}^3$ -24 hrs)	Parameter		PM <sub>100</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>x</sub>	NO <sub>x</sub>	Remarks
	Industrial Zone -(G.S.R. 742(E), dated 25.9.2000)		A-O	600	300	-	120	
	Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996)		A-N	500	250	-	120	120
			B	200	100	60	80	80
Method of analysis			IS-5182 PART 4:2005	IS-5182 PART 23:2006	CPCB Vol- I, 2013	IS-5182 PART 2:2001	IS-5182 PART 6:2006	
Uncertainty Range (in $\mu\text{g}/\text{m}^3$ )				±19.04		±0.0687	±0.4420	
Station Name (Code)	Station category	Date of sampling	Date of analysis					
3-Near Excav. Workshop	A-O	01.03.2019	03.03.2019	620	316	68	37	33
		03.03.2019	06.03.2019	530	287	54	35	36
		06.03.2019	08.03.2019	629	321	65	36	37
		08.03.2019	13.03.2019	570	282	56	30	39
		13.03.2019	15.03.2019	593	308	68	38	32
		15.03.2019	22.03.2019	590	290	55	39	30
		22.03.2019	25.03.2019	632	334	75	31	36
		24.03.2019	27.03.2019	586	288	55	36	38
		27.03.2019	30.03.2019	625	320	71	38	35
4-Pragati Nagar	B	01.03.2019	03.03.2019	180	98	55	35	39
		03.03.2019	06.03.2019	195	96	50	37	36
		06.03.2019	08.03.2019	215	124	65	33	32
		08.03.2019	13.03.2019	196	98	52	38	43
		13.03.2019	15.03.2019	178	87	58	39	31
		15.03.2019	22.03.2019	190	90	49	36	38
		22.03.2019	25.03.2019	236	128	67	38	37
		24.03.2019	27.03.2019	193	92	51	39	35
		27.03.2019	30.03.2019	229	126	60	40	30

*Day*  
Analyzed by

*B. S. Saha*  
Checked by

*Anubale*  
Lab in charge

Note: 1) The results above relate to the samples tested.

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**AIR QUALITY REPORT**

Month	MARCH	Area	DIPKA	Report No.	KSM/2019/03/04			
Name of the Customer	South Eastern Coalfields Ltd, Bilaspur			Date of Issue	19.04.2019			
Name of the Project	DIPKA OC			Sample Reference No.	5-6			
Parameter	PM <sub>100</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>x</sub>	NO <sub>x</sub>	Remarks		
Limit (in $\mu\text{g}/\text{m}^3$ -24 hrs)	Industrial Zone -(G.S.R. 742(E), dated 25.9.2000)	A-O	600	300	-		120	120
		A-N	500	250	-		120	120
	Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996)	B	200	100	60		80	80
Method of analysis			IS-5182 PART 4:2005	IS-5182 PART 23:2006	CPCB Vol- I, 2013	IS-5182 PART 2:2001	IS-5182 PART 6:2006	
Uncertainty Range (in $\mu\text{g}/\text{m}^3$ )				±19.04		±0.0687	±0.4420	
Station Name (Code)	Station category	Date of sampling	Date of analysis					
5-Hardi Bazar	B	01.03.2019	04.03.2019	240	130	67	36	42
		04.03.2019	07.03.2019	193	95	55	43	32
		07.03.2019	11.03.2019	178	89	51	40	43
		11.03.2019	14.03.2019	196	96	56	38	34
		14.03.2019	18.03.2019	261	140	71	39	35
		17.03.2019	19.03.2019	195	97	54	35	36
		19.03.2019	25.03.2019	247	121	66	42	37
		24.03.2019	28.03.2019	190	92	52	38	40
		28.03.2019	30.03.2019	198	101	62	37	36
6-Batari	B	01.03.2019	04.03.2019	211	108	52	30	28
		04.03.2019	07.03.2019	188	89	46	29	33
		07.03.2019	11.03.2019	228	115	64	33	36
		11.03.2019	14.03.2019	186	91	52	35	30
		14.03.2019	18.03.2019	180	86	55	36	35
		17.03.2019	19.03.2019	223	112	62	31	37
		19.03.2019	25.03.2019	190	90	47	37	38
		24.03.2019	28.03.2019	186	86	44	34	29
		28.03.2019	30.03.2019	208	105	51	38	34

Analyzed by

Checked by

Lab in charge

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**AIR QUALITY REPORT**

Month	MARCH	Area	DIPKA	Report No	KSM/2019/03/04
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Name of the Customer	South Eastern Coalfields Ltd, Bilaspur	Date of Issue	19.04.2019
Name of the Project	DIPKA OC	Sample Reference No.	7-8

