

### WESTERN COALFIELDS LIMITED

## CHANDRAPUR AREA

#### E.M.P. COMPLIANCE REPORT

### AS ON 01.04.2023

# DURGAPUR RAYATWARI COLLIERY (UG COAL MINE)

#### PART-IV

Project	:	Durgapur Rayatwari Colliery
<b>Environmental Clearance</b>	:	For Coal Production Capacity of 0.92 MTPA
Ref. No.	:	J-11015/42/2007-1A II (M) Dt. 11.06.2007
COMDULANCE DED	ОПТ	A C A INGT ENVIDOMENT CLEAD ANCI

#### **COMPLIANCE REPORT AGAINST ENVIROMENT CLEARANCE**

Sr. No.	A. Specific conditions.	Compliance	
1	All the condition stipulated by SPCB in their NOC shall be effectively implemented.	Condition stipulated in the CTO is effectively implemented and compliance to this is regularly submitted. Consent to Operate under Air & Water Act for a production capacity of 0.3 Million Te./Yr. obtained from MPCB up to 31.03.2024 vide Format1.0/CC/ UAN No.0000108066 /CR /2203000018 Dated: 01/03/2022. (Annexure-C)	
	Approval for Project renewal shall be obtained before expansion in production.	Project Report has been approved in respect of Durgapur Rayatwari Colliery by MOC. Govt. of India	
	Mining shall not be carried in forestland for which forestry clearance has not been obtained under the provisions of FC Act; 1980.	nationalization of coal mines and is an operating mine under Control of WCL since 01.11.1975. The lease area of 1392.1	
IV	Mining shall be carried out as statue at a safe distance from the river and Nallah flowing within 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.	e granted by DGMS. No subsidence occurred due to san stowing. f s e r e	
V	While extracting panels in the lower seam, all water bodies in the subsidence area Shall be drained. Dewatering of the old goaves of the upper seam shall be continued as long as the	There is no overlying seam exist at DRC. There is only one composite seam of average thickness 17.5 m, as such this situation is not applicable in this particular mine. Method of working adopted in this mine is Board & Pillar, in which depillaring is being done in conjunction with hydraulic sand stowing. The voids created after extraction of coal are filled with sand stowing process, resulting there is no surface	

			· · · · · · · · · · · · · · · · · · ·	
	lower scam is worked to		been observed over working area. Her	
	prevent accumulation of	there is no chance of accumulation of water bodies over		
	large water bodies over	working area due to ex	working area due to extraction of coal.	
	working area.			
VI	Sufficient coal pillars shall	At present, there are 2	2 Nos. of air shafts (DRC No. 3&4)	are
	be left un extracted around	provided in this mine	e, and both for return air (Dia 4.8 M	lts.
	the airshaft (within the	^	4.8 Mts. Depth 31. m). The sufficient	
	subsidence influence area) to	- , ,	than 15m thickness has been 1	
	protect from any damage	-	e air shaft as per statute.	
	from subsidence, if any.		e an shart as per statute.	
	Solid barriers shall be left	The lasse held have	dame of a mine is being another	1
VII			ndary of a mine is bring crossed	•
	below the roads failing	-	1. The minimum depth of cover belo	
	within the blocks to avoid		& Maximum depth cover 176 m. a	
	any damage to the roads.		passing through mining lease bounda	-
		and cross the CRC to	DRC connecting drift which is dep	pth
		cover area 54 m. No	extraction of pillar is being carried of	out
		within and beneath of	f Public Road as per mining operation	ons
		are being carried ou	tt as per Reg. 119 of CMR - 20	17.
		Moreover, entire extra	action is carried out in conjunction w	vith
			g. Hence no risk of damage to the ro	
		due to Subsidence.	6 6	
VIII	No depillaring shall be		r is being carried out within and benea	ath
•	carried out below the roads		illage area as per Reg. 119 of CMR	
	and village area found within	-		
	the lease.	2017. However Depillaring operation is being carried out with hydraulic sand stowing by taking prior permission from		
	the lease.	•	2 and Reg. 119 of CMR $-$ 2017. Her	
		-	10 adverse impact on surface or dama	
		e e	*	•
		to any road or Village area has been observed. Year wise quantity of Sand Stowing in last five year is as given below.		
		Year	Sand Stowing (m3)	
		2017-2018	85,795.72	
		2018-2019	84,016.92	
		2019-2020	1,29,928.20	
		2020-2021	92,507.01	
		2021-2022	63,259.63	
		2022-2023	1,03,993.76	
		D 1 1/1		
IX	Regular monitoring of	e e	of subsidence movement on surface	
	subsidence movement on the		e permission of depillaring granted	-
	surface over and around the	DGMS in line with the provisions of $CMR - 2017$ and related		
	working area and impact on	DGMS Technical Circular N. 4 of 1988.		
	natural drainage pattern,	For monitoring of subsidence movement "observed Pillar"		
	water bodies, vegetation	were fixed and spot levels (Least count of leveling Staff -		
	structure, roads and surround	0.005m) of pillars	are taken before commencement	of
	should be continued till	depillaring operation.		
	movement ceases		of above mentioned Subsidence pill	ars
	completely. In case of		there is no movement of strata, crack	
	observation of any high rate		vas observed during surface inspection	
	cost ration of any men fate	U	<b>C</b> 1	

