



ENVIRONMENTAL CLEARANCE
(J-11015/610/2007- IA.II(M)dt.16th March'2017)

October'2019 to March'2020

ASHOK PROJECT



(ISO 9001 & ISO 14001-certified)


(PIPARWAR AREA)
CENTRAL COALFIELDS LIMITED

Block – Tandwa, Dist. – Chatra, Jharkhand

Status of compliance of the terms and conditions given in the Environmental Clearance vide letter No. J-11015/610/2007- IA. II (M) dt.16th March'2017 issued by MOEF&CC, Govt. of India, New Delhi for expansion of production capacity of Ashok OCP, from 12.00 MTPA to 14.00 MTPA located in Tehsil – Tandwa, District – Chatra, Jharkhand.

Period – October 2019 to March'2020

A. Specific Conditions

Sl. No.	EC Condition	Compliance Status								
i.	The maximum production from the mine at any given time shall not exceed the limit as prescribed in the Environmental Clearance (EC).	<p>Maximum production will be limited to the EC capacity of 14 MTPA as per the EC issued on 16-03-2017.</p> <p>The Coal Production of Ashok OCP during last three years is given below:</p> <table border="1" data-bbox="1034 949 1406 1084"> <thead> <tr> <th>Year</th> <th>Coal Production</th> </tr> </thead> <tbody> <tr> <td>2017-18</td> <td>10.81 MTPA</td> </tr> <tr> <td>2018-19</td> <td>10.04 MTPA</td> </tr> <tr> <td>2019-20</td> <td>10.51 MTPA</td> </tr> </tbody> </table>	Year	Coal Production	2017-18	10.81 MTPA	2018-19	10.04 MTPA	2019-20	10.51 MTPA
Year	Coal Production									
2017-18	10.81 MTPA									
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ii.	The validity of the EC is for the life of the mine or as specified in the EIA Notification. 2006, whichever is earlier.	<p>Agreed.</p> <p>The validity of the EC of the mine is for the life of the mine that is Nine (9) years from the date of EC i.e. 16.03.2017 i.e upto 09-03-2026.</p>								
iii.	Transportation of coal should be carried out by covered trucks. Mitigative measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.	<p>Transportation of coal is done through covered trucks.</p>  <p>The following mitigative measures have been undertaken to control dust & other fugitive emissions are given below :-</p> <ol style="list-style-type: none"> 1. Water sprinkling on haul roads and coal transport roads in Ashok OCP is being done by mobile & static sprinklers. <ol style="list-style-type: none"> a. 6 numbers of mobile sprinklers including 4 no. of mist sprayers are presently deployed. b. 116 numbers of static sprinklers are functioning which cover about 2.5 K.M of coal transport road. 								

		<p>2. Project has planted about 6.48 Lakh saplings on backfilled, roadside and around infrastructure to arrest migration of dust.</p> <p>3. PCC road of 7.7 K.M length from mine to railway siding has been constructed.</p>																					
iv	Continuous monitoring of occupational safety and other health hazards and other corrective actions to be ensured.	<p>Initial Medical Examination at the time of new recruitment and Periodical medical examination for occupational diseases is done for every person/worker deployed in core/mining area. Lung diseases / other occupational diseases has not been reported. Details of PME & IME undertaken is as under :-</p> <table border="1"> <thead> <tr> <th>Year</th> <th>PME(No.)</th> <th>IME (No.)</th> </tr> </thead> <tbody> <tr> <td>2014</td> <td>143</td> <td>265</td> </tr> <tr> <td>2015</td> <td>139</td> <td>54</td> </tr> <tr> <td>2016</td> <td>192</td> <td>70</td> </tr> <tr> <td>2017</td> <td>300</td> <td>48</td> </tr> <tr> <td>2018</td> <td>242</td> <td>72</td> </tr> <tr> <td>2019</td> <td>205</td> <td>665</td> </tr> </tbody> </table>	Year	PME(No.)	IME (No.)	2014	143	265	2015	139	54	2016	192	70	2017	300	48	2018	242	72	2019	205	665
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v.	Controlled blasting should be adopted to control ground vibrations and fly rocks.	Controlled blasting is carried out in project only in OB with all available control measures to control ground vibration & fly rocks. Blasting is done with the use of shock tubes. Maximum charge per delay 80 KG is used to reduce ground vibration and noise pollution.																					
vi	A Progressive afforestation plan shall be implemented covering an area of 477.08 Ha at the end of mining, which includes reclaimed External OB dump area nil, Internal OB dump area (377.08 Ha) and Green belt (100 Ha) and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Massive plantation shall be carried out in open spaces in and around the mine and a 3-tier avenue plantation along the main approach roads to the mine.	<p>Concurrent mine reclamation is under process. Till date, 280 Ha of land has already been backfilled and 6.48 Lakhs saplings have been planted over an area of about 233.00 Ha of reclaimed land. The density of plantation is 2500 saplings per hectare.</p> <p>Balance area will also be biologically reclaimed in the coming years as per the reclamation plan.</p> <p>Out of 6.48 lakh saplings, 1.00 lakh saplings of mixed species have been planted along haul roads, coal transportation roads & other major approach roads.</p> <p>Plantation details is enclosed as Annexure – I.</p>																					
vi	An estimated total 242.99 Mm ³ of OB will be generated during the entire life of the mine. there is no external OB dump. 242.99 Mm ³ of will be one internal OB dump in covering an area of 377.08 ha. The maximum height of internal OB dump will not exceed 30 m above ground level. The maximum slope of the dump shall not exceed 28 degrees. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self- sustaining and compliance status shall be submitted to MOEFCC and its Regional Office on yearly basis.	<p>There is no external dump.</p> <p>The OB generated during the mining operation is backfilled in the mine void.</p> <p>Concurrent mine reclamation is under progress, maximum height of OB dump has been kept as per the original ground level and the slope of the dump is kept within 30*.</p> <p>Balance area will also be biologically reclaimed in the coming years as per the reclamation plan.</p> <p>Till date, 280 Ha of land has already been backfilled and 6.48 Lakhs saplings have been planted over an area of about 233.00 Ha. of reclaimed land. The density of plantation is 2500 saplings per hectare.</p>																					

