



**The Singareni Collieries Company Limited**  
(A Govt Company)  
**BHUPALPALLI AREA**

Ref.No: BHP/ENV/56/2020/ 145

Dt.10-11-2020

To  
Director  
Ministry of Environment, Forests & Climate Change (MoEF & CC)  
Regional Office (South Eastern Zone),  
1<sup>st</sup> & 2<sup>nd</sup> Floor, HEPC Building, No. 34  
Cathedral Garden Road,  
Nungambakkam,  
Chennai – 600 034

Sir,

Sub: Submission of Half yearly Environmental monitoring Reports of Expansion of Kakatiya Longwall Underground Coal Mine Project of Bhupalpalli Area for the period of April-2020 to September-2020.

Ref: MoEF ltr.no. J-11015/464/2012-IA-II (M), Dt.11.05.2015, (Expansion of Kakatiya Longwall Underground Coal Mine Project)

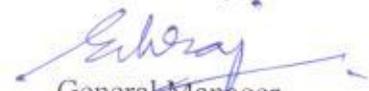
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With reference to the subject cited above, please find enclosed herewith the Half yearly environmental monitoring report along with soft copy for the period ending 30.09.2020 in respect of Expansion of Kakatiya Longwall Underground Coal Mine Project of Singareni Collieries Company Ltd, Bhupalpalli Area.

The report consists of Part-I, which indicates the status of the Implementation of Environmental Clearance conditions, and Part-II & IIA indicates various environmental control measures and analysis of data.

Thanking you,

Yours faithfully,

  
General Manager  
Bhupalpalli Area



**THE SINGARENI COLLIERIES COMPANY LIMITED**  
**(A Government Company)**  
**BHUPALPALLI AREA**

**PART-1**

**HALF YEARLY COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE CONDITIONS DURING THE PERIOD**  
**April -2020 to September-2020**

**A. SALIENT FEATURES OF THE PROJECT:**

1	Name of the Project	:	<b>Expansion of Kakatiya Longwall Underground Coal Mine Project</b>	
2	Organization	:	Singareni Collieries Company Limited	
3	Coalfield	:	Godavari Valley Coal Field	
4	Type of Mine	:	Underground Mine	
5	Technology	:	Board and Pillar with SDL	
6	Environmental Clearance	:		
	A	Letter No & date	:	MoEF ltr.no. J-11015/464/2012-IA-II (M), Dt.11.05.2015
	B	Sanction capacity	:	Normative: 2.747 MTPA      Peak: 3.13 MTPA
	C	Mining Lease Area	:	601.20 Ha
	D	Date of Public Hearing	:	14.03.2007
7	Location of the Project	:		
	A	Village	:	Basavarajupalli
	B	Tehasil	:	Ghanpur
	C	District	:	Jayashankar Bhupalpalli
	D	State	:	Telangana
	E	Latitude	:	18° 20' 52" to 18° 23' 40"
	F	Longitude	:	79° 52' 20" to 79° 55' 44"
	G	Topo Sheet	:	56N/15
	H	Nearest railway station	:	Jammikunta on Kazipet-Ballarsah section of SCR (45 Km) towards WSW
	I	Nearest Airport	:	Hyderabad
	J	Nearest town	:	Warangal
8	Address for Correspondence	:		
	A	Name	:	Sri R.Vijaya Prasad
	B	Designation	:	Dy.General Manager
	C	Address	:	KTK OC-III, Agent Office
	D	Pin Code	:	506169
	F	E-mail ID	:	po_ktkoc3@scclmines.com
	G	Telephone No.	:	9491145003
	H	Fax No.	:	08713220208
9	Life of the Project	:		
	A	Date of Opening	:	16.06.2003
	B	Total Life of the project as per EMP	:	24 years
	C	Balance Life	:	19 years
10	Seams	:		
	A	Total Seams Present	:	(4 nos)
	B	Seams being worked	:	3 seams

11	Depth		
	A	Minimum Depth (m)	42 m
	B	Maximum Depth (m)	640 m
	C	Present working depth (m)	374 m
12	Reserves		
	A	Total Geological Reserves	: 67.453 MT
	B	Total Extractable Reserves	: 40.029 MT
	C	Reserves already Extracted	: 2.190MT
	D	Balance Reserves	: 37.839 MT
	E	Coal production during last six months	: 0.086 MT
13	Land Requirement		
	A	Total Requirement (Mine Take Area)	601.20 Ha
	B	Forestland Involved	Nil
	C	Non-forestland	601.20 Ha
	D	Land acquired so far (Surface rights)	75.38 Ha out of 601.20 Ha 70.51 Ha for other purposes.
14	Statutory Clearances		:
	A	Ground Water Clearance	Ltr No:1862/T/2003-04/755 Dtd:05.11.2005
	B	Consent for Establishment	: Order no:58/PCB/CFE/RO-WGL/HO/2008-2720, DT.19.03.2008
	C	Consent for Operation	: Order No No: 190721981263, DT. 05.07.2019, Valid upto 31.12.2021
	D	Forest Clearance	: Not applicable
	E	Mining Lease	: The project area covered in following three mining leases. 1. Peddapur Block-I Extn. (North) ML, G.O.Ms. No.455 I&C Dept, dated 26.12.1998, valid up to 25.05.2029 2. Peddapur ML. G.O.Ms. No.114 I&C Dept, dated 19.04.1999, valid up to 21.09.2029 3. Dip side of Peddapur Extn. Block-I (North) ML, GO.Ms. No.146 I&C Dept. dated 19.06.2009, valid up to 16.09.2039
	F	Others (Specify)	Mine Boundary approved by DGMS.
15	R & R Involved		: Madhava Rao palli village