-	of subsidence movement,	Also, in other areas over old depillared panels, no such impact
	of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and material. Cracks should be effectively plugged with ballast and clayey soil/suitable material.	Also, in other areas over old depillared panels, no such impact on surface was observed. Other Pillars are situated below the forest area i.e. subsidence survey not completed because of dense forest.
X	Garland drains (size, gradient and length ) around the safety areas such as mine shaft and low lying areas and sump capacity should be designed keeping 50% safety margin over an above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity should also provide for adequate retention period to allow proper setting of silt material.	<ul> <li>Garland drains are provided in case of opencast mine. DRC is an operating underground mine, the precautions being taken to prevent the risk of inundation due to surface water as well as underground water are covered under the provision of Reg. 149 &amp;150 of Coal Mines Regulations-2017 and the relevant circulars issued by DGMS time to time. The mine openings are also at an elevation of more than 3.00 m from H.F.L of Amba Nala (185.278 m) for DRC no 3 Incline &amp; H.F.L of Macchi Nala (197.508 m) for DRC no 3 Incline Hence there is no danger of inundation due to surface water</li> <li>Elevation of Mine openings: <ul> <li>191.508 m (No.3 Incline)</li> <li>198.820 m (No.4 Incline)</li> <li>202.798 m (No.5 Incline)</li> <li>198.778 m (air shaft No. 3)</li> <li>201.460 m (air shaft No.4)</li> </ul> </li> <li>The underground main sump having capacity of 104.63</li> <li>Million Gallon which is sufficient for providing adequate retention period to allow proper settling of silt material.</li> </ul>
XI	Crushers at the CHP should be operated with high efficiency bag filters and water sprinkling system should be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points etc.	In DRC UG mine there is no CHP & beneficiation plant. Coal come to surface with the help of various haulage and conveyor belt and collect to bunkers then dispatch to CRC CHP by truck. The sprinklers fog / mist spray setup on DRC no 4 bunker. In the mine panels area like various galleries, haulage road, Tramming road, drifts, returns air ways & intake airways carrying out regular water spraying as per provisions of coal Mines Regulation – 2017 and related DGMS (Tech) Circulars. For the monitoring of Dust generation in mine regularly, Dust scheme has been formed for the purpose of sampling and analysis of respirable dust generated in mine. Accordingly, Control measures are taken to reduce the dust emission in mine and keep the concentration of respirable dust within permissible limit.
XII	Drill should be wet operated only	As indicated earlier, this is an underground mine entire drilling & blasting operation are carried out as per provisions of Coal Mines Regulation-2017 and related DGMS (Tech) Circulars in underground. There are total 12 Nos. of drills are provided in the underground workings which are all electrically operated and water spraying is being done on working face before