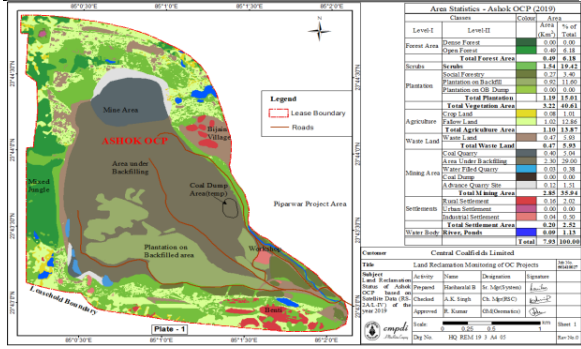
		Compliance status of plantation and reclamation is submitted to MoEF & CC Regional Office as part of six-monthly compliance report. Plantation details is enclosed as Annexure – I.
vi	Of the total quarry area of 551.18 Ha, the backfilled quarry area of 377.08 Ha shall be reclaimed with plantation and a void of 174.10 Ha at a depth of 40 m is proposed to be converted into a water body shall be gently sloped and the upper benches shall be terraced and stabilised with plantation / afforestation by planting native plant species in consultation with the local DFO / Agri. Department. The density of the trees shall be around 2500 plants per ha.	Concurrent mine reclamation is under process. Till date, 280 Ha of land has already been backfilled and 6.48 Lakhs saplings have been planted over an area of about 233.00 Ha. of reclaimed land. Balance area will also be biologically reclaimed in the coming years as per the reclamation plan. The present maximum depth of mine is 120 m. At the end of mine life, the total quarry area of 551.18 Ha, the backfilled quarry area of 377.08 Ha shall be reclaimed with plantation and a void of 174.10 Ha at a depth of 40 m is proposed to be converted into a water body. Saplings of native species is also used during plantation work. During plantation tree density of 2500 per Ha. is ensured.


(B) GENERAL CONDITION

(a) Mining


Sl. No.	EC Condition	Compliance Status								
(i)	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment, Forest & Climate Change. No change in the calendar plan including excavation, quantum of coal and waste should be made.	No change in Mining Technology and scope of working shall be made without prior approval of the Ministry of Environment, Forest & Climate Change. The Coal Production of Ashok OCP, in last years, is given below: <table border="1" data-bbox="1029 1451 1404 1590"> <thead> <tr> <th>Year</th> <th>Coal Production</th> </tr> </thead> <tbody> <tr> <td>2017-18</td> <td>10.81 MTPA</td> </tr> <tr> <td>2018-19</td> <td>10.04 MTPA</td> </tr> <tr> <td>2019-20</td> <td>10.51 MTPA</td> </tr> </tbody> </table>	Year	Coal Production	2017-18	10.81 MTPA	2018-19	10.04 MTPA	2019-20	10.51 MTPA
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(ii)	Mining shall be carried out as per the approved mining plan, and also abiding by the relevant laws related to coal mining and the circulars issued by Directorate General Mines Safety (DGMS). An approved progressive Mine Closure Plan shall strictly be complied with and submitted.	Mining is being carried out as per the approved mining plan in the approved area only in accordance with all rules & regulations. Mine Closure Plan has been prepared and duly approved by the CCL Board in its 422 nd meeting held on 15-03-2016. Proposed fund for Mine closure is Rs. 7460.02 Lakhs. Copy of the Mine Closure Plan has been submitted to the MoEF&CC.								

