

MAHANADI COALFIELDS LIMITED ମହାନଦୀ କୋଲଫିଲଡସ୍ ଲିମିଟେଡ୍

महजदी कोलफिटड्स लिमिटेड Office of the Project Officer, Jaganath Colliery Jagannath Area, P.O: Balanda, Dist: Angul, Odisha Pin:759103, Ph:06760-260212, 260458, 260321 email: jagannathcolliery@gmail.com An ISO 9001:2008 & 14001:2004 Certified Project

Ref.No. PO/JNC/Envt./2021/

Date: 01-06-2021

To

The Dy. Director General of Forest (Central) Eastern Regional Office, MoEF & CC, A/3, Chandrasekharpur, Bhubaneswar 751016

Sub: Half yearly EC Compliance report of Jagannath Colliery (7.5 MTY), MCL for the period of October 2020 to March 2021.

Dear Sir,

Enclosed please find herewith the half yearly compliance report for Environmental conditions Vide letter no. J-11015/177/2015-IA.II(M) dated 09.09.2020 for expansion of Jagannath OCP from 6MTPA to 7.5 MTPA for the period of October 2020 to March 2021.

Thanking you.

Enclosed:

1. Point wise compliance report of EC conditions.

2. Annexure I to XVI

Yours faithfully,

Project Officer Jagannath OCP

Copy to:

1. The Additional Director(S), Envt. Monitoring Cell, MoEF, Pariyavaran Bhawan, CGO Complex, New Delhi 110003 Regd post with AD

# MAHANADI COAL FIELDS LIMITED



# HALF YEARLY COMPLIANCE STATUS FROM THE PERIOD 01/10/2020 TO 31/03/2021OF THE CONDITIONS IMPOSED BY MOEF(GOI), NEW DELHI IN ENVIRONMENTAL CLEARANCE IN RESPECT OF JAGANNATH COLLIERY OF JAGANNATH AREA, MCL.

1.	Name of the Project	:	Jagannath Colliery, MCL
2.	Period of the report	:	01/10/2020 to 31/03/2021
3.	No. & Date of MOEF clearance letter	:	J-11015/177/2015-IA-II(M),dated 09.09.2020 of Jagannath OCP from 6 to 7.5MTY
4.	Actual date of commencement	:	26.01.1971
5.	Cost of Project	:	Rs.409.08crore

Compliance for Environmental Clearance Conditions of F.No.J-11015/177/2015-IA-II(M) dated 09.09.2020 of Jagannath OCP from 6 to 7.5MTPA with increase in mine lease area from 430.76 ha to 553.946 ha 4(i) An amount of Rs 3987.74 lakhs towards Remediation plan and Natural and Community Resource Augmentation Plan to be spent within a span of three years. The details are given below.

Table 1-Remediation plan with budgetary provision

SI. No.	Component Remediation	Remediation proposed	Description	Locations	Rate (Rs.)	Total Qty	Total Cost(Rs)	Compliance status
1(a)	Water Environment	Water Treatment Plant for Supply of Portable Water	Installation of 5nos RO plant near Jagannath OCP and Supply of treated portable water to nearby villages  Installation of Iron	1.Dera 2.Ghantapada 3.Handidua 4.Rhodasar 5.Ekdal 6.Hiloi Rakash village	8400000	05	4,20,00,000	Proposal to be initiated  Work is
1(0)			removal & Chlorination plant of capacity 10000GPH for supply of Drinking water	shifted people at R&R Site, Boulpur	35000000	01	3,50,00,000	completed but the plant is not commissioned yet due to power supply
1(c)		Water Storage & Conveyance system	Installation of Overhead Tank with Pipe line	Narayan Sevashram, Kukudang village (6000 Ltrs)	1000000	LS	10,00,000	Work completed
Sub-To	otal						7,80,00,000	

SI.	Component	Remediation	Description	Locations	Rate (Rs.)	Total	Total	Compliance Status
No.	Remediation	proposed				Qty	Cost(Rs)	
2(a)	Air and LULC and Ecology	Plantation / Greenbelt development & Maintenance	Urban Plantation at nearby villages, in vacant/open spaces near R&R site (for prevention of soil erosion) and areas outside Mine boundary with total Nos. of 42,500 local species covering an total area of 17.00 Ha	1.Dera 2.Derjang 3.Telisingha 4.Balanda 5.Balanda 6.Area outside Project boundary of Jagannath OCP	647.059	42500	2,75,00,000	RI of Derjang provided 15Acre land, rest RI (Dera,Kaniha) are also pursued for land.
Total –Remediation Plan Cost (Rs)							10,55,00,00	
							0	

Table 2- Natural and Community Resource Augmentation Plan with budgetary provision

SI.	Component	Remediation	Description	Locations	Rate(Rs.)	Total	Total Cost(Rs)	Compliance Status
No.	Remediation	proposed				Qty		
1	Natural Resource Augmentation Plan	Conservation of ecology and bio diversity	Development thick green belt with width of 7.5 Mtrs for a total running length of Approx. 30 KM, covering total area of approx. 21.85 Ha land with total of 40000 nos of sapling of local species like sal, gambhari, kurum etc.	safety zone /around the Mine lease	800	40000	3,20,00,000	Out of 21.85Ha development of green belt ,along safety zone ,plantation work in 1985Ha will be done in following manner.

SI.	Component	Remediation	Description	Locations	Rate(Rs)	Total	Total	Compliance Status
No.	Remediation	proposed				Qty	Cost(Rs)	
				2.Downstream direction near Bharatpur Coal Corridor Road  3.Along stream, ponds, etc. of peripheral villages			3,20,00,000	1.Plantation in 4Ha is completed in 2020-21 and 5Ha land will be planted in 2021-22 for which proposal sent to MCL HQrs and 9Ha land will be planted in 2022-23 with local species like sal,gambhari,kurum etc. and rest plantation on 1.8Ha land will be done after completionof Tech. Reclamation work on or before F.Y.2022-23 2.Plantation on 2Ha land along stream, ponds etc. is under process.
Total-I	Natural Resource	Augmentation	plan				3,20,00,000	
2	Community Resource Augmentation Plan		Construction/ Renovation of following infrastructures • RCC Drains	Construction of RCC Drains in 1.Majhidian Pond to Chechari pond at Ghantapada -195 mtrs	LS	LS	11,12,74,000	1.Work is awarded, due to land dispute it is not taken up.