**COMPLIANCE STATUS:**  
**Expansion of Kakatiya Longwall Underground Coal Mine Project:**

**MoEF ltr.no. J-11015/464/2012-IA-II (M), Dt.11.05.2015**

**A. Specific Conditions**

Sl. No.	Condition	Compliance Status
i	The maximum production from the mine shall not exceed the the limit as prescribed in the EC	Coal production as on date is within the prescribed limits of EC
ii	The validity of the EC is for the life of the Mine or as specified by in the EIA Notification,2006	Expansion of EC obtained vides Lr. J-11015/464/2012-IA-II (M), Dt.11.05.2015 and the validity is as specified in the EIA notification 2006.
iii	All the safety measures shall be taken as per Coal Mining Regulation Act-2017 & related Circulars	The permission from the DGMS under the provisions of Mines Act and regulations 1952 & 2017 obtained for present workings and the conditions imposed in the permission will be complied.
iv	Subsidence level is high up to 6.482 in and strain up to 51.06 mm/m continuous monitoring and mitigation measures will be done. A separate team for subsidence monitoring and surface mitigation measures will be constituted.	At present only development of galleries is being done and long wall not yet established. During the extraction of coal from long wall panels, the subsidence movement on the surface will be monitored and mitigation measures will be taken.  A separate team for subsidence monitoring and surface mitigation measures will be constituted.
v	The mine out land should be useful for agriculture purpose	The mined out land at the post closure stage will be made use full for agriculture purpose.
vi	Safety measures and health issues need to be addressed for workers and surrounding villages.	Safety measures of the workers are followed as per the coal mining Act & Regulation 1952 & 2017 and related circulars. Further weekly mobile medical camps are being conducted in the surrounding villages.
vii	Safety equipments must be made available.	Safety equipments are made available to the Workman like (helmet, safety shoes, and self rescuers dust masks, cap lamps etc).
viii	The CSR cost should be Rs.5 per tones of Coal produced which should be adjusted as per the annual inflation.	Complied. CSR expenditure details are enclosed
ix	Transport of Coal from mine to APGENCO by belt conveyor, as informed by the proponents.	The project is under establishing stage only.

x	Coal transportation in pit from underground to surface through conveyors. Surface to Siding. Through covered trucks and loading at siding through covered trucks to the ISP by trucks by road.	The project is under establishing stage only.
xi	The production shall be within the same Mining Lease Area.	Production is within the Mining lease area of 601.20 Ha
xii	A separate team for subsidence monitoring and surface mitigation measures be constituted and continuous monitoring and mitigation measures be carried out.	A separate team for subsidence monitoring and surface mitigation measures will be constituted and continuous monitoring will be carried out and mitigation measures will also done.
xiii	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads, and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clay soil/suitable material.	At present only development of galleries is being done. Hence, there is no subsidence observed till now.
xiv	If subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement of the land owners.	At present only development of galleries are being done. However, the entire land were subsidence is predicated is proposed for acquisition and the process of acquisition is in progress.
xv	Mining shall be carried out as per statuette at a safe distance from river/nalla following within adjacent to the lease boundary at the time of depillaring , protective bunds and garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.	Requisition was made to I&CAD for diversion of Gundla vagu on 20.12.2011 for KLP UG workings. But as Longwall could not be commissioned there was no need for diversion. However, in the proposed KTK OC – III (Converting KLP UG to OC), Gundla Vagu which is passing over the proposed quarry area will be diverted after 5 <sup>th</sup> year of the working. The diverted nallah will be re-diverted during 20 <sup>th</sup> year along its original course over the internal dump area. Application, in this regard made to I&CAD, vide letter no. BHP/GMO/2019/W-17/656 Dt:13.08.2019 is enclosed herewith
xvi	Sufficient coal pillars shall be left unextracted around the air shaft(within the subsidence influence area ) to protect from any damage from subsidence ,if any.	200 mtrs radius coal block is proposed around the air shaft which will be un-extracted and protected from any damage due to subsidence.
xvii	Solid barriers shall be left below the roads falling within the blocks to avoid any damage to the roads.	There are no roads in the mine-take area. However the sufficient solid barrier will be left under the roads leading to villages.
xviii	Diversion of land shall be done with approval of the competent authorities.	Diversion of land will be done with approval of the competent authorities.
xix	Coal extraction shall be optimized in areas where agricultural production is continuing. some pillars shall be left below the agricultural land. No depillaring& coal extraction should be carried out below habitation, H.T.lines & beneath road, water bodies, railway track.	Depillaring & coal extraction will be commenced after acquiring the land and after diverting the HT lines, roads and water bodies.