(b) Land Reclamation




<p>i.</p>	<p>Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office.</p>	<p>Monitoring of land use pattern by remote sensing is done by CMPDI every year for Ashok OCP. Summary of latest monitoring report is enclosed & the details as per the report is as under:</p> <table border="1" data-bbox="917 504 1500 757"> <thead> <tr> <th rowspan="2">Sl. No</th> <th rowspan="2">Reclamation Details Area (Sq. K.M).</th> <th colspan="2">Year</th> </tr> <tr> <th>2017</th> <th>2018</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Total Technical Reclamation.</td> <td>2.14</td> <td>2.30</td> </tr> <tr> <td>2.</td> <td>Total Biological Reclamation</td> <td>0.91</td> <td>0.92</td> </tr> <tr> <td>3.</td> <td>Total area under plantation</td> <td>1.18</td> <td>1.19</td> </tr> </tbody> </table>  <p>Satellite Imagery is enclosed as Annexure – II.</p>	Sl. No	Reclamation Details Area (Sq. K.M).	Year		2017	2018	1.	Total Technical Reclamation.	2.14	2.30	2.	Total Biological Reclamation	0.91	0.92	3.	Total area under plantation	1.18	1.19
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<p>ii.</p>	<p>Final mine void depth should not be more than 40 m. The void area should be converted into water body. The remaining area should be back filled up to the ground level and covered with thick top soil. The land after mining shall be restored for agriculture or forestry purpose.</p>	<p>The present maximum depth of mine is about 120 m. After mining final mine void will be converted into a water body with a depth of 40 m at the time of closure of the mine. OB is back-filled concurrently in the mine void / de-coaled area and topsoil is spread over the backfilled area for plantation. After mining, effort would be made to restore a part of mine for agricultural purpose. Concurrent mine reclamation is under process. Till date, 280 Ha. of land has already been backfilled and 6.48 Lakhs saplings have been planted over an area of about 233.00 Ha. of reclaimed land.</p>																		
<p>iii.</p>	<p>The top soil, if any. shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The overburden dumps should be vegetated with suitable native species to prevent erosion and surface run off. The entire excavated area shall be backfilled and afforested in line with the approved fine Closure Plan. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-</p>	<p>Top soil is stacked separately at a specific site. Top soil is spread over the backfilled area before biological reclamation to maintain soil productivity for plantation. Plantation and its maintenance is done by State Forest Department for 03 years and handed over to CCL after it is self sustaining. Compliance status of plantation and reclamation is submitted to MoEF&CC Regional Office as part of six-monthly compliance report.</p>																		

	<p>sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.</p>	 <p>Photographs of top soil stacked</p>
<p>iv.</p>	<p>Green belt shall be developed all along the mine lease area in a phased manners. The width of the green belt along forest area should not be less than 7.5 mt. And total area covered by 3 – tier green belt shall not be less than 100 ha. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach road.</p>	<p>Till date, 280 Ha. of land has already been backfilled and 6.48 Lakhs saplings have been planted over an area of about 233.00 Ha. of reclaimed land.</p> <p>Out of 6.48 lakh saplings, 1.00 lakh saplings of mixed species have been planted along coal transportation roads & other major approach roads.</p>