SI. No.	Component Remediation	Remediation proposed	Description	Locations	Rate(Rs.)	Total Qty	Total Costs(Rs.)	Compliance Status
				2.R&R Sites,Boulapur- 5650 Mtrs				2.The work completed
				3.Gurudwar to FCI gate chhak- 3000Mtrs				3.The work completed
			• RCC Roads	Construction of roads in (a)R&R site, Boulapur-3890 Mtrs				(a)Estimated approved, tender floated, It is now at TCR stage
				Renovation of roads in (i)Road from Regional Hospital, Dera to hanuman Mandir, Dera-				(i)Work completed
				519.5Mtrs  (ii)Gurudwar to FCI gate Chhak-1351mtrs				(ii)Work completed

SI. No.	Component Remediation	Remediat ion proposed	Description	Locations	Rate(Rs)	Total Qty	Total Cost(Rs)	Compliance Status
			<ul> <li>Community Toilets</li> <li>Library-Cum Meeting Hall</li> </ul>	Construction of community Toilets and Library cum Meeting Hall in respective locations. 1.Handidhua and Dera-3nos in each village 2.Sevashram, kukudang village				1.Proposal to be initiated for village Handidhua and Dera.  2.The work completed at Sevashram, kukudang village
Sub-To	otal						11,12,74,000	
3	Community Resource Augmentation Plan		Constructions of a High school at Dera(New) with all facilities including, smart display board, separate library 10000 books etc and having 26 Class Rooms,06 Nos. Hall and 13 Toilets Nos. of rooms to provide education to local villager's kids	Dera	LS	LS	10,00,00,000	Work order issued. Agreement Executed, work will be started shortly

SI. No.	Component Remediation	Remediation proposed	Description	Locations	Rate(Rs)	Total Qty(Rs)	Total Cost(Rs)	Compliance Status
3(a)	Community Resource Augmentation Plan	Energy Conservation (Green Energy)	Providing 200 Nos. 5KW Capacity Solar Lighting system(includes panels, inverters, structure, connectors, wiring, junction boxes, etc.) to households in nearby villages.	<ul> <li>Dera, - 75</li> <li>NewJiinda</li> <li>- 75</li> <li>Ekdal - 50</li> </ul>	200	250000	5,00,00,000	Dera village confirmed the site. The proposal is submitted for approval. Rest proposals are initiated for other village.
Total-	-Community Reso	ource Augmentation	n Plan(Rs.)	·			26,12,74,000	

# Summary

Sl. No.	Activity Proposed	Total (Rs. in Lakhs)
1	Cost of remediation plan	1055.00
2	Natural Resources Augmentation for 3years	320.00
3	Community Resources Augmentation Plan for 3years	2612.74
Total		3987.74

Sl no.	Condition	Compliance Status
4(ii)	Project proponent shall be required to submit a bank guarantee of an amount of Rs. 3987.74 lakhs towards Remediation plan and Natural and Community Resource Augmentation plan with the SPCB prior to the grant of EC.	Complied.  The bank guarantee of amount of Rs 3987.74 lakhs is submitted to SPCB towards Remedial action plan and Natural and community resource Augmentation plan on date 20.06.2020(Enclosed in Annexure – V)
(iii)	Remediation plan shall be completed in 3 years whereas bank guarantee shall be for 5 years. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.	Agree to comply.
(iv)	Fund allocation for Corporate Environment Responsibility (CER) of Rs. 2.80 crore/- to be implemented as per the details submitted in the Ministry.	Complied.  The details as submitted to ministry to be implemented in three years time are in progress.
(v)	Impact due to groundwater abstraction during mining operations analytical and numerical modelling by micro water shed analysis shall be completed at the earliest and submitted to the Ministry and its concerned regional office	Complied.  Avenues for knowing the impact of ground water due to ground water abstraction during mining operation is been looked in to. The report shall be submitted as the earliest.
(vi)	Embankment to be constructed along the Bangaru nallah	Construction work is in progress.  (Work order copy enclosed in Annexure-VI)
	No discharge of mine water outside the Mining lease area.	Complied.  Mine Water is not discharged outside the mine.
(viii)	Regular water quality to be monitored in upstream and downstream of Brahmani river with flow of the river to observe the impact of Bangaru nallah.	Complied. Work is assigned to CMPDI vide workorder no. MCL/HQ/E&F/20-21/23 dtd. 23.03.2021. Water quality monitoring is being done annually.

(ix)	Action plan as submitted to Ministry to control air pollution at Rakas village to be implemented in toto.	Complied.
(x)	All statutory precautions shall be taken as per the DGMS permission.	Complied
(xi)	Wildlife conservation plan shall be prepared for Schedule I (Peafowl) species present in the study area and submitted to the Competent Authority for approval. Same shall be implemented after approval of the Competent Authority.	Not applicable
(xii)	The Environmental Clearance will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.	Noted
(xiii)	State Government concerned shall ensure that mining operation shall not commence till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.	Noted
(xiv)	Automatic mist type sprinkling system shall be installed at crusher house. During transportation of coal from Mine to CHP shall be done by covered trucks with tarpaulin. Adequate number of water sprinklers shall be provided to control dust along coal transport roads	Complied. Automatic mist sprinkling system is installed at CHP. Apart from that, Misters -12 NOs each in 5 NOs circuit are present. 5 nos. of 28 KL Water mobile sprinklers are plied. Automatic mist type sprinkling system-TCR in process
(xv)	Effective dust suppression system shall be adopted along the railway siding area and between villages. Fabric wind barrier shall be established along the Railway Siding and between villages.	Complied. There are no railway siding under the control of Jagannath OCP.
(xvi)	Solid waste management as per SWM rules 2016 shall be comp lied within their colony.	Complied On contractual basis Civil Department engages persons for

		solid waste managements.
(xvii)	Energy conservation measures adhering to part of ECBC norms shall be complied with.	Complied.LED lights: 45 nos. of 60W and 15 nos of 250 W are installed in colony and 100 nos. of 250W and 150 nos of 400W are installed in mines.75 nos. of Solar panels will be fitted in Dera village.
(xviii)	Quality of Mine discharge water, if any,	Complied
	will be used for drinking purpose shall be	No discharge is made.
	checked and should meet the prescribed	
	drinking water standards	