Parameter		PM <sub>100</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>x</sub>	NO <sub>x</sub>	Remarks	
Limit (in $\mu\text{g}/\text{m}^3$ )-24 hrs	Industrial Zone -(G.S.R. 742(E), dated 25.9.2000)	A-O	600	300	-	120		120
		A-N	500	250	-	120		120
	Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996)	B	200	100	60	80		80
Method of analysis		IS-5182 PART 4:2005	IS-5182 PART 23:2006	CPCB Vol- I, 2013	IS-5182 PART 2:2001	IS-5182 PART 6:2006		
Uncertainty Range (in $\mu\text{g}/\text{m}^3$ )			±19.04		±0.0687	±0.4420		
Station Name (Code)	Station category	Date of sampling	Date of analysis					
7-Jhabar	B	02.03.2019	05.03.2019	190	90	53	32	36
		05.03.2019	09.03.2019	230	126	68	35	32
		09.03.2019	12.03.2019	197	96	55	29	39
		12.03.2019	14.03.2019	180	94	55	31	38
		14.03.2019	18.03.2019	191	95	54	34	31
		18.03.2019	22.03.2019	232	127	69	37	35
		22.03.2019	26.03.2019	195	96	51	39	40
		26.03.2019	29.03.2019	239	125	66	38	37
		29.03.2019	01.04.2019	189	91	50	36	36
8-Ratija	B	02.03.2019	05.03.2019	188	94	54	39	36
		05.03.2019	09.03.2019	190	96	51	32	33
		09.03.2019	12.03.2019	231	120	67	38	39
		12.03.2019	14.03.2019	185	89	54	37	38
		14.03.2019	18.03.2019	238	131	69	35	35
		18.03.2019	22.03.2019	190	92	55	36	34
		22.03.2019	26.03.2019	219	108	54	31	36
		26.03.2019	29.03.2019	184	90	49	39	37
		29.03.2019	01.04.2019	194	104	58	32	35

*[Signature]*  
 Analyzed by

*[Signature]*  
 Checked by

*[Signature]*  
 Lab in charge

Note: 1) The results above relate to the samples tested.

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**NOISE QUALITY REPORT**

Month	MARCH	Area	DIPKA	Report No	KSM/2019/03/04
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Name of the Customer	South Eastern Coalfields Ltd, Bilaspur	Date of Issue	19.04.2019
Name of the Project	DIPKA OC	Sample Reference No.	N39-N46

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 (Code) Station Name	Station category	Date of measurement	Value in dB(A)	Value in dB(A)	
1-Malgaon Village	C	05.03.2019	40.4	38.4	
		23.03.2019	42.6	37.0	
2-Near Railway Siding	A	05.03.2019	39.4	45.1	
		23.03.2019	59.5	45.2	
3-New Excav. Workshop	A	05.03.2019	51.6	43.8	
		23.03.2019	60.6	49.1	
4-Pragati Nagar	C	05.03.2019	55.6	35.6	
		23.03.2019	44.2	36.6	
5-Hardi Bazar	C	05.03.2019	42.1	44.1	
		23.03.2019	45.6	43.7	
6-Batari	C	05.03.2019	37.6	40.1	
		23.03.2019	43.6	41.7	
7-Jhabar	C	05.03.2019	38.6	40.9	
		23.03.2019	43.9	43.7	
8-Ratija	C	05.03.2019	37.2	42.6	
		23.03.2019	43.2	40.4	

*[Signature]*  
 Analyzed by

*[Signature]*  
 Checked by

*[Signature]*  
 Lab In charge

Note: 1) The results above relate to the samples tested.

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**EFFLUENT WATER QUALITY REPORT**

Month	MARCH	Area	DIPKA	Report No	KSM/2019/03/04
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Name of the Customer	South Eastern Coalfields Ltd, Bilaspur		Date of Issue	19.04.2019
Name of the Project	DIPKA OCP		Date of Sampling	Date of Analysis
Name of Stations (Code)	1.	Up-stream of Lilagarh Nala before entering mining lease boundary	07.03.19	22.03 to 31.03.19
			18.03.19	02.04 to 11.04.19
	2.	Down-stream of Lilagarh Nala after leaving mining lease boundary.	07.03.19	22.03 to 31.03.19
			18.03.19	02.04 to 11.04.19
	3.	Work shop effluent.	07.03.19	22.03 to 31.03.19
			18.03.19	02.04 to 11.04.19

Sl. No	Parameter	Method of Analysis	Observed Value			Lower Detection Limit	General Standards for Discharge of Environmental Pollution (Part A: Effluent) as per Schedule VI, Environment (Protection) Rules	Uncertainty of Measurement (at 95% C.L & K= 1.96)
			Stations					
			1	2	3			
1	pH Value, LDL	IS 3025 (Part 11):1983, R : 1996, Electrometric Method	7.44	8.20	6.81	0.01	5.5 to 9.0	±0.8841821 at 4.025
			7.52	8.19	6.94			
2	Total suspended Solids, mg/l, max	IS 3025 (Part 17):1984, R: 1996, Gravimetric Method	<25.0	<25.0	66	25.0	100.0	±0.445mg/l at 24.429 mg/l
			<25.0	<25.0	71			
3	C.O.D, mg/l, max	APHA, 22 <sup>nd</sup> Edition, 5220B, open Reflux, Titration Method	<4.0	<4.0	44	4.0	250.0	0.61535782 at 16.2892 mg/l
			<4.0	<4.0	52			
4	Oil & Grease, mg/l, max	IS 3025 (Part 39):1991, R : 2003, Partition Gravimetric Method Thermometric	<2.0	<2.0	6.6	2.0	10.0	±0.207mg/l at 10.314mg/l
			<2.0	<2.0	10.2			

Analyzed by

Checked by

Lab In charge

Note: 1) The results above relate to the samples tested.

2) This report cannot be reproduced in part or full without the written permission of the HOD (Env), CMPDI Bilaspur, RI-V.

**CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED**

Environment Laboratory, Regional Institute-V,  
Phone: (07815) 271646, email: [rdri5.cmpdi@coalindia.in](mailto:rdri5.cmpdi@coalindia.in),  
website: [www.cmpdi.co.in](http://www.cmpdi.co.in)

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Company

**EFFLUENT WATER QUALITY REPORT**

Month	MARCH	Area	DIPKA	Report No	KSM/2019/03/04
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Name of the Customer	South Eastern Coalfields Ltd, Bilaspur	Date of Issue	19.04.2019	
Name of the Project	DIPKA OCP	Date of Sampling	Date of Analysis	
Name of Stations (Code)	4	Mines effluent after settling	07.03.19	22.03 to 31.03.19
			18.03.19	02.04 to 11.04.19

Sl. No	Parameter	Method of Analysis	Observed Value	Lower Detection Limit	General Standards for Discharge of Environmental Pollution (Part A: Effluent) as per Schedule VI, Environment (Protection) Rules	Uncertainty of Measurement (at 95% C.I & K= 1.96)
			Stations			
1	pH Value, LDL	IS 3025 (Part 11):1983, R : 1996, Electrometric Method	7.897	0.01	5.50 to 9.00	±0.8841821 at 4.025
			7.927			
2	Total suspended Solids, mg/l, max	IS 3025 (Part 17):1984, R: 1996, Gravimetric Method	<25.0	25.0	100.0	±0.445mg/l at 24.429 mg/l
			<25.0			
3	C.O.D, mg/l, max	APHA, 22 <sup>nd</sup> Edition, 5220B, open Reflux, Titration Method	<4.0	4.0	250.0	0.61535782 at 16.2892 mg/l
			<4.0			
4	Oil & Grease, mg/l, max	IS 3025 (Part 39):1991, R : 2003, Partition Gravimetric Method Thermometric	<2.0	2.0	10.0	±0.207mg/l at 10.314mg/l
			<2.0			

Analyzed by

Checked by

Lab In charge

Note: 1) The results above relate to the samples tested.

2) This report cannot be reproduced in part or full without the written permission of the HOD (Env), CMPDI Bilaspur, RI-V.



## Plantation Works done at Dipka OCP

Year	Plain	Avenue	Internal Dump		External Dump		Total dump	Total plantation	CPT (m)	Grass beds	Species Planted
			Dump No.	Plantation	Dump No.	Plantation					
1992	19000	0	-	0	0	0	0	19000	0	0	Neem, Karanj, Shishu, Bamboo, Cacia Samiya, Gulmohar, Kalasiras, Sathvan, Ganga Imli, Awla, Teak, Siras etc
1993	25800	0	-	0	-	0	0	25800	0	0	-do-
1994	10000	0	-	0	-	0	0	10000	0	0	-do-
1995	78500	6000	-	0	-	0	0	84500	0	0	-do-
1996	154000	16500	DN 4	22000	DN 6&7	3000	25000	195500	0	0	-do-
1997	101000	0	-	0	-	0	-	101000	0	0	-do-
1998	64400	20600	DN 4	7000	DN 3	8000	15000	100000	3406	0	-do-
1999	6675	21325	-	0	DN 3	28000	28000	56000	0	7000	-do-
2000	32550	0	DN 4	10000	-	0	10000	42550	0	15000	-do-
2001	0	0	DN 4	4000	-	60000	64000	64000	0	7000	-do-
2002	5000	0	DN 4	4000	DN 6&7	40000	40000	45000	423	6671	-do-
2003	7200	2800	DN 4	1000	DN 5	20000	49000	59000	330	15000	-do-
2004	16500	0	-	0	DN 1&2	45000	83500	100000	1700	25000	-do-
2005	24000	0	-	0	DN 3	3000	10500	34500	1688	10500	-do-
					DN 1&2	6500					
					Coal Stock Slope	4000					



<b>2006</b>	44500	0	-	0	DN 6&7	42500	42500	87000	1800	30375	-do-
<b>2007</b>	50500	10000	-	0	-	0	0	60500	3375	0	-do-
<b>2008</b>	66000	0	-	0	-	0	0	66000	1300	0	-do-
<b>2009</b>	23000	0	IDNFB	30000	-	0	30000	53000	0	0	-do-
<b>2010</b>	200	0	-	0	-	0	0	200	0	0	-do-
<b>2011</b>	0	0	IDNFB	9350	DN 1&2	4600	13950	13950	0	7000	-do-
<b>2012</b>	2375	0	-	0	DN 1& 2	11625	11625	14000	500	6000	-do-
<b>2013</b>	11000	0	IDNFB	16106	-	78994	95100	106100	2000	19500	-do-
					DN 1&2	30985					
					DN 6&7	48009					
<b>2014- 15</b>	47250	0	IDNFB	23000	-	76000	99000	146250	0	0	-do-
					DN 6&7	66500					
					DN 1&2	9500					
<b>2015- 16</b>	54000	0	-	0	-	125000	125000	179000	0	0	-do-
					DN 6&7	80000					
					DN 1&2	45000					
<b>2016- 17</b>	42250	0	-	0	-	0	-	42250	0	0	-do-
<b>2017- 18</b>	53272	0		54400	-	19050	73450	126722	5345	20000	
<b>2018- 19</b>	19350	0	IDNCS & IDNFB	30800	DN 6&7	58410	89210	108560	0	33812	-do- plus Sal species (2750 no.)
<b>Total</b>	<b>958322</b>	<b>77,225</b>	<b>-</b>	<b>211656</b>	<b>-</b>	<b>1091673</b>	<b>904835</b>	<b>1940382</b>	<b>21,867</b>	<b>202858</b>	<b>-</b>

Nodal Officer (Env)  
Dipka Area, SECL





Member (CGWA)

भारत सरकार  
केन्द्रीय भूमि जल प्राधिकरण  
जल संसाधन, नदी विकास  
और गंगा संरक्षण मंत्रालय