xx	The mined out land should be used for agriculture purpose.	The mined out land at the post closure stage will be made use full for agriculture purpose.
xxi	Safety measures and health issues need to be addressed for workers and surrounding villagers.	Safety measures of the workers are followed as per the coal mining Act & Regulation 1952 & 2017 and related circulars. Further weekly mobile medical camps are being conducted in the surrounding villages.
xxii	Proponent shall implement all the related safety measures with safety equipments.	All safety measures are being take and Safety equipments are made available to the Workman like (helmet, safety shoes, and self rescuers dust masks, cap lamps etc).
xxiii	At the time of establishing the CHP, it is proposed to establish mist spray arrangements and also enclosing the ground level bunkers up to the level of gantry.	Mist sprinkling system are proposed at crushers of CHP to arrest the fugitive emissions from crushing operations. The storage bunkers are also proposed in the ground level and enclosing up to the gantry.
xxiv	An afforestation plan to be prepared for implementation after stabilization of subsidence.	Every year plantation program will be taken as per the EMP in the mine-take area. So far since last 5 years around 100 ha plantations carried out in the project area.
xxv	Water spraying arrangements at loading points and mist spray arrangements are to be provided.	Water spraying arrangements are provided at loading points and mist sprays arranged at Coal bunkers.
xxvi	No additional land,manpower and equipment and water shall be used for the expansion project.	Expansion of the project is within the 601.20 ha only and no extra water and equipment is used for this project.
xxvii	Mine closures activities include sealing of incline mouth dismantling of haulage system,clearing and afforestation of coal stock area,plantation on barren land and old abandoned mine.	Will be complied
xxviii	3-tier plantation should be developed 2 km stretch of road from the mine using native species.	Out of 100 ha Of Plantation carried out about 25 ha Of plantation is done in 3- tier system.
xxix	Garland drains (size, gradient and length) around the safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. sump capacity shall also provide adequate retention period to allow proper settling of silt material.	At present the project is in only development stage only. However, sufficient sump capacity was provided to deal any excess seepage of water and settling of the silt in the sump. Sump capacity has been provided adequately (i.e. 20 lakh gallons) with a retention period to allow proper settling of silt material. Sufficient number of pumps (2 x 350 HP) has been installed to pump out mine water during peak rain fall.
xxx	Water sprinkling system shall be provided to check fugitive emissions from loading operations, conveyor system, haulage roads, transfer points,etc.Major approach roads shall be black topped and properly maintained.	To control the fugitive emissions water sprinkling arrangements are made at loading and unloading points. Approach roads are black topped. Further a 3KLD capacity water tanker is used for dust suppression in the mine premises.
xxxi	A progressive afforestation plan shall be prepared and implemented over the mine lease area acquired and shall include areas under green belt development ,areas along roads ,infrastructure,along ML boundary and township etc., by planting native species in consultation the local DFO/Agriculture Department.	Progressive afforestation will be done as per the approved mine plan & mine close plan by planting native species in consultation with the local DFO/Agriculture department. So far 100 ha of plantation carried out.