(xix)	Periodical health check-up shall be conducted to monitor the impact of heavy metals present in core zone & buffer zone air quality and also to prepare an action plan to reduce heavy metals concentration and also report to be submitted to concerned regional office of MoEF & CC.	Complied Work is assigned to CMPDI and heavy metals present in core and buffer zone are monitored quarterly.
(xx)	Study on "Impact of coal mining dust on the soil quality with respect to Physico-chemical, fertility status, exchangeable cations, CEC, and productivity of soil to be carried out and the study report with dully authentication and verification by the concerned authority be submitted to Ministry and concerned regional office by 31.3.2021	Interim report submitted on dt 30.03.2021 to Ministry and concerned regional office ,due to pandemic the final report is to yet to be submitted. (copy enclosed in Annexure-VII)
(xxi)	Project proponent shall obtain closure report from the concerned regional office regarding time bound action plan submitted for partially complied earlier EC conditions	Complied The previous compliance EC conditions submitted ,due to on going pandemic the closure notice is yet to be made.
(xxii)	The mining lease holder shall, after ceasing mining operations, under take re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to condition which is fit for growth of fodder, flora	Complied. Re grassing is done on part of the mine area where mining operation is ceased and this area is also biologically reclaimed. The slopes of the internal dumps where further

	and fauna etc.	dumping is not possible, grassing is being done.  Re grassing is done on part of the
		mine area where mining operation is ceased to restore the land
(xxiii)	Persons of nearby villages shall be given training on livelihood and skill development to make them employable.	Complied The persons of nearby villages are trained in the vocational centers every year and they have been employed in private coal transport works No of persons trained: Departmental: 143 nos; Contractual: 223 nos.
(xxiv)	To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months	Complied.  Due to on going pandemic regular medical camps were not setup.  Sanitizers: 750 litres and masks: 1,33,000 nos. were distributed to villagers.
(xxv)	Thick green belt of 75m width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution	Complied 4Ha of land has been planted completed. Plantation in 5Ha will be taken up in 2021-22 and rest area in the boundary of expansion area will be taken up next year will be taken up.

# **5.1** (a) Statutory compliance

Sl.	conditions	Compliance status
no.		
(i)	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.	Complied. Already diverted.
(ii)	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable	Not applicable

(iii)	The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation	Not applicable
	report shall be furnished along with the six-monthly compliance report (in case of the presence of Schedule- I species in the study area).	
(iv)	The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee	Complied The project has obtained CTE& CTO from SPCB, Odisha(copy enclosed in Annexure-VIII)
(v)	The project proponent shall obtain the necessary permission from the Central Ground Water Authority.	Complied NOC issued by CGWA, New Delhi vide NOC No- CGWA/NOC/MIN/ORIG/2020/7354 with validity up to Dt.30/01/2022.(NOC copy enclosed in Annexure-IX)
(vi)	Solid/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2 016/Hazardous & Other Waste Management Rules, 2016.	Complied. Hazardous waste authorization obtained vide no. IND-IV-HW- 225/4923 Dt. 24.03.2021.( copy enclosed in Annexure-X)

# (b) Air quality monitoring and preservation

Sl. No.	Condition	Compliance status
(i)	Continuous ambient air quality monitoring stations	Complied.
	as prescribed in the statue be established in the	Done in consultation with SPCB the

	core zone as well as in the buffer zone for monitoring of pollutants, namely PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> . 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. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months	Ambient Air Quality monitoring and also heavy metals are been monitored once in six months .(copy enclosed in Annexure-IV)
(ii)	The Ambient Air Quality monitorin g in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25 <sup>th</sup> September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.	Complied.  The monthly monitoring reports are submitted to Ministry and regional offices.
(iii)	Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critica l areas prone to air pollution (wit h higher values of PM10/P M2.s) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be cont rolled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.	Complied. All trucks carrying coal which move out of the Mine premises are covered. Effective dust suppression are been done at CHP roads ,loading and unloading operations. The following control measures are installed. Misters- 34 N0s Sprinklers- 18 N0s Water tankers- 5 N0s of 28KL Fog cannon- 1 N0s
(iv)	The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or	Complied. Coal corridors roads are utilised for transporting coal out of the premises

	environment monitoring plan.  Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.	of mine. The road does not pass through any villages. Bypass roads for villagers are constructed. Total length of coal corridor road- 21.6 KM
(v)	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.	Complied. All vehicles having PUC certificate are allowed to operate and having valid permit. In operation in one shift No of vehicles (Hyva) deployed – 90 nos.
(vi)	Coal stock pile /crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.	Complied For dust suppression, the following are installed Misters- 34 nos. Sprinklers- 18 nos. Drills are fitted with Dust extractors No of Drills – 5nos.
(vii)	Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environment friendly sustainable technology should be implemented for mitigating such parameters.	Complied. The following control measures are implemented. Instant shower system – Work order to be issued in 15 days. Misters Nos provided- 34 nos. Sprinklers- 18 nos Fog cannon – 1 no

## (c) Water quality monitoring and preservation

Sl. No.	conditions	Compliance status
(i)	The effluent discharge (mine waste water,	Complied
	workshop effluent) shall be monitored in	Monitored fortnightly by CMPDI
	terms of the parameters notified under the	
	Water Act, 1974 Coal Industry Standards	

	vide GSR 742(E) dated 25 <sup>th</sup> September,	
	2000 and as amended from time to time by	
	the Central Pollution Control Board.	
(ii)	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-200 12 / 1/2006-1A.11 (M) dated 27 <sup>th</sup> May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.	Complied. The monitoring data is uploaded regularly on the company's website.
(iii)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels s hall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.	Complied.  No. of wells monitored around mine area for ground water level -1no.  Monitoring is done quarterly.
(iv)	Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.	Complied.  Monitoring of water quality is carried and maintained and submitted to the Ministry.
(v)	Ground water, excluding mine water, shall not be used for mining operations.  Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.	Complied. Only mine water is used for mines operations and for dust suppression etc. Rain water harvesting to augment ground water resources are done at 13 points i.e at Project office, JET Hostel, South balanda civil office, JD/02, JC/14, Primary school, CMPF Office, JB/03, JB D/S, Kalakendra, Dispensary, A type(Gobara line), A type(STP Line

(vi)	Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heap s & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be proper consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly desilted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilized for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.	Complied External dump of mine is stabilised and biologically reclaimed. Toe wall is constructed at the foot of the dump. All drains present in the mines are de-silted before the monsoon
(vii)	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).	Complied 13 nos of Ground water recharge points are constructed. They are: at Project office, JET Hostel, South balanda civil office, JD/02, JC/14, Primary school, CMPF Office, JB/03, JB D/S, Kalakendra, Dispensary, A type(Gobara line), A type(STP Line)
(viii)	Industrial waste water generated from	Complied. ETP of 140Cum per/day capacity

(ix)	CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP/STP needs to be provided.  The water pumped out from the mine, after	is made to handle workshops effluent and the treated effluent is re used . STP of 1 MLD is present for Domestic wastes  Complied.
	siltation, shall be utilized for industrial purpose <i>viz</i> . watering the mine area, roads, green belt development <i>etc</i> . The drains shall be regularly desilted particularly after monsoon and maintained properly.	Discharge out of the mine is not done, after obtaining permission it will be done, drains are de silted before monsoon.
(x)	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/Go! Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.	Complied. Done and included in Monsoon plan and updated every year before monsoon so that inrush of water in mine does not take place. The natural water course diversion etc are done as per the EIA/EMP.  (copy enclosed in Annexure-XI)
(xi)	The project proponent shall take all precautionary measures to ensure rivarine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A rivarine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.	Complied. Precautionary measures are taken and monsoon plan is prepared every year to assess the dangers.