(c) Emissions, Effluents, and Waste Disposal

<p>i.</p>	<p>Transportation of coal by road should be carried out by covered trucks only. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM 2.5 Such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board in this regard.</p>	<p>Presently Coal transport from Ashok OCP is from 2 no. of sidings namely RCM Siding & Rajdhar Siding. From mine to siding coal is transported through covered trucks.</p> <p>Water sprinklers are being used for control of dust & fugitive emissions.</p> <p>a) Mobile Sprinklers - 6 no. for dust suppression. b) Static water sprinklers – 116 no. covering 2.5 K.M c) Plantation – 6.48 Lakh saplings</p>  <p>Mist Sprayer at Ashok OCP.</p>
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ii.	Vehicular emissions shall be kept under control and regularly monitored Project should obtain *PUC' certificate for all the vehicles from authorized pollution testing centres.	Contractors have been instructed to have PUC certificate for vehicles engaged in coal transportation.																								
iii.	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM ₁₀ , PM ₂₅ , SO ₂ and NO _x Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. should be done at least once in six months.	<p>The air quality parameter is being monitored at the following stations at Ashok OCP:</p> <p>(i) Tola across BentiNallah – A1, (ii) Benti village – A2, (iii) Bijain village – A3, (iv) Ashok pit – A4 for monitoring SPM, RPM, SO₂, NO_x. The parameters monitored are TPM, PM₁₀, PM_{2.5}, SO₂ and NO_x. Monitoring of heavy metals is being done once in six months. The latest report of Quarter Ending Sept.-2019 in respect of Ashok OCP is given below:</p> <table border="1" data-bbox="919 741 1517 987"> <thead> <tr> <th>SN</th> <th>Pb (µg/m³)</th> <th>Ni (ng/m³)</th> <th>As (ng/m³)</th> </tr> </thead> <tbody> <tr> <td>A1</td> <td><0.02</td> <td>3.35</td> <td><0.10</td> </tr> <tr> <td>A2</td> <td>0.02</td> <td>8.18</td> <td><0.10</td> </tr> <tr> <td>A3</td> <td><0.02</td> <td>1.11</td> <td><0.10</td> </tr> <tr> <td>A4</td> <td>0.02</td> <td><0.10</td> <td><0.10</td> </tr> <tr> <td>NAAQS Limit (Annual)</td> <td>0.5</td> <td>20</td> <td>6</td> </tr> </tbody> </table> <p>The results of monitoring report are enclosed as Annexure I.</p>	SN	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	A1	<0.02	3.35	<0.10	A2	0.02	8.18	<0.10	A3	<0.02	1.11	<0.10	A4	0.02	<0.10	<0.10	NAAQS Limit (Annual)	0.5	20	6
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v.	Crusher/feeder and breaker material transfer points should invariably be provided with dust suppression system. Belt-conveyors should be fully covered to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.	<p>5 numbers of surface miners have been deployed. Surface miners do away with the need for crushing as it produces (-) 100 mm coal. Surface miners are equipped with water sprinkling system which runs during its operation. All the drills have been provided with wet drilling arrangement. There is no crusher in the mine.</p>																								
v.	The project proponent shall not alter the major channels around the site. Appropriate embankment should be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary should be of suitable dimensions and critical patches should be strengthened by stone pitching on the river front side and stabilised with plantation so as to withstand the peak water flow and prevent mine inundation.	At present mine is at a distance of 3-4 KM from the river and it is moving away from the river. As such no embankment is required at present against river / stream.																								
vi.	Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources in the area in consultation with Central Ground Water Board.	11 no. of ponds have been made in nearby villages to augment water availability as well as ground water recharge.																								

		 <p>Benti Pond developed by Ashok Project 3 no. of check dams & 2 no. of earthen dams have also been made on Benti-nallah.</p>						
<p>vii.</p>	<p>Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. Dimension of the retaining wall to be constructed at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.</p>	<p>With the help of garland drains silt & sediment flow is coursed to the bottom most part of the mine and where the mine water is allowed to settle. Garland drains of 800 mt. length have been constructed. Catch drains are cleaned & desilted before the onset of monsoon.</p>  <p>The capacity of mine sump is 5.67 Lakh cu.mt to take care of the entire catchment area. Retaining wall of dimension 45m (L) X1m (Ht) X 0.5m (W) has already been constructed. 45 mt. wide check dam has also been constructed.</p> 						
<p>viii.</p>	<p>Industrial waste water (CHP. workshop and waste water from the mine) should be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act. 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents</p>	<p>Industrial wastewater from workshop is being collected and treated in Oil & Grease Trap provided in the workshop and recycled the maximum extent possible.</p> <p>The mine discharge is being collected in the sump and standards are being monitored fortnightly. The standards & detection limit for effluent water is given below:</p> <table border="1" data-bbox="922 1872 1519 1989"> <thead> <tr> <th>Parameter</th> <th>MoEF&CCSch-VI Standards Class 'A'</th> <th>Detection Limit</th> </tr> </thead> <tbody> <tr> <td>COD</td> <td>250</td> <td>4</td> </tr> </tbody> </table>	Parameter	MoEF&CCSch-VI Standards Class 'A'	Detection Limit	COD	250	4
Parameter	MoEF&CCSch-VI Standards Class 'A'	Detection Limit						
COD	250	4						

		O & G	10	2				
		pH Value	5.5 to 9	0.2				
		TSS	100	10				
		The effluent water report is given below for Quarter Ending Dec-2019 for kind information:						
		Station: Lagoon Discharge						
		Parameter	July 1 st FN	July 2 nd FN	Aug. 1 st FN	Aug. 2 nd FN	Sept 1 st FN	Sept 2 nd FN
		COD	40	44	24	40	20	40
		O & G	<2	<2	<2	<2	<2	<2
		pH Value	6.86	7.39	7.16	7.04	8.17	7.83
		TSS	44	42	28	44	25	42
Apart from the above surface Water & ground water quality is also being monitored quarterly. Oil & Grease traps have been provided in the workshop and is in operation.								

