

SIX MONTHLY COMPLIANCE REPORT
OF
ENVIRONMENTAL CLEARANCE

SHARDA UG MINE

(0.315 MTPA IN AREA OF 307.50 HA)

EC NO. - J-11015/154/2008/IA.II dated 16.02.2012



WESTERN COALFIELDS LIMITED
KANHAN AREA
PO: DUNGARIA, CHHINDWARA (MP)-480553

Period - April 2022 to September 2022

**Name of Project: Sharda Underground Coalmines Project
(0.315 MTPA in an ML areas of 307.50 ha)**

**MOEF Environmental Clearance Letter No. J-11015/154/2008-IA-II (M) Dated 16.02.2012
Status of Implementation of Environmental Clearance conditions**

S. No.	Condition	Remarks / Action
A	Specific Condition	
(i)	The project proponent shall contribute on proportionate basis the amount required for implementation of the plans prepared by the National Tiger Conservation Authority (NTCA) for rejuvenation and restocking of the viable corridor and the mitigative measures to eliminate/minimize the adverse impact of coal transportation mined from Pench-Kanhan coalfields of the viable corridor the precise boundary of which shall be identified by NTCA.	Not applicable. There are no National parks, wild life sanctuary and biosphere reserve in the buffer zone. The proposed project is 15 km away from Satpura Tiger Reserve and 61.25 km away from Pench Tiger Reserve. The Pench – Satpura Tiger corridor is at a distance about 20 km from mine as identified by NTCA.
(ii)	Study of site specific aquifer characteristics well inventories, pumping test at site and correlation of Subsidence prediction with hydrological attribute shall be undertaken and appropriate preventive and mitigative measures implemented.	Noted for compliance. Project not started yet. Work for establishment of mine started from 06 th June 2020. Groundwater monitoring and hydrogeology study is being regularly conducted. Copy of Ground water monitoring report enclosed for period Nov'21 to Oct'22.
(iii)	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 corrective plugged with ballast and clayey soil/suitable material.	Regular monitoring of subsidence movement on the surface over and around the working area will be done and corrective measures shall be taken to avoid loss of life and material and cracks shall be plugged with suitable mineral materials.
(iv)	Subsidence shall be monitored closely and if subsidence is found exceeding the permitted limits then the land owners shall be adequately compensated with mutual agreement of the landowners.	Noted for compliance. Subsidence will be monitored regularly. All norms as prescribed by DGMS shall be diligently followed.
(v)	Coal extraction shall be optimized in areas where agricultural production is continuing. Some pillars shall be left below the agricultural land. No coal depillaring shall be undertaken below areas of Habitation.	Noted for compliance. Coal extraction shall be done below agricultural land in strict compliance of permissions received from DGMS for the purpose
(vi)	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.	Noted for compliance. At present 800 Nos. of trees have been planted along the mine boundary. Further plantation shall be taken up during the coming years.
(vii)	Garland drains (size gradient and length) around the safely areas such as mine shaft and low lying areas and sump capacity shall be designed keeping 50% safety	Noted for compliance. Work for establishment of mine started from 06 th June 2020 and likely to be completed by

	margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity shall also be provided adequate retention period to allow proper settling of silt material.	the end of FY 2022-23.
(viii)	Water sprinkling system shall be provided to check fugitive emissions from loading operation, conveyor System, haulage roads, transfer points, etc. Mobile sprinklers shall be provided in major haul roads and with high levels of PM10/PM25.	Noted for compliance. Water sprinkling system shall be provided at coal stock yard and coal transport yard. It is expected to provide a dust suppression system before the commencement of coal production i.e. by the end of FY 2022-23.
(ix)	Major approach roads shall be black topped and properly maintained A 3-tier plantation using native which are effective as a shield in trapping fugitive dust shall be developed along all major roads near CHP, coal bunker, infrastructure. A mist spray water sprinkling system shall be installed at the CHP and At transfer points.	Complied. Major approach roads have been black topped in the FY 2021-22. A three tier plantation system shall be provided. Presently avenue plantation of 800 trees has been carried out at the periphery of the mine. A mist spray fogger cannon system shall be provided in the coming year, by March 2023 before commencement of coal production.
(x)	Drills shall be wet operated only to avoid fugitive dust emissions.	In U/G mine drilling in coal faces is done by portable hand held electric drill machine duly approved by DGMS and is wet operated to avoid dust emission.
(xi)	Areas along roads, infrastructure, along ML boundary and township outside the lease area etc. shall be Developed as green belt by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Plantations shall be carried out Immediately after the onset of monsoon.	Noted for compliance. Avenue plantation of 800 trees has been carried out at the periphery of the mine.
(xii)	Regular monitoring of groundwater level and quality of the mine area and the surrounding village in the Impact zone shall be carried out by establishing a network of existing wells and construction of new piezometers. 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. Parameters such F, TDS shall be also monitored and if levels are found to be high shall be treated before discharging in to surface water/ land . Data thus collected shall be submitted to the Ministry of Environment & Forest and to the Central Pollution Control Board quarterly within one month of monitoring.	Regular groundwater monitoring, as specified in EC is being done through a certified agency- Anacon Laboratories. Other mines of WCL are in operation in the surrounding region. Annual groundwater monitoring reports and groundwater quality reports are submitted regularly to MOEF Regional Office and CGWB Regional Office. Groundwater monitoring report for period Nov'21 to Oct'22 is enclosed.
(xiii)	The company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring of water table indicates a declining trend. The project authorities shall meet water requirement of nearby villages (S) in case the village wells go dry due to dewatering of Mine.	Noted for compliance. Water will be supplied to nearby villages through water tanker as and when required by the villagers.
(xiv)	Mine discharge water particularly TDS shall be treated	Noted for compliance. Work for