Government of India  
Central Ground Water Authority  
Ministry of Water Resources,  
River Development & Ganga Rejuvenation

File No: - 21-4/673/CT/MIN/2017 - 436

NOC No: - CGWA/NOC/MIN/ORIG/2019/4890

Date: - 14 MAR 2019

To

M/s South-Eastern Coalfields Limited,  
Dipka Expansion Project, Dipka Area,  
Post Dipka, Block Katghora, District Korba,  
Chhattisgarh - 495452

**Sub: - NOC for ground water withdrawal to M/s South-Eastern Coalfields Limited in respect of their existing Dipka Coal mining expansion project located at Dipka Area, Town Dipka (M), Block Katghora, District Korba, Chhattisgarh - reg.**

Refer to your application dated 28/12/2017 for grant of NOC for ground water withdrawal. Based on recommendation of Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur vide his letter dated 14/01/2019 and further deliberations on the subject, the NOC of Central Ground Water Authority is hereby accorded to **M/s South-Eastern Coalfields Limited in respect of their existing Dipka Coal mining expansion project located at Dipka Area, Town Dipka (M), Block Katghora, District Korba, Chhattisgarh.** This NOC is valid from 26/02/2019 to 25/02/2021 and is subjected to the followings conditions:-

1. The firm may abstract **3,15,360 cu.m/year** through four (4) existing & one (1) proposed tube wells and **20,02,755 cu.m/year** through dewatering the mine seepage through two (2) existing mine pits on account of mining intersecting the water table. The total withdrawal should not exceed **23,18,115 cu.m/year**. No additional dewatering and ground water abstraction structures shall be constructed for this purpose without prior approval of the CGWA. Any unexpected variation in inflow of ground water into the mine pit should be reported to the concerned Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur.
2. The tube wells as well as dewatering structures shall be fitted with digital water flow meter by the firm at its own cost and monitoring of monthly ground water abstraction data of each abstraction structure shall be recorded in a log book. Compliance to this condition shall be reported within one month from the date of issue of this letter.
3. **M/s South-Eastern Coalfields Limited**, in consultation with the Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur shall implement ground water recharge measures atleast to the tune of **26,39,320 cu.m/year** as proposed, for augmenting the ground water resources of the area. Firm shall report the compliance within six months from the date of issue of this letter. Firm shall also undertake periodic maintenance of recharge structures at its own cost.
4. The photographs of the recharge structures after completion of the same shall be furnished immediately to the Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur for verification under intimation to this office.
5. The firm, at its own cost, shall construct two (2) observation wells (piezometers) at suitable locations and install digital water level recorders along the periphery of the mine for monthly ground water level monitoring. The firm shall install telemetry system in one of the piezometers and share user ID and password of the telemetry system with the Regional

---

18/11, Jamnagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561, Fax: 23382051, 23386743

Website : [www.cgwa-noc.gov.in](http://www.cgwa-noc.gov.in)

स्वच्छ सुरक्षित जल - सुन्दर खुशहाल कल



Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur. Further, the firm shall execute ground water level monitoring four (4) times a year (January, May, August and November) in core and buffer zone by establishing sufficient number of key wells in consultation with the Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur.

6. The ground water quality shall be monitored once in a year (during pre-monsoon period).
7. The ground water monitoring data in respect of S. No. 2, 5 & 6 shall be submitted to the Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur on regular basis at least once in a year.
8. The firm shall ensure proper recycling and reuse of waste water after adequate treatment.
9. Action taken report in respect of S. No. 1 to 8 shall be submitted to CGWA within one year period.
10. This NOC is liable to be cancelled in case of non-compliance of any of the conditions as mentioned in S. No. 1 to 9.
11. The project proponent shall take all necessary measures to prevent contamination of groundwater in the premises failing which the firm shall be responsible for any consequences arising there upon.
12. This NOC is subject to prevailing Central/State Government rules/laws or Court orders related to construction of tubewell/ground water withdrawal/construction of recharge or conservation structure/discharge of effluents or any such matter as applicable.
13. The firm shall report self-compliance online in the website ([www.cgwa-noc.gov.in](http://www.cgwa-noc.gov.in)) within one year from the date of issue of this NOC.
14. This NOC does not absolve the applicant / proponent of this obligation / requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
15. The 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 be taking decisions independently of the NOC.

Member (CGWA)

**Copy to:**

1. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sector-19, Naya Raipur, Chhattisgarh.
2. Director I A III (V), Ministry of Environment, Forest & Climate Change I A Divison, 3<sup>rd</sup> floor, Vayu Block, Indira Paryavaran Bhawan, Jor Bagh Road, Aliganj, New Delhi – 110003.
3. The District Collector & Magistrate, District Korba, Chhattisgarh for necessary action.
4. The Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur. This has reference to your recommendation dated 14/01/2019.
5. Guard File 2018-19.

Member (CGWA)

## Annexure-6

Year	Departmental Employees				Contractual Employees			
	Basic Training		Refresher Training		Basic Training		Refresher Training	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
2014	-	11	207	212	-	176	-	-
2015	-	52	220	220	-	393	-	247
2016	-	14	223	220	-	420	-	26
2017	-	16	213	213	-	564	-	71
2018	-	13	203	203	-	1186	-	129
2019 Up to March 19	-	02	210	54	-	206	-	-





**CHHATTISGARH ENVIRONMENT CONSERVATION BOARD**  
**Paryavas Bhawan, North Block, Sector - 19,**  
**Atal Nagar, District - Raipur (C.G.)**  
**e-mail - hocecb@gmail.com**

No. **7320/TS/CECB/ 2019**

Atal Nagar, Raipur, Dated **28/01/2019**

To,

The Chief General Manager  
M/s Dipka Opencast Coal Mine,  
South Eastern Coal Fields Limited,  
Dipka Area, Tehsil-Katghora,  
**District - Korba (C.G)**

Sub: - Renewal of the consent of the Board under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981.