(d) Noise & Vibration Control

<p>i.</p>	<p>Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM. etc shall be provided with ear plugs/muffs.</p>	<p>Noise levels are regularly monitored by CMPDIL and it is below 85dBA. Workers engaged in blasting and drilling operations, of HEMM. etc are being provided with ear plugs/muffs periodically. The Noise Standards as per 'The noise pollution (Regulation and Control), Rules,2000 is given below:</p> <table border="1" data-bbox="919 510 1517 779"> <thead> <tr> <th rowspan="2">Time Frame</th> <th colspan="2">Noise Standard</th> </tr> <tr> <th>Day Time (6 AM to 10 PM)</th> <th>Night Time (10 PM to 6 AM)</th> </tr> </thead> <tbody> <tr> <td>Industrial</td> <td>75</td> <td>70</td> </tr> <tr> <td>Commercial</td> <td>65</td> <td>55</td> </tr> <tr> <td>Residential</td> <td>55</td> <td>45</td> </tr> <tr> <td>Silence</td> <td>50</td> <td>40</td> </tr> </tbody> </table> <p>The Noise standard for coal mines as per the Notification No. GSR 742(E), Dt: 25th September 2000 is given below:</p> <table border="1" data-bbox="919 869 1517 1025"> <thead> <tr> <th rowspan="2">Time Frame</th> <th colspan="2">Noise Standard</th> </tr> <tr> <th>Day Time (6 AM to 10 PM)</th> <th>Night Time (10 PM to 6 AM)</th> </tr> </thead> <tbody> <tr> <td>Coal Mines</td> <td>75</td> <td>75</td> </tr> </tbody> </table> <p>The Noise monitoring report is given below for the stations for Quarter Ending Sept-2019 for information:</p> <ol style="list-style-type: none"> 1. Tola across Benti Nallah - A1 2. Benti village - A2 3. PO Office & Workshop - A3 4. Pit Office - A4 5. Haul Road Near Pit Office – A5 <table border="1" data-bbox="919 1234 1509 1630"> <thead> <tr> <th>S N</th> <th>July 1st FN</th> <th>July 2nd FN</th> <th>Aug 1st FN</th> <th>Aug 2nd FN</th> <th>Sept 1st FN</th> <th>Sept 2nd FN</th> </tr> </thead> <tbody> <tr> <td>A 1</td> <td>46.2</td> <td>56.5</td> <td>50.3</td> <td>46.5</td> <td>54.3</td> <td>47.4</td> </tr> <tr> <td>A 2</td> <td>47.1</td> <td>58.4</td> <td>51.4</td> <td>47.3</td> <td>61.2</td> <td>46.1</td> </tr> <tr> <td>A 3</td> <td>49.1</td> <td>57.8</td> <td>53.8</td> <td>49.5</td> <td>60.4</td> <td>52.6</td> </tr> <tr> <td>A 4</td> <td>47.2</td> <td>65.2</td> <td>52.4</td> <td>47.4</td> <td>59.7</td> <td>51.4</td> </tr> <tr> <td>A 5</td> <td>49.1</td> <td>67.4</td> <td>52.7</td> <td>49.3</td> <td>61.8</td> <td>50.9</td> </tr> </tbody> </table>	Time Frame	Noise Standard		Day Time (6 AM to 10 PM)	Night Time (10 PM to 6 AM)	Industrial	75	70	Commercial	65	55	Residential	55	45	Silence	50	40	Time Frame	Noise Standard		Day Time (6 AM to 10 PM)	Night Time (10 PM to 6 AM)	Coal Mines	75	75	S N	July 1 st FN	July 2 nd FN	Aug 1 st FN	Aug 2 nd FN	Sept 1 st FN	Sept 2 nd FN	A 1	46.2	56.5	50.3	46.5	54.3	47.4	A 2	47.1	58.4	51.4	47.3	61.2	46.1	A 3	49.1	57.8	53.8	49.5	60.4	52.6	A 4	47.2	65.2	52.4	47.4	59.7	51.4	A 5	49.1	67.4	52.7	49.3	61.8	50.9
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<p>ii.</p>	<p>Controlled blasting techniques should be practiced with use of delay detonators to mitigate ground vibrations and fly rocks.</p>	<p>Controlled blasting is carried out in project. Blasting is done with the use of shock tubes so as to control ground vibrations & fly rocks. Maximum charge per delay 80 KG is used to reduce ground vibration and noise pollution.</p>																																																																			

(e) **Occupational Health & Safety**

i.	Besides carrying out regular periodic health check-up of their workers. 20% of the workers identified from workforce engaged in active mining operations shall be subjected to health checkup for occupational diseases and hearing impairment, if any, through an specialised agency /institution within the District/State and the results reported to this Ministry and to DGMS.	Initial Medical Examination at the time of new recruitment and Periodical medical examination for occupational diseases is done for 1/5 of total man power every year. Details of PME & IME undertaken is as under :- <table border="1"><thead><tr><th>Year</th><th>PME(No.)</th><th>IME (No.)</th></tr></thead><tbody><tr><td>2014</td><td>143</td><td>265</td></tr><tr><td>2015</td><td>139</td><td>54</td></tr><tr><td>2016</td><td>192</td><td>70</td></tr><tr><td>2017</td><td>300</td><td>48</td></tr><tr><td>2018</td><td>242</td><td>72</td></tr><tr><td>2019</td><td>205</td><td>665</td></tr></tbody></table>	Year	PME(No.)	IME (No.)	2014	143	265	2015	139	54	2016	192	70	2017	300	48	2018	242	72	2019	205	665
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ii.	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects Supervisory staff shall be held responsible for ensuring compulsory wearing of dust mask	Dust mask have been regularly provided to the persons working in the core zone. Distribution details of dust mask is as under : <table border="1"><thead><tr><th><u>Year of distribution</u></th><th><u>No. of dust masks</u></th></tr></thead><tbody><tr><td>2015</td><td>350</td></tr><tr><td>2016</td><td>350</td></tr><tr><td>2017</td><td>300</td></tr><tr><td>2018</td><td>350</td></tr><tr><td>2019</td><td>600</td></tr></tbody></table>	<u>Year of distribution</u>	<u>No. of dust masks</u>	2015	350	2016	350	2017	300	2018	350	2019	600									
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2019	600																						
iii.	In case of outsourcing of work through MDO. the project proponent shall ensure the strict enforcement of the above conditions.	Strict enforcement of EC conditions is followed.																					