xxxii	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and construction of new pezometers.The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon(August), post-monsoon(November) and winter (January)seasons and for quality in may. Data thus collected shall be submitted to the ministry of environment, forests &climate changes and to the central pollution control Board quarterly within one month of monitoring.	Monitoring of ground water level and quality done regularly by establishing a network of existing 35 observation wells, 4 No of Piezometric bore holes were established at PeddapurVillage, jangupally Village, Parsuram palle Village and Ravi Nagar Road near the KLP mine.The monitoring for quantity done four times in a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected e submitting to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
xxxiii	Acid water Treatment plant, volume of water to be treated and disposal of bring should be provided.	The project is in establishment stage only.
xxxiv	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.	Will be complied.
xxxv	Monitoring of drinking water should be selected and over planted over areas likely to be affected by subsidence.	Monitoring of drinking water is being done by M/s.EPTRI, Hyderabad every fortnight and quarterly Monitoring reports are submitting along with six monthly reports to MoEF&CC, Chennai.
xxxvi	Sewage treatment plant shall be installed in the township .ETP shall also be provided for treating workshop and CHP effluents.	2 Nos. Sewage Treatment plants are working in the residential colonies and ETP will be provided after establishing long wall work shop.
xxxvii	For monitoring land use pattern and for post mining use, a time series of land use maps,based on satellite imagery (on a scale of 1:5000) of the core zone and buffer zone ,from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series),and the report submitted to MoEF and its Regional office at Bangalore.	Complied and submitted the report of land use land cover study of core & buffer zone of KTK Long wall underground coal mine expansion project in the year of study-2017.
xxxviii	If the water quality parameters such as F,pH heavy metals ,etc .exceed the prescribed limits ,suitable measures by the proponent be taken to ensure that the local communities are provided alternate source of water for their livelihood.	The project authorities are providing 4 nos. drinking water tankers in every summer season to meet the water requirement of nearby village(s). Water quality parameters of F,PH and heavy metals are within the prescribed limits
xxxix	Medical camps should be organized in the area for regular check-up of workers/villagers/population detailed prevalent disease pattern in the area should be documented and details of medical facilities provided for the same be made available to the MoEF	Every week medical camps are conducting in the surrounding villages.
xl	Mine discharge water outside the ML shall be monitored, particularly for TDS and treated to conform to prescribed levels before discharge in to the natural environment.	Mine discharge water outside the ML is being monitored by M/s.EPTRI, HYD every fortnight and quarterly monitoring reports are submitting along with six monthly reports to MoEF&CC, Chennai.

xli	The company shall put up artificial ground water recharge measures for augmentation of groundwater resource .in case water table shows a declining trend. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	The Company will put up artificial groundwater recharge measures if required for augmentation of groundwater resource. The project authorities will meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine. However, in the summer every day drinking water supplied through 3.5 KLD water tankers are arranged for surrounding villages Basavarajupalli, Parasurampalli, Ravinager, Madhavaopalli, Nagarampalli of KLP
xlii	Besides carrying out regular periodic health check-up of their workers .10% 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 ,through an agency such as NIOH, Ahmadabad within a period of one year and the results reported to this ministry and to DGMS.	In addition to the Periodical Medical Examinations is being carried under as per statue about 10% of the workers identified from workforce engaged in active mining operations is being checked in the SCCL Hospitals by Qualified doctors trained at Central Laboratory, Mumbai for medical examination as per ILO standards.
xliii	The mining in the existing mines should be phased out after expiry of the current mining lease and after reclamation of mined over area. The operating mines may be analysed and monitored for compliance of conditions, bearing with movement of wild life and until such time they are closed/phased out.	Will be complied
xliv	The Project specific CSR for an amount of Rs.5/tonne of coal production , as adjusted as per the annual inflation, should be provided for the CSR activities undertaken and the progress made thereon shall be uploaded annually on the company website. Monitoring of the impacts of activities under CSR shall be carried out periodically.	Is being complied
xlv	A Final mine closure Plan along with details of corpus fund shall be submitted to the Ministry of Environment Forests & Climate Change 5 years in advance of final mine closure for approval.	Will be complied
xlvi	Corporate Environment Responsibility: a).The Company shall have well laid down Environment Policy approval by the Board of Directors. b) The Environment shall prescribe for standard operating process/procedures bring into focus any infringements/deviation of the environmental or forest norms/condition. c).The hirarchical system or Administrative order of the company to deal with Environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished. d).To have proper checks and balances, the company shall have a well laiddown system of reporting of non-compliance/violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large.	The company has well laid environment policy approved by the Directors of the company. Copy of Environmental policy is enclosed.

**B.General Conditions:**

S.No	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 mining technology and scope of working will be made without prior approval of the ministry of environment.
ii	No change in the calendar plan of production for quantum of mineral coal shall be made.	No change in the calendar plan of production for quantum of mineral coal will be made..
iii	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM-10, PM-2.5, SO <sub>2</sub> and NO <sub>x</sub> monitoring. 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	A net work of 4 Ambient Air Quality monitoring stations has been established covering core and buffer zone based on meteorological data, topographical features and environmental sensitive areas in consultation with Regional Office of Telangana State pollution Control Board, Warangal. The parameters PM10, PM2.5, SO <sub>2</sub> and NO <sub>x</sub> is being monitored once in every fortnight and Monitoring of heavy metals such as Hg,As,Ni,Cd,Cr is being done once in six months by Environment Protection training and Research Institute(EPTRI), Hyderabad.
iv	Data on ambient air quality (PM10,PM2.5,SO <sub>2</sub> , and NO <sub>x</sub> monitoring. 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 and the Central Board once in six months. Random verification of samples through analysis from independent laboratories recognised by under the EPA rules,1986 shall be furnished as part of compliance report.	Data on ambient air quality (SPM, RPM, SO <sub>2</sub> and NO <sub>x</sub> ) is being submitted regularly to the MoEF&CC, Chennai and to the State Pollution Control Board and the Central Pollution Control Board once in six months.
v	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.	All precautions are being taken to keep noise levels below 85dBA in the work environment, ear muffs are provided for fan operators, pump operators etc. where noise is more. No HEMM is being operated as it is UG mine.