Ref: -

1. Consent of the Board issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 vide letter no. 6797/TS/CECB/2018, Raipur dated: 01/03/2018 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 6799/TS/CECB/2018, Raipur dated: 01/03/2018.
2. Your online application no. 1804802, dated 17/12/2018 and subsequent correspondence ending dated 07/01/2019.

--:: 00 ::--

With reference to your above application, consents under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 are hereby renewed for the period of **01/03/2019 to 28/02/2021**, subject to the fulfillment of the terms and conditions incorporated in the water consent letter no. **6797/TS/CECB/2018, Raipur dated: 01/03/2018** and air consent letter no. **6799/TS/CECB/2018, Raipur dated: 01/03/2018** and subsequent renewal(s)/amendment(s) issued by the Board and additional conditions mentioned below.

This renewal of consent is valid for production capacity of: -

<b>Product</b>	<b>Production Capacity</b>
Mining of Coal	35 Million Tonne/Annum (Thirty Five Million Tonne per Annum)



## **Additional Conditions**

### **A. Water (Prevention and Control of Pollution) Act, 1974**

1. Industry shall operate and maintain effluent treatment system regularly to meet prescribed standards all the time. No effluent shall be discharged outside of the factory premises in any circumstances; hence zero discharge condition outside the factory premises shall be maintained all the time.
2. Industry shall execute action plan for utilization of 25% fly ash in overburden stabilization and backfilling as per proposal submitted vide letter dated 17/02/2018 alongwith bank guarantee.
3. Industry shall comply the provisions of notification dated 03/11/2009 (Amended) regarding utilization of fly ash in over burden and back filling.
4. Industry shall transport the coal in mechanically covered vehicles to avoid dust emission during transportation.
5. This renewal of consent is being issued under the "Scheme of Auto-Renewal of Consent" of the Board issued vide office order no. 5937 dated 29/01/2018 as per self certificate submitted by authorized signatory Mr. Nilendu Kumar Singh, General Manager (Mining) of M/s Dipka Opencast Coal Mine, South Eastern Coal Fields Limited, Dipka Area, Tehsil-Katghora, District - Korba (C.G.).
6. Chhattisgarh Environment Conservation Board reserves the rights to revoke the consent / renewal of consent at any time for any violation/non-compliance.
7. Industry shall submit Environment Statement to this Board as per provision of Environment (Protection) Amendment Rule, 1993 for the previous year ending 31st March on or before 30th September every year.
8. Extensive tree plantation shall be carried out in the open areas available within and around the plant premises in the current monsoon season. Fruit bearing species like mango, tamarind, guava etc. shall be given preference in this regard.

### **B. Air (Prevention and Control of Pollution) Act, 1981**

1. Industry shall operate and maintain the air pollution control equipments properly. Industry shall ensure the emission quality meets the standards prescribed by the Board.
2. Industry shall execute action plan for utilization of 25% fly ash in overburden stabilization and backfilling as per proposal submitted vide letter dated 17/02/2018 alongwith bank guarantee.
3. Industry shall comply the provisions of notification dated 03/11/2009 (Amended) regarding utilization of fly ash in over burden and back filling.
4. Industry shall transport the coal in mechanically covered vehicles to avoid dust emission during transportation.



5. This renewal of consent is being issued under the "Scheme of Auto-Renewal of Consent" of the Board issued vide office order no. 5937 dated 29/01/2018 as per self certificate submitted by authorized signatory Mr. Nilendu Kumar Singh, General Manager (Mining) of M/s Dipka Opencast Coal Mine, South Eastern Coal Fields Limited, Dipka Area, Tehsil-Katghora, District - Korba (C.G.).
6. Chhattisgarh Environment Conservation Board reserves the rights to revoke the consent / renewal of consent at any time for any violation/non-compliance.
7. Industry shall submit Environment Statement to this Board as per provision of Environment (Protection) Amendment Rule, 1993 for the previous year ending 31st March on or before 30th September every year.
8. Extensive tree plantation shall be carried out in the open areas available within and around the plant premises in the current monsoon season. Fruit bearing species like mango, tamarind, guava etc. shall be given preference in this regard.

**Member Secretary**

Chhattisgarh Environment Conservation Board  
Atal Nagar, Raipur (C.G.)

Endt. No. **7321/TS/CECB/ 2019**

Atal Nagar, Raipur, Dated **28/01/2019**

Copy to: - Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board, Korba (C.G.). Please ensure compliance and report, if any condition/conditions are violated by the industry.

**Member Secretary**

Chhattisgarh Environment Conservation Board  
Atal Nagar, Raipur (C.G.)

Signature Not Verified

Digitally Signed by :Mr R P  
Tiwari MS

Date: 2019.02.04 20:24:47 IST







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# ENVIRONMENTAL MONITORING REPORT

## HEAVY METALS IN AIR



# *Environmental Monitoring*

FOR SECL MINES AS PER CONDITION STIPULATED IN THEIR EC

**January 2019 – June 2019**

(Part-I)

**SOUTH EASTERN COALFIELDS LIMITED**

*(A Mini Ratna Company)*

Central Mine Planning & Design Institute Limited  
Regional Institute – V, CMPDI Complex,  
BILASPUR (C.G.)



