



WESTERN COALFIELDS LIMITED

MAJRI AREA

**NAVIN KUNADA OPENCAST
COAL MINE EXPANSION PROJECT**

**SIX MONTHLY
EC COMPLIANCE REPORT**

AS ON 30th September 2022

PART- IV

Project : Navin Kunada Opencast Coal Mine Expansion Project.
Clearance letter No. : J-11015/315/2006-IA.II (M)
Date : 21st March 2007

1. SPECIFIC CONDITIONS			
Sl.No	Conditions	Compliance	
i.	Mining shall be carried out as per statuette at a safe distance from the Wardha river flowing adjacent to the lease boundary.	Mining discontinued and The quarry edge is about 1200 m away from the left bank of Wardha River.	
ii.	The embankment constructed along the river shall be of suitable dimensions and stabilized with plantation so as to withstand the peak water flow and prevent mine inundation.	The embankment is 30 m at top, 50 m at bottom. The Top RL is 198 m i.e. 6.0 m above HFL (192.0 m). Plantation done over embankment so far is 15,000 nos.	
iii.	Top soil should be stacked properly with proper slope at earmarked site(s) and should not be kept active and shall be used for reclamation and development of green belt.	Top soil has been stacked at earmarked site covering 6.95 Ha & shall be used for carpeting over backfilled area for plantation.	
iv.	OB should be stacked at earmarked external dumpsite within ML area and shall be a maximum height of 60 m only and consist of four benches of 15 m each. The ultimate slope of the dump shall not exceed 28 degree. Monitoring and management of reclaimed dumpsite should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to Ministry of Environment & Forest and its regional Office located at Bhopal on yearly basis.	OB is stacked at earmarked sites at four places. The details are as follows:-	
		S.N.	Dump
		Area	Height
		1.	D1- External OB Dump
		56 Ha	35 m
		2.	D2- Backfilled Dump NKOC
		46 Ha	7 m (from GL)
		3.	D3- Backfilled Dump Sirna OC
		40 Ha	35 m (from GL)
		4.	ND1-External OB Dump NKOC
		10 Ha	10 m
v.	Catch drain and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drain should be regularly desilted and maintained properly. Garland drains (size, gradient and length) and sump capacity should be designed keeping 50% safety margin and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provided adequate retention period to allow proper settling of silt material.	Catch drains around OB dumps has been made. Drains are de-silted before onset of every monsoon. Cross drainage provided on OB & coal benches guiding entire seepage water to the sump provided at the floor of the seam of size (i) 300 x 20 x 5 m (ii) 140 x 20 x 5 m. The sump capacity is sufficient to allow adequate retention time for proper settling of suspended particles. Garland drains has also been provided around the mine and de-silted before onset of monsoon.	
vi.	Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.	Since silt & sediments are naturally drained to the sedimentation pond made out of mine de-coaled area, therefore, construction of retaining wall at the toe of OB dumps & benches is not required. The same is subsequently diverted to the surface sedimentation tank.	

vii.	Additional sedimentation tank shall be constructed to handle the additional mine discharge, particularly during rainy season.	Additional sedimentation tank has been constructed to handle additional discharge.
viii.	Drills should be wet operated only. Wet drilling shall be adopted within one year even in the existing mine.	Since there is no Coal reserve in the mine, mine is closed.
ix.	Controlled blasting should be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.	Since there is no Coal reserve in the mine, mine is closed.
x.	High efficiency bag filters/water sprinkling system should be provided to check fugitive emissions from CHP, crushing operations, conveyor system, haulage roads, transfer points, etc.	Since there is no Coal reserve in the mine, CHP (crushing operations, conveyor system, haulage roads, transfer points, etc) are no in operation as mine is closed
xi.	Black topping of coal transportation road shall be done.	Black topping of coal transport road for approx. 3.60 km length has been done.
xii.	Fixed sprinklers shall be provided at the new and old coal stock yard.	Since there is no Coal reserve in the mine, mine is closed.
xiii.	An area not less than 149 ha shall be brought under Afforestation which includes reclaimed external OB dump (67 ha), backfilled area (45 ha), along ML boundary, along roads and infrastructure (2 ha), green belt, embankment (13.05 ha), vacant land (14 ha) and area in township located outside the lease by planting native species in consultation with the local DFO/ Agriculture department. The density of the trees should be around 2500 plants per ha.	<p>Details of tree plantation done till date are as follows:-</p> <ol style="list-style-type: none"> 1. Reclaimed external OB dump – 4.0 2. Backfilled area – Nil 3. Along ML boundary – Nil 4. Along roads & infrastructure - Nil 5. Green belt - Nil 6. Embankment – 21.5 Ha 7. Vacant land – 8.0 Ha 8. Area in township located outside the lease – Nil <p>The plantation is being carried out by FDCM Ltd & Madhya Pradesh Rajya Van Vikas Nigam Ltd., both State Govt. undertaking under the supervision of forest experts.</p>
xiv.	A Progressive Mine Closure Plan shall be implemented by reclamation of quarry area of which 45 ha shall be backfilled and afforested by planting native plant species in consultation with local DFO/Agriculture Department. The density of the trees should be around 2500 plants per Ha. The balance 52.60 ha of de-coaled void, which is being converted into water reservoir, shall be gently sloped along the upper benches, terraced and reclaimed with plantation. The outer periphery of the water body shall be fenced.	<p>During FY 2022-23, an amount of Rs 0.00 has been deposited in Escrow account (A/c no. 08973161009767 (Renewed)). Progressive Mine closure claim of Rs 17.76 crores for the period 2011-12 to 2015-16 is reimbursed.</p> <p>Balance as on 31.03.2022 is Rs 13,8,800,981.20</p>