(f) **Biodiversity**

i.	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any. Spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.	Within the mine lease area there is no endangered species of fauna or flora. However, all precautionary measures are adopted during mining operations.
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(g) Implementation of Action Plan as per Public Hearing and CSR Activities

Sl. No.	EC Condition	Compliance Status																														
i.	Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall complete all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees should be compensated as per the norms laid out R&R Policy of the Company or the National R&R Policy or R&R Policy of the State Government, whichever is higher.	It is being Complied.																														
ii.	The Board of every company, shall ensure that the company spends, in every financial year, at least two per cent, of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy under Section 135 of the Companies Act. 2013, for the socio economic development of the neighbourhood	It is being Complied. Details of expenditure under CSR head is given below : <table border="1"><thead><tr><th>Sl. No.</th><th>Year</th><th>Total Expenditure under CSR Upto March 2018 (Amount in Lakhs)</th></tr></thead><tbody><tr><td>1.</td><td>2011-12</td><td>356.32</td></tr><tr><td>2.</td><td>2012-13</td><td>692.93</td></tr><tr><td>3.</td><td>2013-14</td><td>482.79</td></tr><tr><td>4.</td><td>2014-15</td><td>172.66</td></tr><tr><td>5.</td><td>2015-16</td><td>8.26 (Rs. 100.48 transferred to state govt. for high level bridge)</td></tr><tr><td>6.</td><td>2016-17</td><td>99.95</td></tr><tr><td>7.</td><td>2017-18</td><td>211.81</td></tr><tr><td>8.</td><td>2018-19</td><td>100.99</td></tr><tr><td></td><td>Total</td><td>2125.71</td></tr></tbody></table>	Sl. No.	Year	Total Expenditure under CSR Upto March 2018 (Amount in Lakhs)	1.	2011-12	356.32	2.	2012-13	692.93	3.	2013-14	482.79	4.	2014-15	172.66	5.	2015-16	8.26 (Rs. 100.48 transferred to state govt. for high level bridge)	6.	2016-17	99.95	7.	2017-18	211.81	8.	2018-19	100.99		Total	2125.71
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(h) Corporate Environment Responsibility

(i)	The Company shall have a well laid down Environment Policy approved by the Board of Directors.	Corporate Environmental Policy in respect of Central Coalfields Limited has been duly approved by the CCL Board on dt. 17.12.2019 and the same is available on the Company's website.
(ii)	To have proper checks and balances, the Company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large.	The company has a well laid down system of reporting of non-compliances & violations of environmental norms.
(iii)	A separate environmental management cell with suitable qualified personnel shall be set up	Sri Sanjay Kumar, has been appointed exclusively to work as Area Environmental Officer of Piparwar

	under the control of a Senior Executive, who will report directly to the Head of the Company.	Area and Sri R.N.Sakhare Asst. Manager (Mining) has been appointed exclusively to work as Environmental Officer of the project.
(iv)	The funds earmarked for environmental protection measures should not be diverted for other purpose. Year-wise expenditure should be reported to this Ministry and its Regional Office.	Funds earmarked for environmental protection works are used for this purpose only.

(i) **Statutory Obligations**

i.	Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India. Hon'ble High Court, NGT and any other Court of Law. if any. as may be applicable to the project.	Agreed.
ii.	This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife, if any as applicable to the project.	If required, the project undertakes to obtain requisite clearance from the concerned authorities. Lawalong wildlife sanctuary is at distance of 65 km. & Hazaribagh National park is at distance of 60 km.
iii.	The project proponent shall obtain Consent to Establish and Consent to Operate from the concerned State Pollution Control Board prior to increase in capacity of washery and effectively implement all the conditions stipulated therein.	Agreed.
iv.	Project Proponent shall obtain the necessary prior permission from the Central Grand Water Authority (CGWA) for drawl of water (surface and ground water).	The project has duly applied for obtaining permission from the Central Ground Water Authority (CGWA). Application no – 21-4/475/JH/MIN/2019 dated 08.04.2019.