<b>Sl.No</b>	<b>Name of stations</b>	<b>Page no.</b>
<b>DIPKA AREA</b>		
<b>Dipka OC</b>		
1	Malgaon village	1
2	Near Railway siding	1
3	Near Excv. Workshop	1
4	Pragati Nagar	1
5	Hardi Bazar	1
6	Batari	1
7	Jhabhar	1
8	Ratija	1





**REPORT OF AMBIENT AIR QUALITY MONITORING  
 FOR HEAVY METALS  
 DIPKA AREA  
 FIRST HALF YEAR OF 2019**

**Report No**

<b>Name of the Customer</b>	South Eastern Coalfields Ltd, Bilaspur			<b>Date of issue</b>	22.04.2019		
<b>Name of the Project</b>	Dipka		<b>Sample Reference No.</b>	CMPDI/Q12/3541, Dated: 15.02.2019			
			<b>Date of Analysis</b>	16.02.2019 to 19.03.2019			
<b>Parameter</b>	<b>Arsenic (ng/m<sup>3</sup>)</b>	<b>Lead (µg/m<sup>3</sup>)</b>	<b>Nickel (ng/m<sup>3</sup>)</b>	<b>Total Chromium (µg/m<sup>3</sup>)</b>	<b>Cadmium (ng/m<sup>3</sup>)</b>	<b>Selenium (ng/m<sup>3</sup>)</b>	
<b>LDL</b>	1.0 ng/m <sup>3</sup>	0.01 µg/m <sup>3</sup>	1.0 ng/m <sup>3</sup>	1.0 ng/m <sup>3</sup>	1.0 ng/m <sup>3</sup>	1.0 ng/m <sup>3</sup>	
<b>Uncertainty of Measurement (95% C.L &amp; K=1.96)</b>	±0.818 ng/m <sup>3</sup> at 18.4 ng/m <sup>3</sup>	±1.185 µg/m <sup>3</sup> at 51.034 µg/m <sup>3</sup>	±0.146 ng/m <sup>3</sup> at 9.917 ng/m <sup>3</sup>	±0.146 ng/m <sup>3</sup> at 9.917 ng/m <sup>3</sup>	±0.146 ng/m <sup>3</sup> at 9.917 ng/m <sup>3</sup>	±0.818 ng/m <sup>3</sup> at 18.4 ng/m <sup>3</sup>	
<b>Method of Analysis</b>	USEPA Method IO-3.2	USEPA Method IO-3.2	USEPA Method IO-3.2	USEPA Method IO-3.2	USEPA Method IO-3.2	USEPA Method IO-3.2	
<b>National Ambient Air Quality Standard (NAAQS), 2009 (For (a) industrial, residential, rural &amp; other area (b) Ecologically sensitive area as notified by Central Govt.)</b>	06 (ng/m <sup>3</sup> )	1.0 (µg/m <sup>3</sup> )	20 (ng/m <sup>3</sup> )	---	---	---	
<b>Name of the Station</b>	<b>Date of Sampling</b>	<b>Observed Value</b>					
1. Malgaon Village	02.02.2019	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>
2. Near Railway siding	01.02.2019	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>
3. Near Excv.Workshop	01.02.2019	<b>BDL</b>	<b>0.10</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>
4. Pragati Nagar	01.02.2019	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>
5. Hardi Bazar	02.02.2019	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>
6. Batari	02.02.2019	<b>BDL</b>	<b>0.06</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>
7. Jhabhar	03.02.2019	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>
8. Ratija	03.02.2019	<b>BDL</b>	<b>0.07</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>

*S.K.Singh*

S.K.Singh  
Jr.Sc.Asst

*K.K.Dhirhi*

K.K.Dhirhi  
Lab Incharge

*M.Reagan Singh*

M. Reagan Singh  
Lab Co-ordinator

**Note:** 1) The results above relate to the samples tested as received.  
 2) This report can not be reproduced in part or full without the written permission of the HOD (Env), CMPDI, RI-V.

● **LDL** indicates Lower Detection Limit  
 ● **BDL** indicates Below Detection Limit



**Annexure-9**

<b>Details of Piezometers &amp; its Locations</b>				
<b>Year 2018-19</b>	<b>Pragati Nagar-Sneh Milan</b>		<b>CGM Office</b>	
	<b>Shallow (m)</b>	<b>Deep (m)</b>	<b>Shallow (m)</b>	<b>Deep (m)</b>
October 2018	2.70	17.50	4.80	8.40
November 2018	3.10	18.10	6.20	10.80
December 2018	3.30	18.90	6.60	11.00
January 2019	3.40	19.10	6.80	11.10
February 2019	3.30	19.10	7.10	8.60
March 2019	3.00	19.70	7.30	9.00
April 2019	3.80	21.90	8.00	10.70
May 2019	4.20	23.20	8.70	11.10













# ENVIRONMENTAL AUDIT STATEMENT

For

## DIPKA OPEN CAST PROJECT

Under

(DIPKA AREA)