# (d) Noise and Vibration monitoring and prevention

Sl. No.	Conditions	Compliance status
(i)	Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.	Complied Protective equipments distribued Ear muff/plugs—326 nos Awarness programmes and safety talks at the start of shift are conducted. Safety day once in month on different topics are implemented. Safety meeting once in a month is conducted. Competitions between mines are conducted once in a year regarding safety.

(ii)	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.	Complied. Note:-Control blasting techniques with help of RAYDET/NONEL is used for initiation down the hole. Also proper stemming is being done to control the fly rocks. In addition guidelines prescribed by DGMS are followed.
(iii)	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.	Complied. Note:-Noise level survey is carried out as per the prescribed guidelines set by the DGMS. Monthly survey is being carried out to assess the noise exposure of workmen at vulnerable points.( copy enclosed in Annexure-XII)

# (e) Mining Plan

Sl. No.	Conditions	Compliance Status

(i)	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.	Complied. Mining is strictly carried out as per Mines Act 1952 & subordinate legislations
(ii)	Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).	Complied Mining is carried out as per the approved mine closure plan and abiding by mining laws related to coal mining and relevant circulars issued by DGMS.
(iii)	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.	Complied. Note:-Mining is carried out in forest land after obtaining forest clearance on 09-11-2005 and 07-02-2014
(iv)	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.	Complied LED lights: 45 nos. of 60W and 15 nos of 250 W are installed in colony and 100 nos. of 250W and 150 nos of 400W are installed in mines. 75 nos. of Solar panels will be fitted in Dera village.

## (f) Land reclamation

Sl. No.	Conditions	Compliance status
(i)	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in I:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).	Complied. Note:-The digital survey of entire lease hold area/core zone using satellite remote sensing survey has been done & the report has been submitted to MoEF&CC vide letter no. MCL/SBP/GM(E&F)/2018/9075 dated 15.06.2018
(ii)	The final mine void depth should preferably be as per the approved Mine	Noted and Complied Mine closure plan for 7.5MTPA has

	Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Postmining land be rendered usa ble for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coa I dated 27 <sup>111</sup> August, 2009 and subsequent amendments.	been approved by the MOC,GOI on 16.05.2017.
(iii)	The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conform it y with the "during mining"/" post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MoEF &CC/RO.	Present status: Area excavated- 363.25 Ha De coaled area- 358.76 Ha Technically reclaimed- 206.3 Ha Biological reclaimed (Internal Dump)- 133.15Ha Area under External Dump- 36.47 Ha Biologically reclaimed (External Dump) – 36.47 Ha
(iv)	Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF &CC, CPCB and SPCB.	No fly ash is dumped over External Dump of OB, backfilling or stowing of mine as per the notification issued vide SO 2804(E) dated 3 <sup>rd</sup> November 2009.
(v)	Further, it may be ensured that as per the time schedule specified in mine closure plan it should	Complied. Area Planted(Ext Dump) – 36.47 Ha

	remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilized with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forestand Climate Change/ Regional Office	No of plants planted(Ext. Dump)-75200 nos. A total of 283436 nos of plants have been planted under Jagannath OCP in an area of 114.83 Ha since 1992-93.
(vi)	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land	Complied. Presently on internal dumps, biologically reclaimed area naturally re-grassing has been germinated and grass seeds on slope of the dump have been spread where feasible. No separate land is till explored .Consultation with the state govt. is being done.

# (g) Green Belt

Sl. No.	Conditions	Compliance Status
(i)	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/ fauna, if any, spotted /reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation With the State Forest and Wild life Department.	Not applicable

(ii)	Greenbelt consisting of 3-tier plantation of	Complied.
	width not less than 7.5 m shall be	4 ha area planted in the year
	developed all along the mine lease area as	2020 5Ha area will be planted in the
	soon as possible. The green belt	year 2021
	comprising a mix of native species	J 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	(endemic species should be given priority)	
	shall be developed all along the major	
	approach/ coal transportation roads.	

# (h) Public hearing and Human health issues

Sl. No.	Conditions	Compliance status
(i)	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.	Complied. Departmentally safety department carries out and records are maintained.  (Annexure-XIII)
(ii)	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.	Complied Done departmentally by Regional Hospital and records are maintained at Hospital and safety dept of projects. *For the year 2020, PME conducted for 49 nos. only due to Covid 19. IME: 64 Nos.
(iii)	Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.	Complied Complied PPE distributed during 2020-21 Mining shoes: 473 Helmet:247 Dust Mask: 2994 Ear muff/plug: 326 Training of persons No of persons VT trained- Departmental: 143 nos.; Contractual: 223 nos.

(iv)	Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.	Noted and Complied.  The issues raised in the public hearing are being implemented.
(v)	The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA.I1 (M) dated 29 <sup>th</sup> October, 2014, titled 'Impact of mining activities on habitationsissues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area.	Complied. Regular monitoring of water table is being done to ascertain the impact of mining over ground water table. Main haulage road of the mine and other roads are regularly wetted by water sprinklers.

# (i)Corporate Environment Responsibility

Sl. No.	Conditions	Compliance Status
(i)	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/2017-IA.III dated 1 <sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.	Complied The process regarding the activities of Corporate Environment Responsibility are taken up.
(ii)	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringement s/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting	Complied. The company has well laid down environmental policy and standard operating procedures to check and bring focus of violations, etc. and reporting system. (copy enclosed in Annexure-XIV)

	infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders	
(iii)	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	Complied. Note:-Already framed and implemented from HQ level to Unit Level. The organizational chart is enclosed as below: Project Environment Officer → Area Environment Officer → GM (Envt). Between each step, line managements have been appraised. At Unit level: Project Envt. Officer → Project Officer. At Area level: Area Envt. Officer → General Manager. At HQ level: GM (Envt) → D (T/P&P).
(iv)	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environn1ental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry / Regional Office along with the Six Monthly Compliance Report.	Complied. Note:-Action plan already prepared in EIA-EMP and year wise fund for Environmental Protection measures is also incorporated.
(v)	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Complied

# (j) Miscellaneous

Sl. No.	Condition	Compliance Status
(i)	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Complied. Advertisements have been made (copy enclosed in Annexure-XV)
(ii)	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Complied The Environment Clearance copies has been submitted to the Heads of the local bodies, Panchayats in addition to the Govt. offices for display. (copy enclosed in Annexure- XVI)
(iii)	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Complied It is been uploaded in website and updated half yearly.
(iv)	The project proponent shall monitor the criteria pollutants level namely; PM10, S O2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Complied The monitoring data is displayed at Project Office, Balanda showing Ambient levels.
(v)	The project proponent shall submit sixmonthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	Complied The status of the environment conditions is being submitted six monthly to MoEF and Regional Office.

