E.M.P. COMPLIANCE REPORT

(01-04-2022 to 30-09-2022)

AS ON 01-10-2022

EXPANSION OF BALLARPUR U/G COAL MINES CONSISTING PROJECT



MANNA INCLINE &
NANDGAON UNDERGROUND MINE.

HINDUSTAN LALPETH SUB AREA

WESTERN COALFIELDS LIMITED CHANDRAPUR AREA

PART - IV

Project : Expansion of Ballarpur U.G. coal mines consisting

Manna Incline and Nandgaon Incline U/G mines.

Environmental Clearance : For Coal Production Capacity of 0.76 Million Te./Y.

Ref. No. - : J-11015/31/2009-1A,II(M) dtd 22-07-2009

COMPLIANCE REPORT AGAINST ENVIRONMENTAL CLEARANCE

Sl.	A. Specific Conditions	Compliance
i)	No mining shall be undertaken in forestland until forestry clearance has been obtained	Noted
ii)	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structures, 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 materials. Cracks shall be effectively plugged with ballast and clayey soil/suitable material	The C.M.R.S. team Dhanbad investigate subsidence all panel of cover within a depth. The cover of N.I Panel E1= 159.50 to 184.22 mtr, working face & M.IPanel B = 67.50 mtr to 140.50. The present working of N.I. Panel running at a depth of 219.00 mtr and M.I. mtr running at a depth of 110.00 mtr respectively and till date there is no subsidence observed however regular monitoring of subsidence shall be taken over the working panels and if any cracks is observed it shall be effectively plugged with ballast and clayey soil/suitable material. The depillaring is carried out after taking due permission from DGMS. All conditions with respect to precautionary measured as well as monitoring. Etc are stipulated in the permission letter & are adhered to during actual depillaring operations in the mine. The implementation of the stipulated conditions are also monitored by DGMS
iii)	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.	Noted
Iv)	Coal extraction shall also 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
v)	Subsidence shall be monitored closely and if subsidence is found exceeding the permitted limits, than the landowners shall be adequately compensated with mutual agreement of the landowners.	At present no subsidence observed.
vi)	Garland drain (size, gradient & length) around the safety areas such as mineshaft and low lying areas and sump capacity shall be designed keeping 50% safety margin over an above the peak	Compliance / ATR: In u/g mine, there is only one entry point i.e. mine inclines/shaft. As per the provisions of Coal Mines Regulation 1957. No 126 & No127 the mine entry level are made of least 3m above the HFL for protecting the mine against surface inundation. The same has already been taken in this mine. As already mentioned, the mine is being worked by

	sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provided adequate retention period to allow proper setting of silt material.	Board & pillar involving hydraulic sand stowing, as such there is no adverse impact on surface due to subsidence. The garland drains have been made as per the statute around the mine entries & are desilted before onset of every monsoon. The sump has been made in u/g workings of the dip most point where entire strata seepage water as well as monsoon water gets accumulated and the size of the sump is large enough to accommodate 50% over the peak sudden rainfall in the adjoining areas. Further sump has got capacity to allow adequate retention period (4-6 hr.) for setting of suspended coal particles (in u/g water there is no other silt material)
vii)	Water sprinkling system shall be provided to check fugitive emissions from loading operations, conveyor system, haulage roads, transfer points, etc Mobile sprinklers shall be provided in major haul roads and with high levels of SPM/RSPM	No. mobile tanker provided for water surveying on coal transport rods and coal stock yard. Fixed sprinklers provided at; N.I. – CHP & transportation road CHP to way bridge Sprinkler. M.I. – CHP coal stock yard provided 6 rain guns.
viii)	Major approach roads shall be black topped and properly maintained. A 3-tier plantation 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.	Approach road to Manna Incline is black topped 1.3 Km and properly maintained. Plantation is provided near pit top. M.I. = 20,000 Plantation. N.I= 600 Plantation.
ix)	Drills shall be wet operated only to avoid fugitive dust emission.	Drills shall be wet operated only to avoid fugitive dust emission. Compliance/ATR:- As already explained, the mines under consideration are u/g mines where entire coal mining operations including drilling are carried out below ground only. There is no drilling on surface. The u/g drilling operations are carried out by hand held / portable electrical drilling machines (Which are duly approved by DGMS for use in u/g) The drilling operations are carried out in u/g coal faces as per the provisions of Coal Mines Regulation 2017 & allied DGMS circulars. The coal faces are made wet before drilling operations start. Moreover the ventilation in coal faces are adequately maintained as per the provisions of Coal Mines Regulation 2017. As such there is no chance of fugitive dust emission due to drilling.
x)	A progressive afforestation plan shall be prepared and implemented over the mine lease area and shall include areas under green belt development areas along roads, infrastructure, along ML boundary and township outside the lease area etc. by planting native species in consultation with the local DFO/Agriculture department. The density of the trees shall be around	Compliance /ATR:- The mines under consideration are u/g mines and plantation works are taken up in Surface Right area only (the area where mine entries & surface infrastructures are built.) The plantation is taken up through Forest Development Corporation of Maharashtra/ Madhya Pradesh Rajya Van Vikas Nigam. The plantation species are native species. Till date plantation done is 20600 nos @ 2500 plants/ha.