		carrying	out drill	operation ar	nd after blast	ing operatio	on.
XIII	Controlled blasting should be	As indicated earlier, this is an underground mine entire drilling					
	practiced with the use of	& blasting operations are being carried out by taking prior			• •		
	delay detonators.				er Reg No. 2		
					DGMS (Tech		
					mitted expl		
		<b>.</b> .	•		lay detonator	rs are being	g used for
			controlled blasting operation.				
XIV	A time-bound action plan for	Being an underground mine there are very limited surface					
	afforestation shall be	rights. Plantation is being done in and around DRC No.3 Pit office, DRC No.4 Pit office colony No. 5, DRC 6, 7 & 8,					
	prepared for implementation				•		
	for area along ML boundary, along roads, vacant land and			en done as g	ghbridge etc	c. The tota	1 mos. of
	area in township by planting	Sr. No	Year	Plantation	Area in Ha.	Location	Remark
	native species in consultation	1	1992-93	30000	13.00	DRC-5	
	with the local	2	1995-96	16000	3.20	F Dump	
	DFO/Agriculture	3	1996-97	15000	6.00	DRC	
	Department. The density of	4	1996-97 1997-98	50000	19.50	F Dump DRC CHP	
	the trees should be around	6	1997-98	11250 30000	3.40 9.85	F Dump	
	2500 plants per hectare.	7	1997-98	7666	3.06	DRC	
		8	1999-20	30000	11.04	F Dump	
		9	2002-03	3000	1.20	DRC- 5	
		10	2003-04	58000	24.00	Sand Bunker	Handover to forest dept.
		11	2004-05 2009-10	7500	3.00 2.00	Sand Bunker DRC 6,7,8	torest dept.
		12	2009-10	600	0.24	DRC 0,7,8 DRC- 5	
			otal	2,64,016	99.85	Area = 72.85 &	
	The company shall shain				ntioned here	1,98,500 Plant	
XV	The company shall obtain		•	•		e	
	approval of CGWA/CGWB		obtained		of coal in		
	Regional Office for use of	NOC				vide NC	
	ground water if any, for				1/13580 dtd:	01.11.2021	and upto
	mining operations.		23 (Anne:		<u> </u>		
XVI	The company shall identify	Maximum mine discharge water is re-circulated into the mine					
	sites for construction of						
	water harvesting structures				monitored an		
	for augmentation of ground	more or	less stati	c. Only an i	nsignificant	variation is	observed
	water resource in	during s	ummer.				
	consultation with the	From th	e above	it can be in	ferred that th	nere is no i	mpact on
	Panchayats of the village (s)	ground <sup>•</sup>	water lev	el at present	t due to the	working of	the mine
	in the affected areas and shall	under co	onsiderati	on. As such	there are no	affected an	eas in the
	complete their construction	vicinity;	constru	ction of wa	ter harvesti	ng structur	es is not
	within an agreed time frame.	required	at preser	nt.		-	
	_	· ·			asure, prese	ntly a roof	top rain
			-	-	installed a	•	-
			-	Office build			
		-			rea – 441 m2	2	
				its $-2$ Nos.		-	
			0	Top Area -	1050 m <sup>2</sup>		
				its $-7$ Nos.	1950 1112		
V\/II	Pagular monitoring of				rculated for	stowing	maga and
XVII	Regular monitoring of ground water level and				se after wat		
L	Bround water iever allu	supplied	i ioi uoll	icone puipo	se aller wal	er near cu	i a150 101