(vi)	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-1101 3/57120 14-IA.II (M) dated 29 <sup>th</sup> October, 2014, titled 'Impact of mining activities on habitationsissues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.	Noted and Complied Regular monitoring of water table is being done to ascertain the impact of mining over ground water table. Main haulage road of the mine and other roads are regularly wetted by water sprinklers.
(vii)	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	Complied The environment statement for each financial year is being submitted in Form- V to SPCB .Last Environment Statement submitted on dt.14.08.2020
(viii)	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.	Complied It is an ongoing project and EC is obtained for expansion from 6MTPA to 7.5MTPA.
(ix)	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government	Complied CTO obtained vide no. 5078/IND-I-CON-199 date 25.03.2021 for one year.
(x)	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Noted and Complied The issues raised in the public hearing are being implemented.
(xi)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.	Noted No further expansion or modification will be made without approval of the Ministry of Environment & Forests & Climate change
(xii)	Concealing factual data or submission of false/fabricated data may result in	Noted

	revocation of this environmental clearance	
	and attract action under the provisions of	
	Environment (Protection) Act, 1986.	
(xiii)	The Ministry may revoke or suspend the	Noted
	clearance, if implementation of any of the	
	above conditions is not satisfactory.	
(xiv)	The Ministry reserves the right to stipulate	Noted
	additional conditions if found necessary.	
	The Company in a time bound manner shall	
	implement these conditions.	
(xv)	The Regional Office of this Ministry shall	Noted
	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.	
(xvi)	The above conditions shall be enforced,	Noted and Complied
	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, Hazardous and	
	Other Wastes (Management and Trans-	
	boundary Movement) Rules, 2016 and the	
	Public Liability Insurance Act, 1991	
	along with their amendments and rules	
	made their under 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.	

Sl. No.	Conditions	Compliance status
5	The proponent shall abide by all the	Noted
	commitments and recommendations made	
	in the EIA/EMP report as well as during	
	presentation to the EAC. All the	
	commitments made on the issues raised	
	during public hearing shall also be	
	implemented by the EC in letter and spirit.	

	environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.	
7	Any appeal against this Environment Clearance (EC) 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.	Noted
8	The coal company/ project proponent shall be liable to pay the compensation against illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2 <sup>nd</sup> August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of 'Common Cause Vs Union of India & others.	Noted
9	The concerned State Government sha ll ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of the judgment of Hon'ble Supreme Court.	Noted
10	This Environment Clearance (EC) shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable and other statutory requirements.	Complied and noted

This is for your kind information.