vi	<p>Industrial Waste water (workshop and wastewater from the mine) shall be properly collected, treated so as to confirm to the standards prescribed under GSR 422(E) dated 19<sup>th</sup> May 1993 and 31<sup>st</sup> December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.</p>	<p>Only underground development work is being carried out. The pumped out water is being filtered and treated regularly for usage in the mine.</p> <p>Presently the Mine discharge water is being treated in slow sand filter bed of 2,00,000 gallons capacity before discharging outside the mining lease. The mine discharge water is being monitored periodically once in every fortnight for four critical parameters namely PH, TSS, COD and Oil &amp; Grease as envisaged in GSR 742(E), in addition to these the mine discharge water is being analyzed for all the parameters once in a year as envisaged in GSR 801 (E) through Environment Protection Training and Research Institute, Hyderabad.</p> <p>Presently the workshop is not established. Effluent Treatment Plant (Oil &amp; Grease Traps) will be constructed for treatment of workshop effluent after the establishment of workshop.</p>
vii	<p>Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded</p>	<p>Vehicular emissions are being kept under control by ensuring the periodical maintained of transportation vehicles by monitoring of vehicular emissions. Vehicles used for transporting the mineral are covered with tarpaulins and loading optimally.</p>
viii	<p>Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analyzed through a laboratory recognized under EPA Rules, 1986.</p>	<p>Monitoring and analysis is being carried out by external agency EPTRI Hyd. The monitoring agency, Environment Protection Training and Research Institute (EPTRI), Hyderabad is approved Laboratory by MoEF and accredited with National Accreditation Board for Laboratory Testing. The external agency also established regional laboratory for analysis of critical parameters of Air and Water at Ramagundam to cater Bhupalpalli Area requirements.</p>
ix	<p>Personal working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.</p>	<p>Personnel working in dusty areas are being provided dust respirators/masks and adopting job rotation practice. Training and information on safety and health aspects are being given through Internal Safety Organization and Mine Vocational Training Centers. 360 nos. of dust masks were provided to workmen during last six months. Occupational health surveillance is being carried out periodically through Periodical Medical Examinations (PME) once in every 5 years through well established PME centers of SCCL. 111 persons have undergone PME during this six months period.</p>
x	<p>Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.</p>	<p>It is being complied by Hospital Authorities periodically. Occupational health surveillance is being carried out periodically through Periodical Medical Examinations (PME) once in every 5 years through well established PME centers of SCCL. 10 out sourced persons have undergone PME during this six months period.</p>

xi	A separate environmental management cell with suitable qualified personal shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.	An environment management committee will be constituted at the project level consisting of following members to monitor the implementation of EC conditions and other environmental protection measures. (i) Project Officer (ii) Mine Manager (iii) Safety officer (iv) Project Survey Officer (v) Environmental Officer (vi) Area Forestry Officer (vii) Civil Engineer (viii) Hydro-geologist In addition to the above, Corporate Environment department under the under control of General Manger will periodically inspect the project for monitoring the implementation of EC conditions in case of any deviation in the compliance of EC conditions will be directly report to the Director (P&P).
xii	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-Wise expenditure shall be reported to this Ministry and its concerned Regional Office	The funds earmarked for environmental protection measures will be kept in separate account and will not be diverted for other purpose. Year-wise expenditure will be reported to this Ministry and its Regional Office at Bangalore.
xiii	The Project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days 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 may also be seen at the website of the ministry of Environment & Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>	Advertisement was given in the Eenadu telugu and DC English Daily News papers on 15.05.2015 stating that the KLP of SCCL has been accorded the Environmental Clearance from Ministry of Environment and Forests, GOI, New Delhi. a copy of the clearance letter is available with the State Pollution Control Board and also be seen at the website of the ministry of Environment & Forests .
xiv	A copy of the clearance letter shall be marked to concerned Panchayat/Zilla Parishad, Municipal Corporation or Urban local body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.	Complied
xv	A copy of the environmental clearance letter shall be shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office. District Industry Sector and Collector's Office/Tehsildar's Office for 30 days.	Complied

xvi	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance 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 PM10,PM2.5,,SO2, and NOx(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
xvii	The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the Ministry,respective Zonal Office's of CPCB and the SPCB.	Half yearly compliance of the EC conditions report of the Project is regularly submitting to MoEF &CC, Chennai and State Pollution Control Board.
xviii	The Regional Office of this Ministry located in the Region shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional; Office by furnishing the requisite data/information/monitoring reports.	Complied
xix	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 Office of the MoEF & CC by e-mail.	Environmental Statement is submitting in Form-V for financial year ending 31st March in the month of 30th June,2020 to State Pollution Control Board and shall also being uploaded on the company's website along with the status of compliance of EC conditions and being sent to the respective Regional Office of the MoEF & CC by e-mail.

5. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report so also during their presentation to the EAC.

Status: complied

6. The commitment made by the Proponent to the issue raised during Public Hearing shall be implemented by the Proponent.

Status: Complied, CSR works are enclosed.

7. The proponent is required to obtain all necessary clearances/approvals the may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

Status: All necessary clearances/approvals were obtained.

8. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

Status: Any further condition for environmental protection will be complied.

9. The Proponent shall setup an Environment Audit cell with responsibility and accountability to ensure implementation of all the EC conditions..

Status: An environment Audit cell constituted at the project level consisting of following members with responsibility and accountability to ensure implementation of all the EC conditions.

- a. Project Officer
- b. Mine Manager
- c. Safety officer
- d. Project Survey Officer
- e. Environmental Officer
- f. Area Forestry Officer
- g. Civil Engineer
- h. Hydro-geologist

10. 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)1986.

Status: ---

11. 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. The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations

Status:---

12. 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.

Status:----

13. This EC supersedes the earlier EC. Vide letter no.J-11015/357/2006-IA-II(M) dated:06-08-2007 for the production capacity of 2.15MTPA in an ML area of 601.20. Ha.

Status: Complied

## Kakatiya Long Wall Project

### PART – II

#### 1. Production Details

Sl. No	Year	Coal (in MT)	
		As per EC	Actual
1	2007-2008	0.00	
2	2008-2009	2.28	0.148
3	2009-2010	2.28	0.191
4	2010-2011	2.28	0.185
5	2011-2012	2.28	0.144
6	2012-2013	2.28	0.077
7	2013-2014	2.28	0.084
8	2014-2015	2.28	0.114
9	2015-2016	3.13	0.112
10	2016-2017	3.13	0.129
11	2017-2018	3.13	0.294
12	2018-2019	3.13	0.274
13	2019-2020	3.13	0.278
14	2019-2020 (April,2020 to Sept,2020)	3.13	0.086

#### 2. Plantation:

1	No of plants planted during last six months/ last year	----
2	Area covered in Ha	-
3	Expenditure incurred in Rs.lakhs	-
4	Total area brought under plantation so far in Ha	104 Ha
5	Total no of plants planted so far since inception	130008
6	Species of plants planted	Clones,Sinduga,Kanuga,Neem, Naravepa, Naredu, Ravi, Buruga,Usiri, Nemali nara, Veduru, Eppa etc.
7	Seeds sown so far	-
8	Small plants planted so far	-
9	Total expenditure in Rs. lakhs -	<b>6126125</b>

#### 3. Water Balance Statement:

SI	Description	Quantity in KLD
1	Average quantity of water pumped out of the mine	720
2	Water used for drinking/bathing and other industrial requirement	300
3	Water used for dust suppression	70
4	Water used for plantation	20
5	Water supplied for nearest township/village for domestic purpose	25
6	Excess water let out	305

#### 4. Micro-meteorological Monitoring:

Micro-meteorological station was installed at Bhoopalpalli GM Office: The summary of the monitoring from April-2020 to September-2020 as follows:

Month	Wind Speed (m/s)			Temperature (°C)			Relative Humidity (%)			Rainfall (mm)	
	Mean	Max	Calm %	Mean	Max	Min	Mean	Max	Min	Total	Hourly highest
April, 2020	2.5	5.8	13.33	31.8	41.4	22.3	46.2	80.6	18.4	5.2	3.0
May, 2020	2.7	6.1	18.68	34.3	46.1	23.6	41.1	91.5	8.2	7.1	0.5
June, 2020	1.2	4.2	14.58	30.6	42.1	23.3	62.0	98.5	22.8	265.3	1.5
July, 2020	2.0	4.5	11.29	28.5	37.8	24.0	74.6	99.9	20.6	306.1	2.0
August, 2020	2.3	6.5	13.17	27.1	36.6	22.6	81.7	99.9	20.5	986.6	3.1
September, 2020											

#### 5. Ambient Air Quality Monitoring: Monitoring Locations:

##### Monitoring Locations:

Sl.No	Code	Name of the Location	Zone	Latitude	Longitude	Direction & distance w.r.t Project
1.	CA5	KTK Longwall Project	Core	N 18°22' 10.1"	E 79° 53' 15.2"	--
2.	BA10	Peddapur Village	Buffer	N 18°22' 59.6"	E 79° 54' 32.1"	West – 0.5 Km
3.	BA11	Dharmaraopet Village	Buffer	N 18°20' 53.1"	E 79° 53' 06.0"	SW – 0.5 Km
4.	BA18	Basavarajupalli Village	Buffer	N 18°21' 59.9"	E 79° 52' 57.8"	South – 1.2 Km

##### Noise Monitoring data:

The summary of the monitoring from April 2020 to September 2020 follows:

Location	Direction & Distance	PM10			
		Min.	Max.	98%tile	STD
KTK Longwall Project	Core Zone	95	182	178.50	250
Peddapur Village	Buffer Zone	53	74	72.92	100
Dharmaraopet Village	Buffer Zone	53	73	72.82	100
Basavarajupalli Village	Buffer Zone	55	83	82	100
Location	Direction & Distance	PM2.5			
		Min.	Max.	98%tile	STD
KTK Longwall Project	Core Zone	36.7	53.2	52.74	-

Peddapur Village	Buffer Zone	29.2	41.2	41.07	60
Dharmaraopet Village	Buffer Zone	32.2	41.8	41.39	60
Basavarajupalli Village	Buffer Zone	33.8	49.8	48.74	60
Location	Direction & Distance	SO2			
		Min.	Max.	98%tile	STD
KTK Longwall Project	Core Zone	10	15.5	15.5	120
Peddapur Village	Buffer Zone	9	10.5	10.5	80
Dharmaraopet Village	Buffer Zone	7.3	11.3	11.28	80
Basavarajupalli Village	Buffer Zone	6.5	11.4	11.36	80
Location	Direction & Distance	NO2			
		Min.	Max.	98%tile	STD
KTK Longwall Project	Core Zone	13.7	18.2	13.7	120
Peddapur Village	Buffer Zone	13.5	14.9	14.86	80
Dharmaraopet Village	Buffer Zone	10.9	14.8	14.78	80
Basavarajupalli Village	Buffer Zone	9.5	14.9	14.86	80

#### **Air Pollution Control Measures:**

- ❖ Effective water spraying is being maintained at Bank heads and also at bunkers.
- ❖ LPG gas is supplied free of cost to the employees.
- ❖ Sand filter beds of capacity 2,00,000 gallons are maintained at mine premises for treatment of mine discharge. Excess water from filter beds is let out for agriculture lands and village tanks.
- ❖ In this area two STPs of capacity 3.0 MLD are working. Around 1800 KLD sewage water treated in the STPs and the same was let out to nearby Forest tank.
- ❖ Plantation is developed in the mine premises and in the mine take area.
- ❖ Water tanker is arranged for water spraying for dust suppression along the coal transport road.

Coal transport trucks carrying coal is covered with tarpaulins

#### **6. Surface Water Quality Monitoring:**

Monitoring Data: The summary of the monitoring from April-2020 to September-2020 is enclosed as Annexure-2

#### **7. Groundwater Quality Monitoring:**

Monitoring Data: The summary of the monitoring from April-2020 to September-2020 is enclosed as Annexure-3

## 8. Effluent Quality Monitoring

Sl. No.	Location	Parameter	Min.	Max.	Standard
1.	KLP LW (KTK LW) Mine Discharge	<b>pH</b>	7.1	8.2	5.5 - 9.0
2.	KLP LW Settling Tank Outlet		7.3	8.3	5.5 - 9.0
1.	KLP LW (KTK LW) Mine Discharge	<b>TSS (mg/l) 105<sup>o</sup> C</b>	21	55	100mg/lit
2.	KLP LW Settling Tank Outlet		24	71	100mg/lit
1.	KLP LW (KTK LW) Mine Discharge	<b>TDS at 180<sup>o</sup> C</b>	691	934	
2.	KLP LW Settling Tank Outlet		620	911	
1.	KLP LW (KTK LW) Mine Discharge	<b>COD (mg/l)</b>	18	51	250mg/lit
2.	KLP LW Settling Tank Outlet		19	62	250mg/lit
1.	KLP LW (KTK LW) Mine Discharge	<b>BOD</b>	2	9	30 mg/L
2.	KLP LW Settling Tank Outlet		3	11	30 mg/L
1.	KLP LW (KTK LW) Mine Discharge	<b>Oil &amp; Grease (mg/l)</b>	1	2.4	10mg/lit
2.	KLP LW Settling Tank Outlet		1	2.8	10mg/lit

## Water Pollution Control Measures:

### 9. Phreatic surface monitoring: (Range of Water Table)

The phreatic data monitored during the year April-2020 to September-2020 s as given below.

#### A. Observation Wells

Sl. No.	Name of village	Location	Type of Well	Period	Depth to water (m)
					Pre-Monsoon, Monsoon, Post Monsoon & Winter April-2020 to September-2020
1	Chelpur	Centre of the village	Domestic	Winter	9.28
				Pre-monsoon	10.63
				Monsoon	1.22
				Post-monsoon	
2	Dharmaraopet	Adj.to B.Ravindar redid house	Domestic	Winter	0.38
				Pre-monsoon	1.33
				Monsoon	0.87
				Post-monsoon	
3	Baswarajupalli	Entrence of the village	Domestic	Winter	3.61