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	quality should be carried out by establishing a network of existing wells and construction of new peizometers. 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 to the Central Pollution Control Board quarterly within one month of monitoring.	resident colonies Anacon Laboratories Pvt. Ltd. is carrying out the work of ground water level & quality monitoring & their Report for the period NOV-DEC 2021(POST-MONSOON) & JAN-FEB 2022 (WINTER) (Annexure-E)
XVIII	The project authorities should meet, water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	As per Report on Monitoring of Ground Water level and Quality Analysis for the Period NOV-DEC 2021(POST- MONSOON) & JAN-FEB 2022 (WINTER). There is no decline in water table observed. However, for meeting the needs of growing population, the project authority has taken adequate steps for supply of water to the neighboring community as detailed below :- The underground mine water is pumped to surface water treatment plant is provided for treatment of it. Treated water is supplied to Nehru Nagar, Shyam Nagar, OM Nagar & Forest department for the purpose of horticulture. Some Water is discharge in nallah.
XIX	Sewage treatment plant should be installed in the existing colony. ETP should also be provided for workshop and CHP wastewater.	Durgapur Rayatwari mine since 1982, it is an underground mine. There is no need to ETP. At coal bunker water is used for dust suppression. The mine workshop is present but not generate of effluent because not present any HEMM, hence no WETP is required, and there is no CHP.
XX	Besides carrying out regular periodical 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	<ul> <li>WCL is having occupational health committee at the corporate (HQ) level as well as at the unit (Area/Project level).</li> <li>At corporate level, the committee consists of the following:</li> <li>Chief General Manager (Safety)</li> <li>Chief of Medical Services</li> <li>Periodical Medical Examination (PME) Incharge of HQ.</li> <li>The committee scrutinizes the report of the area every quarter.</li> <li>At Unit level, the committee consists of the following –</li> <li>General Manager (Operations)</li> <li>Area Medical Officer</li> <li>Area Safety Officer</li> <li>Periodical Medical examination (PME) Incharge of Area.</li> <li>Year-wise details of PME in respect of Durgapur Rayatwari Colliery is as follows:</li> </ul>

	Ministry and to DGMS.	Year	Achieved PME	
		2018	374	
		2019	205	_
		2020	309	_
		2021	228	-
		2022	286	
		(Till March. 2023	85	-
		Till date, no such incid		disease and
		hearing impairment has b this mine.	been recorded among the	workers of
XXI	Digital processing of the entire lease area using remote sensing technique should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its regional office at Bhopal.	This is an operational underground mine and activities are carried out below the ground hence Digital processing of working area is not possible. There are very limited surface rights for the mine. However, the vegetation cover mapping is done regularly & report is uploaded on website.		
XXII	A final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests of final mine closure for approval.	As per EC obtained in 2006 life of mine is 71 years. In respect of Mine closure plan, Escrow A/C (Old No. 08973161002652) & (New No.0897107600001328) of Durgapur Rayatwari Mine of WCL. The closure cost deposited prior to 2021-22 is Rs. 21.65 lakhs and progressive balance including interest in the Escrow A/c is Rs 1,46,69,694.00 (as on 31.03.2022). The mineable reserve is 47.34 MT. Total life of mine is <b>64 years.</b> Final closure plan shall be submitted to MOEF 7 years before actual closure.		
XXIII	Consent to operate shall be obtained before expanding mining operations.	Consent to Operate under Air & Water Act for a production capacity of 0.3 Million Te./Yr. obtained from MPCB up to 31.03.2024 vide Format1.0/CC/ UAN No.0000108066 /CR /2203000018 Dated: 01/03/2022.		
B. Ge	eneral conditions.			
1	No .Change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.	f done by Board and Pillar method and depillaring operation is being done in conjunction with Hydraulic sand stowing. I case, any different method of extraction is proposed, price		coal is being operation is stowing. In posed, prior encement of
11	No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.	limit. EC has been granted for Coal production capacity of		ll within EC capacity of wal of CTO 000108066
	Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer	Four monitoring stations h with MPCB covering core i) Pit Office (DI ii) DRC-5 No. c iii) Filter Plant (D	e and buffer zone. RC-iii (UG) olony	consultation