Yours faithfully

Project Officer
Jagannath OCP

#### **REPORT- I**

# MINISTRY OF ENVIRONMENT FOREST & CC REGIONAL OFFICE BHUBNESWAR

MONITODING DDOEODMA	(DATA	CITETOR	DADTI
MONITORING PROFORMA	(DA I A	SHEET	) PAK 1-1

		DATA SHEET) PART-I
1.	Project type: River-Valley/Mining Industry/	MINING
	Thermal/Nuclear/Other (Specify)	1.0.11
2.	Name of the Project	Jagannath Colliery
<i>3</i> .	Clearance letter(s) OM No.& Dated	J-11015/177/2015-IA-II(M),
		dated 09-09-2020
4.	Location: a) District(s), State(s)	Dist: Angul, State: Odisha.
<i>5</i> .	Name & Address of concerned Project	Shri Santa Kumar Coudhury
	Officer, (with Pin Code & Telephone	Project Officer, Jagannath Colliery
	/Telex/Fax Nos.)	PO- Balanda, Talcher
	b) Address of Executive Project Engineer	Dist: Angul, Odisha, Pin :759116
	manager (with Pin Code and Telephone/Telex	Ph- 06760-260212 (O)
	/Fax Nos.).	
6.	Salient Features of the	
	(a)Project	It is an Opencast Project; Coal is extracted
		by using Surface Miner, drilling &blasting.
		OB is extracted by drilling and blasting,
		blasted material is extracted by using shovel
		dumper combination. Coal is transported by
		contractual tipper.
		Production(2020-21): Coal-5713549.90tone
		OB-5503042.18 m <sup>3</sup>
	(b) Environment Management plan	
I	Air pollution	Wet drilling arrangement in all five drills,
		05 number of water sprinkler used for dust
		05 number of water sprinkler used for dust suppression, mist sprinkler& fixed
		suppression, mist sprinkler& fixed sprinklers installed in CHP&FC
II	Water pollution	suppression, mist sprinkler& fixed
	•	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC MDTP,ETP,STP in operation
II	Water pollution Solid waste/ OB	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled
	•	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically
III	Solid waste/ OB	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically
	•	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically  Total Area =553.946Ha
III	Solid waste/ OB  Breakup of the Project Area	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically  Total Area =553.946Ha  Forest- =82.736 Ha
III	Solid waste/ OB  Breakup of the Project Area  a) Submergence area (forest & non-forest)	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically  Total Area =553.946Ha Forest- =82.736 Ha  Non Forest =471.21 Ha
7.	Solid waste/ OB  Breakup of the Project Area  a) Submergence area (forest & non-forest) b) Others	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically  Total Area =553.946Ha Forest- =82.736 Ha  Non Forest =471.21 Ha  Nil
III	Solid waste/ OB  Breakup of the Project Area  a) Submergence area (forest & non-forest) b) Others  Breakup of the Project affected population	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically  Total Area =553.946Ha Forest- =82.736 Ha  Non Forest =471.21 Ha  Nil  Village Purnia,Nakhetrapur,Rakas,Balanda
7.	Solid waste/ OB  Breakup of the Project Area  a) Submergence area (forest & non-forest) b) Others  Breakup of the Project affected population With enumeration of those losing houses/	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically  Total Area =553.946Ha Forest- =82.736 Ha  Non Forest =471.21 Ha  Nil  Village Purnia,Nakhetrapur,Rakas,Balanda is affected.
7.	Solid waste/ OB  Breakup of the Project Area  a) Submergence area (forest & non-forest) b) Others  Breakup of the Project affected population With enumeration of those losing houses/ Dwelling units only, agricultural land only,	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically  Total Area =553.946Ha Forest- =82.736 Ha  Non Forest =471.21 Ha  Nil  Village Purnia,Nakhetrapur,Rakas,Balanda is affected.  Total Nos of land oustees sponsored= 738
7.	Solid waste/ OB  Breakup of the Project Area  a) Submergence area (forest & non-forest) b) Others  Breakup of the Project affected population With enumeration of those losing houses/ Dwelling units only, agricultural land only, Both dwelling units and agricultural land and	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically  Total Area =553.946Ha Forest- =82.736 Ha  Non Forest =471.21 Ha  Nil  Village Purnia,Nakhetrapur,Rakas,Balanda is affected.  Total Nos of land oustees sponsored= 738  Nos
7.	Solid waste/ OB  Breakup of the Project Area  a) Submergence area (forest & non-forest) b) Others  Breakup of the Project affected population With enumeration of those losing houses/ Dwelling units only, agricultural land only, Both dwelling units and agricultural land and less laborers/artisans. a) SC/ST Advises	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically  Total Area =553.946Ha Forest- =82.736 Ha Non Forest =471.21 Ha  Nil  Village Purnia,Nakhetrapur,Rakas,Balanda is affected.  Total Nos of land oustees sponsored= 738  Nos  Nos. of employment provided= 699 Nos
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7. 8.	Solid waste/ OB  Breakup of the Project Area  a) Submergence area (forest & non-forest) b) Others  Breakup of the Project affected population With enumeration of those losing houses/ Dwelling units only, agricultural land only, Both dwelling units and agricultural land and less laborers/artisans. a) SC/ST Advises b) Others	suppression, mist sprinkler& fixed sprinklers installed in CHP&FC  MDTP,ETP,STP in operation  OB is dumped concurrently in the de-coaled area and then reclaimed both technically and biologically  Total Area =553.946Ha Forest- =82.736 Ha  Non Forest =471.21 Ha  Nil  Village Purnia,Nakhetrapur,Rakas,Balanda is affected.  Total Nos of land oustees sponsored= 738  Nos  Nos. of employment provided= 699 Nos  Cash in lieu of Employment= 07 Nos
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	subsequent the years of price reference	( 337.66 Cr ad	ditional)		
	b) Allocation made for environmental				
	management Plans, with item wise and Year wise break-up.	YEAR	2018- 19	19-20	20-21
	•	R&R	15.8Cr	3.32Cr	10.45Cr
		Restoration	105.03	116.69	129.54
		Of land	lakh	lakh	lakh
		Anti	6Cr	14Cr	23.5Cr
		pollution			
		Control			
		measures			
	c) Benefit cost ratio/internal rate of return and	-			
	the year of assessment.				
	d) Whether(c) includes the cost of	YES			
	Environmental Management as Shown in (b) above.				
	e) Actual expenditure incurred on the Project	The capital c	ost as pe	r approve	ed PR for
	so far	EMP is 1546 I			
	f) Actual expenditure incurred on the Envt.				
	Management plan so far	Rs 18.72 per T	e. Of Coa	ıl produce	d (approx)
10	FOREST LAND REQUIREMENTS				
	(a) The status of approval for a diversion of	Vide letter	No. 8	3-70/2004	-FC, Dt-
	forest land for non-forestry use	19.11.2004 fo	r 58.096	Ha and '	Vide letter
		No.			
		8-87/2012-FC,Dt-15.03.2013 for 24.64 l			
	(b) The status of clears felling in forest and non-forest lands	Trees felling c	ompleted	in forest l	and
	(c)The status of compensatory afforestation	Completed			
	(d)Comments on the viability and	Compensatory			
	Sustainability of compensatory afforestation	viable and highly essential for sustainability			
	programme in the light of actual field experience so far	of the ecosystem.			
11	Status of construction:				
	(a)Date of commencement (actual and / or	26.01.1971			
	planned				
10	(b) Date of completion (actual and/or planned	Ongoing proje	ct		
12	Reason for the delay if the project is yet to start	NA			
13	Date of site visits				
	a) The dated on which the Project was	26.12.2019			
	Monitored by the Regional Officer on				
	Previous occasions if				
	b) Date of site visit for this monitoring Report	26.12.2019			
	Details of correspondence with Project	NR			
14	Authorities for obtaining action plans,				
	Information & status of compliance to				
	Safeguards.				

## ANNEXTURE -II

## PROFOMA FOR PROVIDING INFORMATION ON REHABILITATION

1	No. of village affected	04				
2	Families affected(PAF's)	803				
3	Compensation package offered per family	As per norms of Odisha Govt. and R&R Policy of CIL/MCL.				
4	Budget estimate for rehabilitation					
(a)	Total Outlay	919 Lakhs(As per 7.5 MTPA EMP includes cost estimate for Resettlement and Rehabilitation)				
(b)	Amount paid/used	Rehabilitation & Resettlement         2018- 2019- 2020-21           19         20           15.8 Cr         3.32Cr         10.45Cr				
5	Employment details					
(a)	Total employment to be provided	703				
(b)	Employment given so far	699				
6	Rehabilitation & Resettlement Details	803				
(a)	No. of families resettled	561				
	i)Name of the site	Handidhua R&R site				
	ii)Families resettled	321				
(b)	Families yet to be rehabilitated	242				
	i)Name of the sites	180 Nos in Boulpur R&R site				
7	Any other information	240 Nos cash already paid 62 Nos cash to be paid				

## MINISTRY OF ENVIRONMENT FORESTS& CC EASTERN REGIONAL OFFICE

## A/3 Chandrasekharpur, Bhubaneswar -751 023

## FORMAT FOR PROVIDING PARTICULARS ON GREEN BELT/ PLANTATION UNDER F© ACT 1980 AND E (P) ACT 1986.

<i>1(a)</i>	Name of the Organization	Mahanadi Coalfields Limited, A Subsidiary of
		Coal India Limited
<i>(b)</i>	Envt. /Forest clearance Order No.	(1)8-70/2004-FC, Dt-19.11.2004 for 58.096
		Ha
	D1 1/G 1 D1 /G /	(2)8-87/2012-FC,Dt-15.03.2013 for 24.64 Ha
2.	Location, Block/Sub Divn. /Dist./State	Dist: Angul, Block: Talcher, Odisha
3.	Address for communication	Jagannath Colliery
		PO- Balanda, Talcher
		Dist: Angul, Odisha, Pin: 759116
		Ph- 06760-260212 (O)
4.	Existing vegetation in the area/region	Mango, Sal, Bamboo, Mahul ,Jamun etc.
(a)	Major prevalent species of each type	Mango, Sal, Bamboo, Mahul, Jamun etc.
<i>5</i> .	Land coverage by the Project.	
<i>(a)</i>	Total area under the Project	553.946 Ha
<i>(b)</i>	Area covered for basic infrastructure:	
. ,	(Roads)/building /factory etc.)	
6.	Details about natural vegetation	Trees and shrubs are available
(a)	Name and number of plant species:	Mango, Sal, Bamboo, Mahul ,Jamun etc
<i>(b)</i>	By protecting the area will Indigenous	-
	stock comes up?	
<i>(c)</i>	Extent of green belt developed	Plantation done in 4Ha in 2020-21
		Proposed in 5Ha in 2021-22
<i>7</i> .	Plantations required to be carried out	2500Nos. /Ha.
	As per. Conditions of Environmental	
	Clearance / in Ha. / Nos	
(a)	A conditions of Forest© Act for	Double the area of forest land used for non-
(4)	aforestation	forestry purposes.
(b)	Voluntarily in ha. /nos	2500 per Ha.
(0)	<b>√</b>	1