(J) Monitoring of Project

i.	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year pre- monsoon (Aril- May). monsoon (August), post-monsoon (November) and winter (January) and the data nus collected may be sent regularly to Ministry of Environment. Forest and Climate Change and its Regional Office. Central Ground Water Authority and Regional Director. Central Ground Water Board.	Regular monitoring of groundwater level is done by by monitoring of wells. Installation of Peizometer is under process Well monitoring by details : Details of Well: <table border="1"> <thead> <tr> <th>Village</th> <th>No.</th> <th>Average Depth</th> </tr> </thead> <tbody> <tr> <td>Kalyanpur</td> <td>04</td> <td>20 ft.</td> </tr> <tr> <td>Bijain</td> <td>05</td> <td>22 ft.</td> </tr> <tr> <td>Benti</td> <td>01</td> <td>24 ft.</td> </tr> <tr> <td>Barwatola</td> <td>01</td> <td>22 ft.</td> </tr> <tr> <td>Henzda</td> <td>01</td> <td>20 ft.</td> </tr> </tbody> </table>	Village	No.	Average Depth	Kalyanpur	04	20 ft.	Bijain	05	22 ft.	Benti	01	24 ft.	Barwatola	01	22 ft.	Henzda	01	20 ft.
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ii.	The project proponent shall submit six monthly reports on the status of the implemented of the	Six – monthly Compliance report is regularly submitted to the respective Regional Office of the																		

	stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.	Ministry, respective Zonal Offices of CPCB and the SPCB.
iii.	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.	Full cooperation to the office(s) of the Regional Office of the MoEF&CC shall be extended as and when they will visit the mine.
iv.	The activities pertaining to development of green belt/horticulture shall be reported to concerned Regional Office of MoEF&CC on six monthly basis from the date of commencement of mining operations.	Agreed. The activities pertaining to development of green belt/horticulture is monitored by Satellite imagery and is reported to the Regional Office of MoEF&CC on six monthly basis alongwith six monthly compliance report.
v.	For half yearly monitoring reports, the data should be monitored for the period of April to September and October to March of the financial years and submitted to the concerned authorities within 2 months of the completion of periodicity of monitoring.	Agreed and will be followed.

(k) **Miscellaneous**

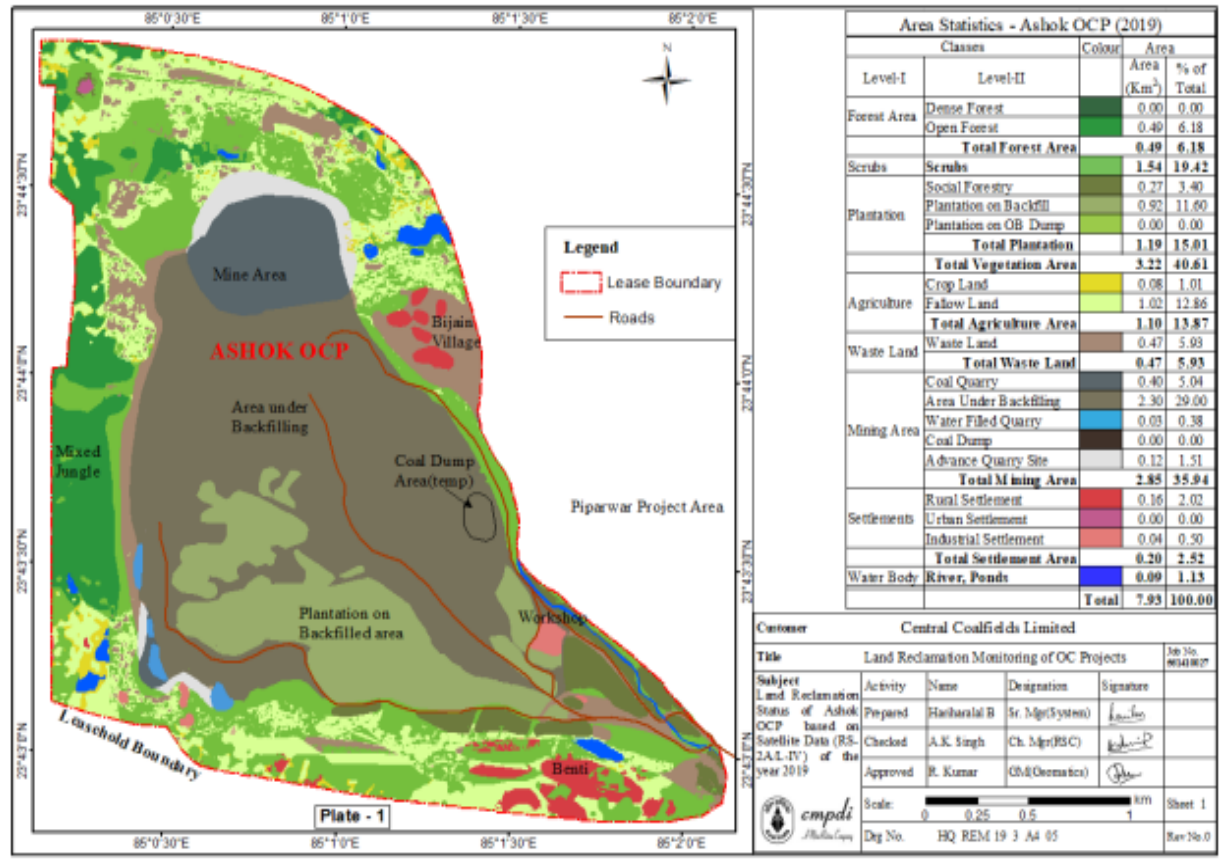
i.	A copy of clearance letter will be marked to concerned Panchayat/local NGO, if any, from whom suggestion / representation has been received while processing the proposal.	Complied.
ii.	An electronic copy of the EC letter shall be marked to the concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's Office, Tehsildar's Office for information in public domain within 30 days.	Complied.
iii.	The EC letter 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. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM ₁₀ , PM _{2.5} , SO ₂ and NO _x (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website.	Complied. EC letter has been uploaded on CCL website http://www.centralcoalfields.in/hindi/sutbs/envrclrn ce.php The monitoring data of environment quality parameter and critical pollutant and critical sectoral parameters displayed on the entrance of the project.
iv.	The project authorities should advertise at least in two local newspapers widely circulated, one of	Complied.