	zone for SPM, RPM, SO2	iv) Nehru Nagar
	and Nox monitoring,. Location of the stations should be decided based on the meteorological date, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.	
IV	Fugitive dust emissions (SPM and RPM) from all the sources should be controlled and regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintained.	This is an underground mine and there is no haul road as such. The, only source of fugitive emission is during truck loading through coal bunker for which wind barrier of belt around coal bunker and side cladding along conveyor has been provided and to control emission while loading of trucks through pay loader for which sprinklers are provided at coal stock yard that keeps coal wet and prevent fugitive emission. Coal transportation is done by trucks upto CRC CHP which is approximately 1.5 km from DRC no 3 & 3.8 km from DRC no 4. Water sprinkling and water spraying by mobile water tanker on coal transportation roads is under practice. It is ensured coal carrying trucks are properly covered with tarpaulin.
v	Data on ambient air quality (SPM, RPM, SO2 and Nox) should 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.	Data on ambient air quality is being regularly submitted to MPCB & MOEF vide email <u>wclchaenv@gmail.com</u> . Latest monitoring monthly report from <b>Oct- 2022 to March- 2023</b> are enclosed. (Annexure-G)
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.	This is an underground mine, thus there is no HEMM. All machineries viz. Haulages, belt conveyors, side discharge loaders are deployed in underground. Proper lubrication of all machineries is ensured. Noise levels of underground machineries are well within permissible limit i.e 85 DBA as per monitoring reports enclosed and noise level control measures in underground workings are covered under Coal Mines Regulation - 2017 as well as DGMS (Tech) circular 18 of 1975.
VII	Industrial waste water (workshop and wastewater from the mine) should be properly collected, treated so as to conform 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	This is an underground mine and there is no HEMM. As such there is no workshop with washing facilities for HEMM (Pit head workshop provided with lathe machines etc.) and hence there is no question of effluent from workshop. Hence not required the issue of providing oil & grease trap for workshop effluent does not arise. The underground main sump having capacity of 104.63 Million Gallon, mine water discharge is allowed to settle on two interconnected sedimentation tanks of capacity 34,110 Gallons (155 Cum). Treated water further supplied to nearby residents for domestic usage, DOC colony

	trap should be installed before discharge of workshop effluents.		mine pumped out water is monitored invironment Protection Amendment
VIII	Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.		ne no vehicle is used for production for transporting mineral from other ith tarpaulin.
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.	It exists at CMPDIL, N carried out by CMPDIL.	Nagpur and monitoring is entirely
x	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. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.	and control measures are by providing regular w workings, and Adequate t and SOPs (Safe operating workers giving informat Periodical medical exam PME details are as follows <b>Year</b> 2018 2019 2020 2021 2022 (Till March 2023)	Achieved PME 374 205 309 228 286 85 lence of occupational disease and
хі	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.	<ul> <li>At project level Env. Management Cell is headed by Sub Area Manager and is directly assisted by Project Nodal Officer [Env./Dy.M(C)].</li> <li>At Area level the A.G.M. heads the cell assisted by Area Nodal Officer (Env.).</li> <li>At Corporate level GM (Env.) heads the Env. Deptt. assisted by multi disciplinary team of qualified and trained engineers</li> </ul>	
XII	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	who reports directly to the Director (Technical) Separate fund provisions for environmental protection measure has been kept in Revenue and Capital Budget of the year and year wise expenditure is being updated in 6 monthly report submitted to the Ministry.	

Bhopal.

XIII	The Regional Office of this Ministry located at Bhopal 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.	Full Cooperation will be extended from project authorities for monitoring the EC compliance.
xıv	A copy of the environmental clearance letter shall be marked to concerned Panchayat / local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.	Copy of EC submitted to Panchayat vide letter no. WCL/CHA/CGM/ANO/ENV/1929/2976 Dtd. 16/18.06.2007 (Annexure-I)
xv	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tahsildar's office for 30 days.	Copy of environment clearance submitted to MPCB vide letter no WCL/CHA/CGM/ANO/ENV/1929/2976 Dtd. 16/18.06.2007 (Annexure-I)
xvi	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 http://envfor.nic.in.	Advertised in two local Newspapers as follows; 1. The Hitawada English, Nagpur Dtd: 21.06.2007 2. Mahavidharbha Marathi, Chandrapur Dtd: 22.06.2007 (Annexure-J)
xvii	The Ministry or any other competent authority may stipulate any further condition for environmental protection.	Noted & compliance Report send to MPCB Chandrapur.
xviii	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
хіх	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

Nodal Officer (Env) Rayatwari Sub Area

12003 Colliery Manager Durgapur Rayatwari Colliery

Area Nodal Officer (Env) WCL-Chandrapur Area