## 8. Details about Plantation:

(a) Total area available for plantation in each category: During the year 2020-21

Block plantation	Nil
Backfilled Area	4Ha
Road sides	Nil
Dump(Ext.)	Nil
Green belt	Nil
Remarks	Nil
slope plantation	

(b)Plantation details(Category wise

and Methodology used) : In year 2020-21,

10000 nos of trees has been planted in 4Ha

(c)Survival % of Plantation : Survival percentage of plantation

of year 2020-21 is 90%

9. Agency carrying out Plantation : CGRVVNL, Bilaspur, Chhattisgarh

10. Financial details (year wise)

Plantation wise and item wise : payment made Rs 1496700.00 against 50%

1st Installment of advance

11.Inspection of plantation by field Experts

and their comments and Follow up action. : By CGRVVNL

12.Remarks/any other information : NA

### **ANNEXTURE-IV**

## **EFFLUENT QUALITY DATA**

Station No.	Monitoring Stations	All dimensions are in mg/l unless otherwise stated except pH				
		рН	Oil &grease	TSS	COD	BOD
1	STP Outlet	7.12	-	24	-	<2.0
	STP Outlet	7.38	-	28	-	<2.0
2	O&G Trap Inlet(4P)	6.55	4.2	26	60	-
	O&G Trap Inlet(4P)	7.34	<4.0	14	36	-

## NOISE LEVEL MEASUREMENT IN DBA

Station	Monitoring	DAY		NIGHT		
No.	Stations	Min.	Max.	Min.	Max.	
1	Ananta Vihar	56.2	63.8	53.4	60.2	
	Colony					
2	Near MDTP	56.4	72.3	55.0	69.7	
3	Near NBVL Park	58.4	68.5	56.4	63.1	
4	Officers Club,JNC	57.6	63.1	52.4	58.9	

## **GROUND WATER LEVEL MONITORING DATA**

Station No.	Date	Location	Ground Water Level(mtr)
1	30-11-20	Piezometer NoMTP 04	3.90
	23-01-21	Piezometer NoMTP 04	3.55

## **AMBIENT AIR QUALITY DATA**

Staton	Monitoring	Concentration (µg/m³)									
No.	Stations	PM	[2.5	PM10 Sox		Nox		SPM			
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Compli	Compliance station										
1	Near	25	73	80	230	10.90	28.76	18.60	53.07	153	313
	NVBL										
	Park										
2	Near	28	75	72	242	7.50	25.47	13.39	50.52	158	486
	MDTP										
MoEF	Standard			250		120		120		500	
2009											
Referen	Reference Station										
1	Officers	19	48	51	93	8.38	14.16	15.92	25.15	87	156
	Club										
2	Ananta	19	57	58	95	7.99	31.69	14.83	52.64	89	216
	Vihar										
	Colony										
NAAQS 2009		6	50	10	00	8	0	8	80		
Standa	Standard										

## AMBIENT AIR QUALITY DATA(NAAQS PARAMETER)

Monitoring Station	Ozone (O <sub>3</sub> ) μg/m <sup>3</sup>		Lead(Pb) µg/m <sup>3</sup>	Arsenic(As) μg/m <sup>3</sup>	Nickel(Ni) μg/m <sup>3</sup>	
	Min	Max	• 0	•	• 0	
Officers Club JNC	2.04	4.01	<0.1	<1.0	<1.0	
Ananta Vihar Colony	2.52	4.28	<0.1	<1.0	<1.0	
Standard	180(	hour)	1.0(24hours)	6.0(Annual)	20(Annual)	

## **DRINKING WATER QUALITY DATA**

Monitoring Station	Balanda water	Colony Tap	Jagannath Colony	Indian drin IS-10500:201	king standards 2
			Tap water	Acceptable	permissible
Colour(Hazen)	Min	1	1	5	15
	Max	4	4		
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	Min	1	1	1	5
(NTU)	Max	2	2		
pН	Min	6.79	6.73	6.5-8.5	No relaxation
	Max	7.34	7.34		
Total Alkalinity	Min	40	40	200	600
(mg/L)	Max	296	272		
Total Hardness	Min	229.7	58.8	200	600
(CaCO3)mg/L)	Max	361.3	365.2		
Iron(mg/L)		<0.1	< 0.1	0.3	No relaxation
Chloride	Max	10	6	250	1000
(mg/L)	Min	149	18		
Total dissolve	Max	312	108	500	2000
solid (mg/L)	Min	868	506		
Calcium(mg/L)	Max	61.89	17.28	75	200
	Min	106.6	105.01		
Copper(mg/L)		< 0.3	< 0.3	0.05	1.5
Manganese	Min	< 0.04	< 0.04	0.1	0.3
(mg/L)	Max	0.10	0.09		
Sulphate(mg/L)	Min	103.55	5.78	200	400
	Max	251.62	217.21		
Nitrate(mg/L)	Min	< 0.5	< 0.5	45	No relaxation
_	Max	31.24	20.37		
Fluoride(mg/L)	Min	< 0.3	< 0.3	1	1.5
	Max	0.67	< 0.3		
Arsenic(mg/L)		< 0.005	< 0.005	0.01	0.05
Lead(mg/L)		< 0.005	< 0.005	0.01	No relaxation
Zinc(mg/L)	Min	< 0.04	0.04	5	15
	Max	0.24	0.34		
Total Chromium	Min	< 0.01	< 0.01	0.05	No relaxation
(mg/L)	Max	<0.01	0.016		
Boron(mg/L)		<0.1	< 0.1	0.5	1.0
Cadmium(mg/L)		< 0.001	< 0.001	0.003	No relaxation



महानदी कोतफीर इस तिमिरेड ମହାନଦୀ କୋଲଫିଲ୍ସ ଲିମିଟେଡ଼

Office of the Project Officer Jagannath Colliers Jagannath Area. PO: Balanda, Dist. Angul. Odisha

Art 150 9001 2003 & , 100 20

पत्रांक-: पीओ/जे.एन.सी/२०२०/ 2783

ता. 20.06.2020

To

The Member Secretary Odisha State Pollution Control Board

Sub-: Submission of Bank Guarantee of Rs. 3987.74 Lakhs for the work to be under taken towards remediation plan and natural & community resources augmentation plan as advised by MoEF &CC, New Delhi in 32"d EAC meeting for obtaining EC of Jagannath OCP from 6.00 MTY to 7.5 MTY.