	<p>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 Board and also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearancenic.in and a copy of the same should be forwarded to the Regional Office.</p>	 <p>सेन्ट्रल कोलफील्ड्स लिमिटेड एक लिमिटेड कंपनी (कोल इंडिया लि. की एक सहायक कंपनी)</p> <p>सूचना</p> <p>सी.सी.एल. पिपरवार क्षेत्र के अशोक परियोजना (विस्तारीकरण) को भारत सरकार के वन, पर्यावरण और जलवायु परिवर्तन मंत्रालय (MOEF&CC) के ज्ञापक संख्या-J-11015/610/2007-IA.II(M) दिनांक 30 मार्च 2016 के द्वारा 10MTPA से 12MTPA की पर्यावरणीय स्वीकृति प्रदान की गई है। पर्यावरणीय स्वीकृति की प्रति झारखंड राज्य प्रदूषण नियंत्रण पर्वद, रांची के कार्यालय में उपलब्ध है तथा इसे वन, पर्यावरण और जलवायु परिवर्तन मंत्रालय (MOEF&CC) के वेबसाइट www.envfor.nic.in पर देखा जा सकता है।</p>
v.	<p>The Environmental Statement for each financial year ending 31 March in Form-V is mandated to be submitted by the PP for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the Company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail.</p>	<p>The Environmental Statement for the financial year ending 31 March 2020 shall be submitted on time to the Regional office of the Ministry of Environment, forest & Climate change and Jharkhand State pollution Control Board, Ranchi in Form-V.</p>

(PROJECT OFFICER)
ASHOK OCP

ASHOK OCP, PIPARWAR AREA, CCL

Ashok OCP Land Restoration / Reclamation Monitoring of Opencast Coal Mines based on Satellite Data of the Year 2019 as per the report submitted in March'2020.



ASHOK OCP, PIPARWAR AREA, CCL

DETAILS OF YEARWISE PLANTATION

Sl. No.	Year	Ashok OCP	
		Area (Ha.)	No. of plants
1	1998-99	91.67	234175
2	2000-2001	8.5	21250
3	2002-2003	10	25000
4	2003-2004	11.64	28850
5	2004-2005	18.02	55000
6	2005-2006	8.02	20000
7	2007-2008	8.94	22725
8	2008-2009	5	12500
9	2011-2012	19	47500
10	2012-2013	7.5	18755
11	2013-2014	5	12500
12	2014-2015	4	10000
13	2016-2017	8	20000
14	2017-2018	8	20000
15	2018-2019	20	50000
	Total	233.29	598255



FIXED SPRINKLERS AT RCM SIDING ASHOK OC PROJECT, PIPARWAR AREA, CCL.



TOP SOIL STACKING, ASHOK OC PROJECT, PIPARWAR AREA, CCL.



TOP SOIL STACKING, ASHOK OC PROJECT, PIPARWAR AREA, CCL.



RECLAMATION ATND AFFORESTATION, ASHOK OC PROJECT, PIPARWAR AREA, CCL.



PLANTATION AT ASHOK OC PROJECT, PIPARWAR AREA, CCL.



MIST SPRAYERS AT ASHOK OC PROJECT, PIPARWAR AREA, CCL.



BENTI POND AT ASHOK OC PROJECT, PIPARWAR AREA, CCL.



CAAQMS AT RCM SIDING ASHOK OC PROJECT, PIPARWAR AREA, CCL.