Sl. No.	Name of village	Location	Type of Well	Period	Depth to water (m)
					<u>Pre-Monsoon,</u> <u>Monsoon,</u> <u>Post Monsoon</u> <u>&amp;Winter</u> April-2020 to September-2020
				Pre-monsoon	7.16
				Monsoon	0.74
				Post-monsoon	
4	Gollapalli	Centre of the village	Domestic	Winter	3.89
				Pre-monsoon	8.97
				Monsoon	0.50
				Post-monsoon	
5	Ravi nagarm	Road side	Domestic	Winter	1.22
				Pre-monsoon	WD
				Monsoon	AB
				Post-monsoon	
6	Peddapur	Centre of the village	Domestic	Winter	12.46
				Pre-monsoon	DRY
				Monsoon	9.97
				Post-monsoon	
7	Gurrampet	Northern end of the village.	Domestic	Winter	4.05
				Pre-monsoon	9.91
				Monsoon	0.37
				Post-monsoon	
8	Madhavaopalli	Centre of the village	Domestic	Winter	7.35
				Pre-monsoon	8.55
				Monsoon	NA
				Post-monsoon	

#### Water Conservation Measures:

- a). Mine discharge water is treated in sand filter bed of capacity 2,00,000 gallons which is in the mine premises.
- b). In this area two STPs of each 3.0 MLD capacity are working and dealing with 1800 KLD sewage water. After treatment sewage water is let out to nearby Forest tank.

#### 10. Noise Level Monitoring Monitoring Locations

Station Code	Name of the Stations	Latitude	Longitude
CN 7	KTK Long Wall Project	N 18°22' 10.1"	E 79° 53' 15.2"
BN 7	Peddapur Village	N 18°22' 59.6"	E 79° 54' 32.1"
BN 8	Basavarajupalli Village	N 18°21' 59.9"	E 79° 52' 57.8"

**A. Noise Monitoring Data April-2020 to September-2020**

Location	Direction & Distance	Day Time			
		Min.	Max.	Avg.	STD
KTK Long Wall Project	Core	51.2	67.8	59.49	75
Peddapur Village	North	40.6	51.8	46.22	55
Basavarajupalli Village	East	43.4	49.4	46.53	55
Location	Direction & Distance	Night Time			
		Min.	Max.	Avg.	STD
KTK Long Wall Project	Core	43.9	53.7	48.33	70
Peddapur Village	North	30.5	39.1	34.99	45
Basavarajupalli Village	East	33.9	39.6	39.36	45

**Noise Pollution Control Measures:**

- i) Plantation is grown around the fan house control noise and also evasee is fitted to the fan house.
- ii) Noise levels were recorded at various locations.
- iii) To dampen the noise levels along the belt conveyor impact rollers are provided at transfer points to reduce the noise.
- iv) High level noise intensity working areas/zones earmuffs or earplugs are provided to the workmen.
- v) Regular noise level monitoring is being done periodically for taking corrective action where ever required.

**11. Capital and Revenue Expenditure incurred on Environment Management and Pollution Control Measures:**

**Environment Expenditure during the period of April-2020 to September-2020**

	Capital	Revenue (in Rs.)
<b>KLP</b>	-	1,45,84,138.81

**12. Socio-economic Measures:**

- Quarters are constructed on non coal bearing areas with such facilities as Hospitals, Schools, Market place, Post Office, Telegraph Office, Power Supply, Community Halls, Recreation Clubs, Play Grounds and protected water supply and well netted sewage and drainage line systems.
- Free medical treatment to workmen and their families is given and all children of workmen are covered under immunization programme.
- Incentives are being given to the employees to encourage them for undergoing family Planning operations.
- Bore wells are provided in colonies. The drinking water which is supplied to the colony is chlorinated to the prescribed standards.
- Recreation clubs are provided with adequate facilities
- Free medical camps are being conducting regularly to the surrounding villagers
- Encouragement to sports and games is given by forming works people's sports and games association for conducting inters area meets etc. Giving training to the unemployed youth in different types of self employment schemes through Singareni Sewa Samithi
  - Environment awareness campaign measures:

- Environmental week celebrated for the year 2020 and environmental awareness classes given to all workmen to maintain eco friendly complications on environment awareness was conducted and the winners were given prizes.
- Energy and Resource conservation measures:
- Steps taken to conserve oil and grease: By arresting and minimizing oil and grease leakages.
- Waste materials generated and waste management practices:
- Army recruitment training, tailoring, computer courses impart to the local unemployed.
- Every Thursday conducting free medical camps in the nearby villages.
- In surrounding villages roads are developed through SHAPE funds.
- Every year plantation program is conducting in the surrounding villages.
- 111 persons have undergone Periodical Medical Examination during this six months period.

  
 Colliery Manager,  
 KAKATIYA LONGWALL PROJECT,  
 BHUPALPALLI AREA.

  
 AGENT  
 KAKATIYA LONGWALL PROJECT,  
 BHUPALPALLI AREA.