**South Eastern Coalfields Limited**

*(A Mini Ratna Company)*

**Year of establishment - 2006**

**Capacity of Mine - 35.00 MTPA**

**Project Area - 1999.417 Ha.**

**Central Mine Planning & Design Institute Limited**

**Regional Institute – V**

**SECL Complex, Post Box No. 22**

**BILASPUR (C.G.)**



# ENVIRONMENTAL AUDIT STATEMENT (2017 – 18)

## DIPKA OPEN CAST PROJECT

### CHAPTER-I

#### TABLE-1.1

#### 1.0 General Information

a) Extractable Reserves (01.04.2018)	:	293.84 MT
b) Target output & grade of coal (18-19)	:	Target - 35.00 Million Ton. Achieved-34.35 Million Ton. “E”&“F” grade.
c) Seams Worked	:	Lower and Upper Kusmunda seam
d) Thickness of Seam Worked (in m)	:	Upper Kusmunda – 24.69 m -35.82 m Lower Kusmunda (Top): 34.70 m - 44.85 m Lower Kusmunda (bottom)-2.19m–24.50 m
e) Depth of Seams from the Surface	:	
i) Minimum	:	50m
ii) Maximum	:	160m
f) Av. Stripping ratio mining purpose	:	1: 1
g) No. of villages/families	:	1600 nos. approx. for 31.00 MTY
h) i) Mining area (in Ha.)	:	1002.053 Ha.
ii) Leasehold area other Mining purpose (in Ha.)	:	997.364 Ha
iii) Total leasehold area.(in Ha.)	:	1999.417 Ha



**1.1 Brief Geology of Mine:** The Upper Kusmunda seam is at a shallow depth of alluvium, Coarse-grained sand stone with carbonaceous shale. The parting consists of coarse to medium grained sand stone and shale. The general strike of the strata is E.W with certain swing towards NW-SE at places. The normal dip of the strata is about 1 in 11.5 towards south. Three sets of faults have been established in lease hold area of the project.

**1.2 Mining Method Description:** The overburden is being removed by shovel and dumper combination 42 cu.m shovel and 240 T Rear dumpers, 10 cu.m shovel with 120 T and 100 T Rear dumpers are deployed in O.B. Coal winning is done by Surface Miners. Wherever practical difficulties arise (like hard band) coal and OB are removed by conventional drilling and blasting. Tippers and pay loaders have been deployed on coal benches. Feeder breaker, In-pit Crusher & belt conveyor system is used to load into tippers.

**1.3 Present Status of The Mine:**

**1. Production Figures (in Million tons):**

YEAR	COAL	OB
2013 – 14	29.13 MTY	22.59 Mm <sup>3</sup>
2014 – 15	29.20 MTY	18.97 Mm <sup>3</sup>
2015 – 16	31.00MTY	28.43 Mm <sup>3</sup>
2016 – 17	31.00 MTY	28.00 Mm <sup>3</sup>
2017 – 18	34.35 MTY	29.37 Mm <sup>3</sup>
<b>2018-19(Target)</b>	35.00 MTY	37.00 Mm <sup>3</sup>

**2. No. of Inclines (Running) :** NA

**3. Shafts :** NA

**4. No. of quarries :** 01

**5. Overburden :** Number of External Dump- 03 no.  
Number of Internal Dump- 02 no.

**6. Main Consumers :** Power plants

**7. Mode of dispatch :** Silo, Rail & Road



**CHAPTER-II**

**FORM-V**

**(See rule 14)**

**Environmental Statement for the Financial Year Ending**

**31<sup>st</sup> March 2018**

**PART-A**

- i) Name and address of the mine** : Dipka Expansion Project, Dipka Area,  
Pragati Nagar, Post-Dipka,  
District- Korba (C.G.).
- ii) Industry category Primary  
(SIC Code) or Secondary  
(SIC Code)** : Primary
- iii) Production capacity units** : 1996 (for 10.00 MTY),  
2001-02 for 20.00 MTY  
2009-10 for 25.00 MTY  
2012-13 for 30.00 MTY  
2014-15 for 31.00MTY  
2017-18 for 35.00 MTY
- iv) Year of establishment** : 1<sup>st</sup> July, 2006
- v) Date of the last environmental  
Statement Submitted.** : September 2017



## PART-B

### Water and Raw Materials Consumption:

#### (i) Water Consumption (KLD)

**Industrial** - Rainy Season - 2346.87 KLD  
 Non-Rainy Season- 3233.59 KLD

**Domestic** - 1050 KLD

Name of Products	Process water consumption per product output	
	During the previous financial year 2016-17	During the current financial year 2017-18
Coal	Water is not required during coal production	

#### (ii) Raw materials consumption:

*Name of raw materials	Name of products	Consumption of raw material per unit of output	
		During the previous financial year 2016-17	During the current financial year 2017-18
Explosive	Coal	0.260 kg/tonne	0.260 kg/tonne
P.O.L	Coal	0.459 L/tonne	0.360 L/tonne

\*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw materials used.

## PART-C

### POLLUTANT DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT

(Parameters as specified in the consent issued)

Pollutants (Including mine & colony discharge of water)	Quantity of pollutants discharged KLD	Concentrations of pollutants in discharge KLD	Percentage of variation from prescribed standards with reasons
<b>Air</b>	Not quantified	Within permissible limit	Within permissible limit
<b>Water</b>			
1. Mine water pumped out 2. Industrial water discharged 3. Colony water discharged)	9641.61 KL Nil 840 KLD		
<b>Noise</b>	Not quantified		

**Conclusion:** As per the environmental monitoring of air, water and noise report of mine, the discharge pollutant concentrations are well within the permissible limit as per coal mine standards.