	to conform to prescribe levels before discharge in to the natural environment.	establishment of mine started from 06 th June 2020 and likely to be completed by Mar'2023. Arrangements for treatment and monitoring of mine water discharge to conform to the prescribed norms shall be made.
(xv)	ETP shall also be provided for treatment of effluents from workshop and the treated effluents shall be used for green belt development. Mine discharge water particularly TDS shall be treated to conform to prescribed levels before discharge into the surface water/agricultural use.	This is a UG mine and there is no HEMM involved. Hence not applicable. For treatment of Mine water discharge to the prescribed levels Sedimentation tank of required capacity shall be constructed.
(xvi)	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 if any through any health agency / Institution in the district/state within a period of one year and the result reported to this ministry and to DGMS.	The Area hospital of Kanhan Area is having well equipped computerized PME center. PME shall be carried out once in a five year for workers of age below 50 years and every 2 ½ year for those aged between 50-60 years. PME conducted for WCL, Kanhan Area employees which currently has three active mines-Ambara OC, Mohan UG and Tandsi UG. PME conducted- 818 nos of employees and workers during the FY 2021-22 against a target of 786 nos.
(xvii)	For monitoring land use pattern and for post mining land 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 Bhopal.	Land use monitoring report based on satellite imagery for PENCH-Kanhan-Tawa valley coalfield is prepared by CMPDIL and uploaded on the company website. The report for the year 2020 can be accessed through the following weblink- http://103.59.142.228:8081/wclweb/TPK_C_F_2020.pdf The same has also been submitted to MOEF.
(xviii)	A final Mine closure plan along with details of corpus fund shall be submitted to the ministry of Environment & forests within 6 month of grant of environment clearance.	Noted for compliance. Mine Closure plan is a part of the approved PR of the mine. Sharda UG mine has a provision of Rs. 868.12 Lakhs as Mine Closure Cost as per the revised Mine Closure Guidelines dated 29 th May 2020. Escrow account for Sharda UG mine has been opened in the FY 2020-21. Total Amount deposited in Escrow account of Sharda UG mine is 42.95 lakhs till date and balance as on 31/03/22 is INR 43,57,435/-
(xix)	The project proponent shall undertake a socio economic survey for identifying and taking up need Based specific socio economic activities/programmes/schemes which are required in the area Monitoring of the impacts of	The activities under CSR shall be carried out as per the requirement of Local Gram Panchayat/ Sarpanch.

	activities under CSR shall be carried out periodically Educational Center shall be established in the area to create awareness and for organizing workshops etc.	
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B	General Condition	
(i)	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	Noted for compliance.
(ii)	No change in the calendar plan including excavation quantum of mineral coal and waste shall be made.	Noted for compliance.
(iii)	Four ambient air quality monitoring stations shall be established in the core zone as well as in the Buffer zone for PM10 PM2.5 SOX and NOx 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.	Four ambient air quality monitoring stations has been decided at following points with consent of SRO (MPPCB) for core zone as well as buffer zone for monitoring when mining commences: <ol style="list-style-type: none"> 1. Near incline, Pit Office 2. Near residential houses, east side 3. Tattarwara Village 4. Ambara Village However, monitoring shall be commenced from FY 2022-23. In addition to this, for Air Quality monitoring purpose, CAAQMS has been commissioned from Nov'21 at a cost of 66.06 lakhs in the buffer zone of the Sharda UG mine, which is a common station for other nearby mines Ambara OC and Mohan UG mine of Kanhan Area, WCL.
(iv)	Fugitive dust emissions (PM10 2 nd PM2.5) from all the source shall be controlled regularly monitored and date recorded properly water spraying arrangement on haul roads wagon loading dump trucks (loading & unloading) points shall be provided and property maintained .	Noted for compliance. Mine establishment work is in progress like drivage of inclines, construction of office buildings etc. Mine likely to commence by the end of FY 2022-23.
(v)	Data on ambient air quality (PM10 PM2.5 Sox and NOx) shall be regularly submitted to the ministry Including its regional office at Bhopal and to the state pollution control board and the Central Pollution Control Board once in six months	Noted for compliance. Environmental monitoring including air quality monitoring shall be carried out in accordance with GSR 742 (E) dated 25.09.2000. In addition to this, for Air Quality monitoring purpose, CAAQMS has been commissioned from Nov'21 at a cost of 66.06 lakhs in the buffer zone of the Sharda UG mine, which is a common station for other nearby mines Ambara OC and Mohan UG mine of Kanhan Area, WCL.
(vi)	Adequate measures shall be taken for control of noise	Noted. This condition is not applicable to