	2500 plants per ha.	
xi)	Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new peizometers. 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 and tot eh Central Pollution Control Board quarterly within one month of monitoring.	Compliance/ATR:- Regular monitoring of ground water level in villages in the buffer zone is being carried out 4 times in a year as specified in the EC letter, Similarly, quality parameters are also being monitored once in a year. The report of the same for the period 1 st & 3 rd Quarter 2021 is enclosed herewith for your ready reference. The same has been submitted CGWB. Regional Office, Nagpur.
xii)	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 village (a) in ease the village well go dry due to dewatering of mine.	As indicated earlier the present workings are confined to a depth of N.I. panel F1 = 184.22 mtrs and M.IPanel B= 140.50 mtrs there is no adverse impacts (cracks etc) observed on surface in the U/G Mines there is no adverse impact on shallow aquifer being harnessed by surrounding population . As such within the mine premises (Leasehold) or in the immediate surrounding there is handle any need of rainwater harvesting or any artificial recharge However most of the mine discharge water is recirculated for sand stowing purpose and balance is used for filter plant from the filter plant the water is supplied to local population near Nandgaon incline.
xiii)	Mine discharge water particularly TDS shall be treated to conform to prescribed levels before discharge into the natural environment.	TDS in mine wear discharge is within permissible limit.
xiv)	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, Ahmedabad within a period of one year and the results reported to this ministry and to DGMS.	WCL is having occupational health committee at the corporate (HQ) level as well as at the unit (Area/Project level) At corporate level, the committee consist of the following: Chief General Manager (Safety) Chief of Medical Services Periodical Medical Examination (PME) In-charge of HQ. The committee scrutinizes the report of the area every quarter.
		At Unit level, the committee consists of the following – • General Manager (Operation) • Area Medical Officer • Area Safety Officer • Periodical Medical examination (PME) Incharge of Area. The above committee takes the review at area level every

month. There are 11 hospitals having PME centre in the hospitals. The PME Centre are well equipped with Spiro meter (Lung Function test), Audiometer (for testing hearing impairment) along with the facilities for X-Ray & other bio-chemical test.

The details are as follows:

Periodical Medical examination (PME) centers 11 (Occupational Health Centers)

- Nos of Doctors engaged in periodical medical Exam. 11
- Nos of Doctors trained in periodical medical Exam. 22
- Nos. of X-Ray machines (300 mA) 09
- No.s of X-Ray machines (500 mA)02
- * Nos of ILO film tests 10
- * Nos of Audiometer units 07 (4 units are under process of procurement)
- * Nos of Spiro meter units 08 (3 units are under process of procurement)
 - Nos. of pathology Labs 11
 - Nos. of X- Ray technicians 14
 - Nos of Laboratory Technicians 22

All the PME centre are fully computerized

As per the statute/Mines Act, 1952 all the workers are examined every five years and the disease profile is maintained in PME centre in different colour codes as given below:

- Yellow card Hypertension
- Green card Diabetes
- Red card Ischemic Heart Disease

The pneumoconiosis cases are also followed up regularly by the PME centre. Recently WCL has started PME every two and half years for underground workers between the age group of 50 to 60 years

The mineworkers who have been det3cted with hypertension or diabetes or Ischemic heart disease, the records of those workers are well maintained are advised to attend OPD regularly. Attendants of the patient are also advised to take care regarding the diet and medication of the patient.

Workers exposed to high decibel machineries i.e. more than 90 decibels and are found to have developed hearing impairment, are subjected to repeated audio-metric tests. Chronic obstructive pulmonary disease cases are followed by regular pulmonary functions tests.

Unsuitable cases, as per the recommendation of the Apex medical Board, the change of job is also suggested implemented accordingly.