**PART-D**

**(Hazardous Wastes)**

**(As specified under Hazardous Wastes/Management Handling Rule, 1989)**

Hazardous Wastes	Total quantity (Kg)	
	During the previous financial year 2016-17	During the current financial year 2017-18
From Process	• Used/burnt oil- 150790.77 L	• Used/burnt oil- 396298 L
	• Used oil waste filters-5905 no. (i.e., 10333.40 Kg)	• Used oil waste filters - 6470 no. (i.e., 11350 Kg)
From Pollution control facilities	• Waste oil- 360 L	• Waste oil- 324 L

Neither liquid nor solid hazardous wastes are generated during underground coal mining.

**PART-E**

**SOLID WASTES**

Removal of overburden	Total quantity	
	During the previous financial year 2016-17	During the current financial year 2017-18
<b>Total O.B.</b>	18.945 Mm <sup>3</sup>	29.37 Mm <sup>3</sup>
<b>Total O.B. For back filling</b>	9.213 Mm <sup>3</sup>	29.37 Mm <sup>3</sup>
<b>Total O.B. disposed</b>	Nil	Nil

**PART-F**

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Description	Qty. MT/Year (17-18)	Collection Method
Steel Scrap	90.00 MT	Deposited by different user dept. and sent to recyclers through auction.
Copper Scrap	-	-
Aluminium Scrap	-	-
Used/burnt Oil	157500 L	Deposited by different user dept. and sent to recyclers through auction.



## PART-G

### Impact of the pollution abatement measure taken on conservation of natural resources and on the cost of production.

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I.	Air Pollution Control Measures
1.	Fixed sprinklers have been installed on approximately 5.5 km of coal transport road.
2.	5 no. of 70KL and 04 no. of 28 KL mobile water tanker have been deployed on haul road, coal transport road and in CHP for suppression of dust emission.
3.	13 no. rain guns have been provided in coal transportation road to curb the dust emission in CHP area.
4.	Every year extensive plantations are being carried out on both plain and dump area by Chhattisgarh Van Vikas Nigam (a state government organization). Till FY 2017-18, 18,31,822 no. of plant planted on approximately 732.73 Ha.
5.	Concreting of coal transport road from BSES chowk to Shramik chowk to Dipka police station chowk and also concreting of road from Shramik chowk to Gandhinagar is being done to avoid fugitive dust emission.
6.	Mist spray & conventional system of spray has been installed in CHP, transfer points, along the conveyor belts, truck receiving station etc.
7.	Mobile water sprinkling on coal stock is practiced diligently.
8.	The dust and mud accumulation along the haul road and service roads are periodically cleaned to curb fugitive dust emission.
9.	CAAQM station installed at Shramik chowk for continuous ambient air quality monitoring.
10.	Adequate green belts has been developed in and around the Pragati Nagar residential colony, office complexes etc.
11.	Surface miners deployment since 2009-10 has largely reduced the dust emission which was emitting through drilling, blasting and crushers.
12.	Wetting of coal before handling in CHP during handling in CHP and finally in loading



	operations is practiced.
<b>II.</b>	<b>Water Pollution Control Measures</b>
1.	The sedimentation ponds are provided for treating the mine water discharge. The treated mine water is used for dust suppression activities. There are 02 sedimentation ponds namely Sirki and Chainpur. Pragati Nagar pond acts as ground water recharge pond.
2.	Oil & Grease trap of 110 KL capacity has been installed in workshop area for the treatment of effluent generated after washing the HEMM through oil and grease trap in effluent treatment plant. The treated effluent is re-used for washing HEMM's in workshop.
3.	3.2 km pucca catch drain has been constructed around dump no. 3 & 5 to control soil erosion and water pollution. Regular de-siltation of drains is carried out before monsoon.
4.	Domestic effluent treatment plant of 3.00 MLD capacity has been constructed. The plant is combined with the Gevra project.
5.	Storm water drains have been constructed in the office buildings and colony.
6.	Rainwater harvesting have been installed in the colony and office buildings. There are 51 RWH systems constructed in Dipka area
7.	Garland drains being made around the periphery of the quarry to drain off the rain water away from the workings in order to maintain surface water drainage.
<b>III.</b>	<b>Noise Pollution Control Measures</b>
1.	Every year extensive plantation is being done both on plain and dump area by Chhattisgarh Rajya Van Vikas Nigam (a state government organization) and till date about 1831822 nos. of plant planted on approx. 732.729 ha area.
2.	Reduced quantity of blasting has resulted in lower noise levels.
3.	Lined chutes in silo to reduce noise.
4.	Surface miner deployed to eliminate coal crushing will reduce noise.
5.	Provision of ear muffs/ear plugs to workers subjected to noise level above recommended limits.



6.	Regular monitoring of noise level of project area.
<b>IV.</b>	<b>Hazardous Waste Management</b>
1.	Oil and Grease filters are stored in a drum placed on cemented concrete floor to prevent contamination of soil & ground water.
2.	The waste oil is stored in a container in the workshop for proper disposal.
3.	Used oil/burnt oil are stored in specified drums at work sites on concrete floors and are disposed through authorized recyclers.
4.	Oil & grease generated at workshop after treatment by oil & grease trap is safely stored and disposed.
5.	The copper & steel scraps are stored safely in separate location before disposal.
6.	Good housekeeping of workshop is followed diligently.

**PART-H**

**Additional measures/investment proposals for environmental protection including abatement of pollution, prevention of pollution.**

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Plantation of 126722 no. of saplings (i.e., 73450 no. on Dump area and 53272 no. on Non-dump area) will be planted in Dipka Expansion Project during the financial year of 2017-18.

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**PART-I**

**Any other particulars for improving the quality of the environment.**

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Thick vegetation and plantation on the overburden dumps.

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