	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.	the mines as there is no usage of HEMM machine. However the haulages, belt conveyor etc. are deployed in U/G. The noise level control measures in U/G are covered vide CMR 1957 and the prescribed norms shall be adhered to.
(vii)	Industrial wastewater (workshop and wastewater from the mine) shall be property collected treated so to as to conform to the standards prescribed under GSR 422 (E) dated 19 th May 1993 and 31 st December 1993 or as amended from time to time before discharge Oil and grease trap shall be installed before discharge of workshop effluents.	Noted. This is a UG mine and no HEMM shall be used. Hence, provision of Oil and Grease trap is not required. Environmental standards for mine water discharge shall be diligently followed.
(viii)	Vehicular emissions shall be kept under control and regularly monitored Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.	Noted. All light vehicles like jeep, school buses, Ambulance used for mining activity will have valid PUC certificate and the coal transporting vehicle shall be covered with tarpaulins.
(ix)	Environmental laboratory shall be established with adequate number and type of pollution monitoring and analyses equipment in consultation with the state pollution control board.	Well established environmental laboratory exist at CMPDI, Nagpur which is also NABL accredited. This laboratory shall be utilized for monitoring and analysis of air/mine water/ noise samples at the mine site.
(x)	Personnel working in dusty areas shall wore protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to Observe any contraction due to exposure to dust and to take corrective measures if needed and records maintained thereof.	<p>All workmen shall be provided with protective wear as per statute. Occupation health survey i.e. PME shall be carried out once in a five years for workers of age below 50 years and 2 ½ year for those aged between 50 to 60 years.</p> <p>60 years.</p> <p>PME conducted for WCL, Kanhan Area employees which currently has three active mines-Ambara OC, Mohan UG and Tandsi UG.</p> <p>PME conducted- 818 nos of employees and workers during the FY 2021-22 against a target of 786 nos.</p>
(xi)	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive who will report directly to the Head of the Company.	There is a well established environmental cell at corporate HQ headed by GM (Env) reporting to Director (Tech) P&P. He is assisted by well qualified and trained team of Engineers of Mining, Civil and environment discipline. At Area level, the team is headed by GM (Operations) and assisted by Area Nodal Officer (Env). At project level the team is headed by Sub Area Manager of the project and is assisted

		by project Nodal Officer (Env).
(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 Regional Office at Bhopal.	Funds earmarked for environment are kept separate and are not utilized for any other purpose. Capital and revenue expenditure for environment related works is reported to the Ministry and MPPCB through six monthly reports and Environment Audit Statement respectively.
(xiii)	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated Condition the project authorities shall extend full cooperation to the office (s) of the Regional Office By furnishing the requisite date/ information/ monitoring reports.	Shall be complied.
(xiv)	A Copy of the will be marked to concerned Panchayat /local NGO if any from whom any suggestion representation has been received while processing the proposal.	Complied. Copy of letter enclosed.
xv)	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office District industry centre and collectors Office /Tahsildar s Office for 30 days.	This is for MPPCB.
(xvi)	The Project authorities shall advertise at least in two local newspaper 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 http://tender.nic.in	Complied. Copy of advertisement is enclosed
3	The ministry or any other competent authority may stipulate any further condition for environmental protection.	Noted for compliance.
4	Failure to comply with any of the condition mentioned above may result in withdrawal of the clearance and attract the provisions of the Environment (Protection) Act. 1986..	Noted for compliance.
5	The above condition will be enforced inter- alia, under the provisions of the Water (Prevention & Control of Pollution) Act 1974, the Air (Prevention & Control of Pollution) Act 1981, the Environment (Protection) Act, 1988 and the Public Liability Insurance Act, 1991 along with their amendments and Rules.	Noted for compliance.