In addition, the Welfare Board of WCL time to time

		makes visits to different area hospitals and PME centre so as to take stock of the ground realities.
		WCL is one of the nominee inn the Governing Body of the National Institute of Miners Health (NIMH) An autonomous institute under ministry of coal & mines, Govt. of India Nagpur
		Recently, NIMH has asked WCL for intervention study in coalmines of WCL
		WCL has already given consent to NIMN regarding carrying out the above-mentioned study.
		The subject work by NIMH has already been started in two mines of WCL. The workers, those are detected having lung diseases and hearing impairment, they are kept on constant monitoring & supervision under physicians and they are advised for periodical check ups and necessary pulmonary function tests and audiometer test are done time to time. NIMH is also going to help WCL in such cases As such, help from organization such as NIOH may not be required at present.
		As such, it is requested to waive of the condition of carrying out occupational survey through NIOH, Headband This matter has already been taken up with MOEF & the copy of the letter is enclosed herewith.
xv)	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.	Complied. Land use monitoring through satellite imagery is carried out every three years and report of the same is uploaded on our website. The latest copy of such report is available at - http://www.westerncoal.in/images/Wardha_valley_CF_2019.p
xvi)	A final mine closure plan along with details of corpus fund shall be submitted to the Ministry of Environment & Forests 6 months of grant of environment clearance.	As per present production target the life of mine is 06 Month M.I. & NI. 11 Years. A final mine closure plan 5 years in advance shall be submitted to the ministry of environment and forest for approval.
xvii)	The project proponent shall undertake a socioeconomic survey for identifying and taking up need based specific socio-economic activities/ programmes/ schemes, while are required in the area,	1. construction of 200 mt. road (WBM) at Arwal village under CD at HLSA = Rs. 2.78 Lakh 2. Providing & laying 100 mm dia G.I. pipeline from old manager office to HLC Basti No. 4 at HLSA = Rs. 4.88 Lakh

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Monitoring of the impacts of activities under CSR shall be	
	mandir Babupeth at HLSA = Rs. 1.60 Lakh
carried out periodically.	4. Construction of shed (Hal) at Shamchan Bhumi
Educational centers shall be	Pathanpura near Arwat village at HLSA
established in the area to create	=Rs. 1.47 Lakh
awareness and for organizing workshops, etc.	5. Extension & development of 2 Nos class room of Telgu high school = Rs. 5.36 Lakh
, vermonopo, esc.	6. Providing cart concrete road from Mohurle house to
	Gourkm house at Babupeth under HLSA (under SC/ST Plan) = Rs. 1.75 Lakh
	7. Provision of 4 No. Bore-well near sitaram Bhuhuriyu
	housa, pt Dindayal nagar Daya Nagar, Sai Baba Temple.
	= Rs. 2.06 Lakh
	8. Malaing concrete road at Dhidsi Village under SC/ST
	= Rs. 4.67 Lakh
	Replacement of damaged drinking water G.I. pipe line
	from railway under bridge and old HLC bunker for basti
	No. 1,4,3 (under CSR) at HLSA,
	Rs. 13.79 Lakh
	Repair and tarleting of rope of HLC Telgu School (under
	CSR) at HLSA Rs. 1.25 Lakh
	Providing 2 nos hand pumps at Babupeth Gauri Talav
	ward near Boudha Vihar and near Mahakali Mandeer app.
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	To Dr. Paliwar Hospital under HLSA Rs. 1.05 Lakh
	Construction of 2 No. Borehole of N. I. Village for
	drinking water to Rs
	10. Construction of community hall at Nandgaon village
	Rs

D	Cananal Canditions	Compliance
В.	General Conditions	Compliance
i)	No. change in mining technology	The mine is running as per Coal Mines Regulations 1957 and
	and scope of working shall be made	circulars and guide line issued from Director General of Mines
	without prior approval of the	Safety Regular permission is taken from Director of Mines
	ministry of Environment & Forest.	Safety and conditions of permission is strictly followed if
		there is change in mining technology prior approval of due
		ministry of environment & forest shall be taken.
ii)	No change in the calendar plan	
,	including quantum of mineral coal	Noted
	and waste shall be made.	
iii)	Four ambient air quality monitoring	Ambient air quantity monitoring stations are fixed within
/	stations shall be established in the	mining lease area in consultations with the state Pollution
	core zone as well as in the buffer	Control Board the locations are given below.
	zone for monitoring SPM, RSPM,	Sr.No. Location Details Location Code
	SO2, NOx. Location of the station	1. Manager Office CNUA-1
	shall be decided based on the	2. Residence CNUA-2
	meteorological data, topographical	Regular monitoring is done by authorized agency central
	features and environmentally and	mine planning & design Institute Ltd. Kasturba Nagar,
	ecologically sensitive targets in	Jaripatka Nagpur & quarterly reports are submitted to
	consultations with the State	state pollution control board.
	Pollution Control Board. Monitoring	3. Manna Incline CNUA-3
	of heavy metals such as the As, Ni,	4. Manna Village CNUA-4
		1
	Cd, Cr, in SPM and RSPM etc. shall	Ambient air quality report for the period August-2022