xv.	Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity should 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 should be submitted to the Ministry of Environment & Forests and the Central Pollution Control Board quarterly within one month of monitoring.	Well water monitoring for assessing the ground water level in the villages of buffer zone is being carried out through M/s Ecomen Laboratories Pvt. Ltd., Lucknow. Report of the period December 2019 to July 2021 monitoring has been submitted to your good office vide our letter no. WCL/MA/AGM/ENV/2021/263 dated 16.11.2021 through e.mail dated 18.11.2021
xvi.	The company shall put up artificial groundwater recharge measures for augmentation of groundwater resources. The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to de-watering of the mine.	Arrangement has been made for artificial ground water recharge measures & adopted rain water harvesting for various infrastructure, buildings. The project will provide drinking water to the nearby villages in case of village wells go dried due to dewatering of the mine. At present there is no such case.
xvii.	ETP should also be provided for workshop and CHP waste water.	Mine is closed as the reserves are exhausted
xviii.	The company shall obtain approval of CGWA/CGWB Regional Office for use of groundwater for mining operations.	No ground water is being used for mining operation.
xix.	Digital processing of the entire lease area using remote sensing technique should be done regularly once in 3 years for monitoring land use pattern & report submitted to Ministry of Environment & Forests & its Regional Office at Bhopal.	Complied. Land use pattern monitoring of Navin Kunada OC Mine has been done in year 2021 and report of same is uploaded on WCL Website.
xx.	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 & hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of two year & the results reported to this Ministry & to DGMS.	Noted for Compliance
xxi.	R & R of village Navin Kunada shall be completed within the specified time schedule and shall be not less than that of the National R & R Policy.	Compliance already submitted along with last report
xxii.	Consent to operate shall be obtained before expansion in production.	Consent to Operate granted upto 31.03.2020 for mine closure activities.
2.	GENERAL CONDITIONS	
Sl.No	Condition	Compliance
i.	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.	Noted.
ii.	No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.	Noted.

iii.	Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for SPM, RPM, SO ₂ , NO _x monitoring. Location of the stations should be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.	Post mine closure monitoring for 3 years has been completed.
iv.	Fugitive dust emissions (SPM & RPM) from all the sources should be controlled, regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading & unloading) points should be provided and properly maintained.	Since, the mine is closed, there is no fugitive emission from mine due to mining activity (coal transportation roads, coal stock yard etc.)
v.	Data on ambient air quality (SPM, RPM, SO ₂ , NO _x) should be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board & the Central Pollution Control Board once in six months.	Reports on ambient air quality are being submitted to MPCB Chandrapur quarterly. The same is also submitted to MOEF, Regional Office, Nagpur along with Six monthly report.
vi.	Adequate measures should 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 should be provided with ear plugs/muffs.	Mine is closed and there is no such activity going on which leads to heavy work place noise atmosphere. However, if the workers engaged in noisy environment are provided with ear plugs/muffs.
vii.	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422(E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.	Since, mine is closed hence there is no industrial waste water (workshop and waste water from the mine) generated from the mine.
viii.	Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins & optimally loaded.	All the light vehicles namely Jeep & trucks etc. are having valid PUC certificate for vehicular emission through RTO approved agency. Vehicles used for transportation of coal are covered with tarpaulin & optimally loaded as per the carrying capacity.
ix.	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.	A full-fledged environmental laboratory under CMPDIL exists at Nagpur, which monitors all the mines of WCL including this mine.

x.	<p>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.</p> <p>Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.</p>	<p>Personnel working in dusty areas are provided with dust masks. The workers are given training/ refresher training in VTC on safety and health aspects which is also a statutory requirement under Mines Act 1952.</p> <p>Periodic medical Examination for all workers once in every five years is carried out and records maintained to observe any disease and to take corrective measures, if needed.</p>
xi.	<p>A separate environmental management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the head of the company.</p>	<p>Environment Cell exists at HQ, Area, & project level. GM (Environment) of HQ directly reports to the head of the Organization.</p>
xii.	<p>The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to this Ministry and its Regional Office at Bhopal.</p>	<p>Funds have been earmarked for environment protection measures and is kept in separate account and is not diverted for other purpose. Expenditure incurred on environment measures has been given in the enclosed Part -III document.</p>
xiii.	<p>The Regional Office of this Ministry located at Bhopal 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.</p>	<p>Noted.</p>
xiv.	<p>A copy of clearance letter will be marked to concerned Panchayat/ Local NGO if any, from whom any suggestions/representation has been received while processing the proposal.</p>	<p>Copy of clearance letter has already been sent to Gram Panchayat vide our letter no. WCL/MA/SAM/COCSA/ 2007/26 dated 13.06.2007 & WCL/MA/ CGM/ENV/ 2007-08/141 dated 17.08. 2007.</p>
xv.	<p>State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Center and Collector's Office/ Tahasildar's Office for 30 days.</p>	<p>Clearance letter sent to MPCB for display vide our letter no. WCL/MA/CGM/ENV/ 2007-08/140 dated 17.08. 2007.</p>
xvi.	<p>The project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in 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 web site of the Ministry of Environment & Forests at http://envfor.nic.in.</p>	<p>Complied. . Advertisement given in following 2 Newspapers:-</p> <ol style="list-style-type: none"> 1. The Hitwada (English), Nagpur dated 18.04.2007 2. Mahavidarbha (Marathi), Chandrapur dated 19.04.2007 <p>Copies of the advertisements already submitted alongwith last report.</p>
3	<p>The ministry or any other competent authority may stipulate any further condition for environmental protection.</p>	<p>Noted.</p>

4	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.	Noted.
5	The above conditions will be enforced <i>inter alia</i> , 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.	Noted.


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 Navin Kunada Opencast Coal Mine
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 Majri Area, WCL