iv)	Data on ambient air quality (SPM, RSPM, SO2, & NOx and heavy metals such as the As, Ni, Cr. Etc) shall be regularly submitted to the Ministry including its Regional Office at Bhopal	submitted vide email wclchaenv@gmail.com Dt. 03/10/2022 Monitoring report for heavy metals submitted for period June 2022 vide email wclchaenv@gmail.com Dt. 15/09/22 Compliance /ATR:- The monitoring data on ambient air quality for April2022 To Sept2022 , are enclosed herewith for ready reference. The same reports are regularly submitted to SPCB also.
	and the State Pollution Control Board and the Central Pollution Control Board once in a six months. Random verification of samples through analysis from independent laboratories recognized under the EP Rules 1986 shall be furnished as part of the compliance report.	
v)	Adequate measures shall be taken for control of noise levels below 85 dBA in environment. Workers engaged in blasting and drilling operations, operations of HEMM, etc shall be provided with ear plugs/muffs.	This is an underground mine and there is no HEMM. All machine & haulages, belt conveyors, Side discharge loaders are deployed in U/G. The noise level control measures in and underground working are (covered) under CMR 1957 as well as DGMS (Tech.) circular.
vi)	Industrial waste water (Workshop and waste water from the mine) shall be properly collected, treated so 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 & grease trap shall be installed before discharge of workshop effluents.	This is an U/G mine and there is no HEMM. As such there is no workshop with washing facilities for HEMM. (Pit head workshop provided with lathe machine, hence there is no question of effluent from workshop. There for the regular providing oil & gas for workshop does not alive. The mine pumped out water is monitored every night as per EPA of 2000.
vii)	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulin and optimally loaded.	Vehicular emissions is under control vehicular used for transportation of mineral is strictly covered with tarpaulin and optimally loaded.
viii)	Appropriate measures shall be taken to avoid hazards of fire and explosions due to methane gas.	Complied
ix)	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 analyses through a laboratory recognized under EP Rules, 1986	Complied copy of Monitoring is done by CMPDIL on fortnightly basis 4 Nos. of Air maintaining fixed & regular maintaining by CMPDIL 4 Nos. Water monitoring (Mine Discharge) 2 Nos. Noise station Report submitted to MOEF & MPCB April-2022 To Sept2022
x)	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and	Since it is an underground mine and extraction of coal is done with hydraulic sand stowing maximum working faces remain wet. If any working face is found dry and dusty, it is sprayed with water with existing spraying arrangement.

	information on safety and health aspects. Occupational health succulence program of the workers shall be undertaken periodically to observe any contradictions due to exposure to coal dust and take corrective measures, if needed.	Adequate training and information on safety and health is regularly given to the workers. Moreover, the working environment in an underground coal mine is totally governed by the provisions of CMR-2017 and related technical circulars issue by DGMS from time to time. The implementation of all the provisions of control dust pollution of workmen as stipulated in the CMR-2017 (with special reference to this mine) are also monitored by training of workman enclosed in U/G working, the provision of Vocational Training Rules formed under Mines Act 1952 are adhered to the occupation health survey programme is also covered under statute and every worker is subjected to periodic medical examination once in 5 years and workers engaged in U/G mines and having age above 50 years are examined once in 2 years Based on the results of periodic medical examination appropriate medical care & assistance is given to the affected worker.
xi)	A separate environmental call 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	At project level Environmental Management cell is headed by Sub Area Manager and is assisted directly by project Nodal Officer (ENV) SE at area level. Chief General Manger heads the cell assisted by Area Nodal Officer (ENV) at W.C.L., H.Q. / Corporate level HOD(ENV) heads the environmental deportment assisted by multi disciplinary team of qualified and trained engineers.
xii)	The finds 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 the Ministry and its Regional Office at Bhopal.	Separate funds for environmental protection measures shall be dept and year wise expenditure for the same shall be reported to the ministry and its Regional Office located at Bhopal.
xiii)	The Project authorities shall advertise at lease in two local news papers widely circulated around the project, one of which shall be in the vermicular language of the locality concerned within seven days of the clearance letter information 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 website of the Ministry of Environment & Forests at http://envfor.nic.in.	July 2011 – Marathi – Mahavidarbha July 2011 – English – Hitawada July 2011 - Hindi - Mahavidarbha
xiv)	A copy of environmental clearance letter be marked to concerned panchayat /Zila Parishad/Municipal Corporation or Urban Local Body/local NGO. If any from whom and suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website	Copy of EC submitted to CO-NP/CHA & Sarpanch – Nandgaon Pode Vide : WCL/CHA/CGM/ANO/ENV/ 1052/1774 Dtd. 02/03-08-2009

xv)	A copy of clearance letter shall be	Noted copy of EC submitted to Regional officer MPCB /
Avj	displayed on the website of the	Chandrapur vide; WCL / CHA / CGM / ANO / ENV /
	concerned State Pollution Control	1050/4589 dtd: 02/03-08-2009.
	Board. The EC letter shall also be	
	displayed at the Regional Office,	
	District Industry Centre and Collector's	
	Office/Tehsildar's Office for 30 days.	
xvi)	The project proponent shall submit	Compliance/ATR:- The six monthly compliance reports
	six monthly reports on the status of	are regularly submitted to MoEF, Regional office both in
	compliance of the stipulated	soft copies.
	environmental clearance conditions	Last submitted vide Email: manna.safety@gmail.com
	(both in hard copy and in email) to	Dt: 06/11/2021
	the respective Regional Office of the	The monitoring data has been uploaded in company's
	MOEF, the respective Zonal offices of CPCB and the SPCB. The	website. The latest compliance status of EC conditions is
	of CPCB and the SPCB. The compliance status of the stipulated	being uploaded.
	BC conditions shall also be	
	uploaded by the project authorizes	
	on their website and updated at least	
	once every six months so as to bring	
	the same in the public domain. The	
	monitoring data of environmental	
	quality prustmeters etc s. noise and	
	soil) shall also be displayed at the	
	entrance of the project premises and	
	mines office and in corporate office	
	and on the company's website.	
xvii)	The Regional Office of this Ministry	Full Co-Operation to the officers of the Regional Office
	located at Bhopal shall monitor	shall be done by furnishing the requisite
	compliance of the stipulated	data/information monitoring Report
	conditions. The Project authorities	
	shall extend full cooperation to the	
	office(s) of the Regional Office by	
	furnishing the requisite data/	
	information/ monitoring reports.	
xviii)	The environmental statement for	
	each financial year ending 31st	The environmental statement Submitted Online on
	March in Form-V is mandated to be	MPCB portal vide;
	submitted by the project proponent	1) HANING MECHENIANG COLUMN
	tot the concerned state Pollution	1) UAN NO: MPCB ENVIRONMENT_STATEMENT- 0000046163 dtd: -19.09.2022 for Manna Incline
	Control Board as prescribed under	0000040105 did19.09.2022 for Manna Incline
	the Environment (Protection) Rules, 1986, as amended	2) UAN NO : MPCB-ENVIRONMENT STATEMENT-
	Rules,1986, as amended subsequently, shall also be uploaded	0000046160 dtd: 19.09.2022 for Nandgaon Incline
	on the company's website along	00000 TO 100 did. 17.07.2022 for ivalided in the line
	with the status of compliance of EC	
	conditions and shall be sent to the	
	respective Regional Offices of the	
	MOEF by E-mail.	
3	The Ministry or any other competent	
	authority may stipulate any further	NY 1
	condition for environment	Noted
	protection.	
	1.1	

Failure to comply very conditions mentioned result in withdrawal and attract the Environment (Protect	ed above may of this clearance provisions of	Noted
5 The above condi- enforced interlaid provisions of the w & control of pollutio Air(prevention & pollution) Act environment (pollution) and the Public Lia Act. 1991 along amendments and proponent shall ensurand provide for the contaking up remedial most of soil contamination of groundwater and and occupational and due to the mining opensors.	under the ater (prevention n) Act 1974, the control of 1981, the ion) Act, 1986 bility Insurance with their rules. The are to undertake cost incurred for neasures in case a, contamination surface water, d other diseases	Noted

Sr. Manager.(Min)/Manager Manna Incline

GM(Min)/Sub Area Manager Hindustan Lalpeth Sub Area Area Nodal Officer (ENV) WCL-Chandrapur Area