Dear Sir.

As per the minutes of 32<sup>nd</sup> EAC meeting held by MoEF &CC. New Delhi on (22<sup>nd</sup>- 23<sup>rd)</sup> April-2020 through video conference recommended the proposal for grant of Environment Clearance subject to the compliance of specific condition in-addition all standard condition, in point no-3 the Project proponent is required to submit a Bank Guarantee of an amount of Rs. 3987.74 Lakhs towards remediation plan and natural & community resources with SPCB prior to grant of EC. The works relating to the budget of Rs.3987.74 Lakhs is to be spent in the span of three years. The details is enclosed as minutes of 34th meeting of expert appraisal committee point no-34.3.5.

#### Enclosed:

1. Minutes of 32<sup>nd</sup> EAC meeting held on 22<sup>nd</sup>-23<sup>rd</sup> April-2020 involving violation of EIA notification 2006 (point no.32.4.5), (Annexure-A).

2. Minutes of 34th EAC meeting held on 04th June 2020 involving violation of EIA notification

2006 (point no.34.3.5), (Annexure-B)

3. The Bank guarantee made from SBI, MCL Complex Burla Branch for Rs.3987.74 Lakhs. dtd. 19.06.2020 to Member Secretary, State Pollution Control Board. Odhisa. (Annexure-A).

4. Notification of Ministry Of Environment, forest and climate change. New Delhi regarding deposit of Bank guarantee to State pollution control board(Annexure-D)

The Existing Environment clearance of Jagannath OCP from 6MTY to 7.5MTY is valid upto 30th June2020.

In view of above it is requested for your kind acknowledgement and assist in issuance of EC of Jagannath OCP from 6.00 MTY to 7.5 MTY from MoEF &CC. Govt. of India.

MAMIN TO

Copy to -:

1. The General Manager Envt., MCL-

2. The General Manager Lagarnath Area

3. The Area Envis Office P. Caganifa BHUBANES

भवदीय Yours Sincerely.

प्रकल्प अधिकारी/Piblect

जगन्नाथ ओसीपी/Jagannath OCP



୍ବମ ଜୋଲ୍ଫିଲ୍ଡ୍ସ୍ ଲିମ୍ନିଟେଡ୍ वर्ध कोलफील्डस लिमिटेड nanadi Coalfields Limited asidary of Coal India Limited) Office of the General Manager Jagannath Area P.O. Dara Colliery, Dist. Angul Odisha-759103 Ph: +91 (6760) 269528, 269751 Fax: +91 (6760) 269527



Ref. No. CGM(JA)/SO(C)/e-Tender(WO)/20-21/ 2292

Date:

7 -11-2020

To. Sri Bijay Kumar Pradhan, Contractor (GST No.21ADYPP5274G1Z4) At: Badasinghada, PO: N.S.Nagar, Bharatpur, Dist: Angul(Odisha) e-mail:bijaykumar.pradhan1979@gmail.com(Mobile No.9439351787)

Sub:-

Award of work for "Construction of embankment along Bangaru Nallah at Jagannath OCP under Jagannath Area (T. I.D. No.2020 MCL 177657\_1) (Bidder ID No.543056)"

Ref:-

(1) NIT No.MCL/CGM(JA)/SO(C)/e-Tender/2020-21/53, dated 15-07-2020. Bid opening date - 06-08-2020

Dear Sir,

With reference to above noted tender, the contract for "Construction of embankment along Bangaru Nallah at Jagannath OCP under Jagannath Area" is hereby awarded to you for a contract value of Rs.63,81,735.00 (Rupees sixty three lakh eighty one thousand seven hundred thirty five) only and your quoted amount excluding Goods and Services Tax(GST) is Rs.54,08,250.00 (Rupees fifty four lakh eight thousand two hundred fifty) only which is 13.87% above the estimated value. The award is subject to the following terms & conditions:-

- That an amount of Rs.70,100.00 (Rupees seventy thousand one hundred ) only deposited by you towards the earnest money through online fund transfer vide PRN No.182918543056 Bank No.66552023, (1) dtd.30-07-2020, Axis Bank is being adjusted as a part of Performance Security Deposit.
- (i) That the total Performance Security Deposit including EMD amount will be limited to 5.00% of the value of work i.e. Rs.3,19,087.00 (Rupees three lakh nineteen thousand eighty seven) only. The balance amount of performance security deposit Rs.2,48,987.00 (Rupees two lakh forty eight thousand nine hundred eighty (2) seven ) only (Rs.3,19,087.00 minus Rs.70,100.00) shall be submitted by you within 28 days from the date of issue of this letter of award/acceptance in any of the form given below:-

A Bank guarantee in the form given in the bid document, if applicable as per terms and

Govt. securities, FDR or any other form of deposit stipulated by the owner.

Demand draft drawn in favour of Mahanadi Coalfields Limited on any scheduled Bank payable at (c)

If the performance security is provided by you in the form of bank guaranteen, it shall be issued (ii) either ·

At your option by a nationalized/scheduled Indian Bank or

By a foreign bank located in India and acceptable to the employer, a)

The validity of the Bank Guarantee shall be for a period of one year or ninety days beyond b) the period of contract, whichever is more. c)

There is no AHR/ALR item in this work (iii)

If you fail to comply with the requirement as stated above it shall constitute sufficient ground for cancellation of the award of work and forfeiture of the bid security.

Contd.....P/2

- That all running on account bills shall be paid at 95% (ninety-five percent) of work value. This 5% (five percent) deduction forward. (five percent) deduction towards retention money will be the second part of security deposit.

  Refund of security deposit shall be all the definition money will be the second part of security deposit. Refund of security deposit shall be dealt as per Chause No. 4 of the general terms and conditions
- That the security deposit amount & all other deductions as stated above shall not carry any interest. (4)
- A copy of the BOQ is enclosed herewith for ready reference. (5)

(3)

- Agreement must be executed before commencement of the work. This work should be completed within a period of 75 to completed within a period of 75 (Seventy five) days time which shall be reckoned from the next (6) day of execution of agreement.
- That the arrangement of all materials including cement & steel for the total work shall be your responsibility as per terms of (7) responsibility as per terms of original tender document conditions.
- Price variation clause is not applicable for this work as per the additional terms and conditions of the NIT. (8)
- All the terms & conditions of original tender shall be applicable for this work. (9)
- The Royalty Clearance Certificate should be submitted by you from the appropriate State Govt. (10) Authorities prior to payment of Final Bill/Release of Security Deposit.
- You have to ensure implementation of CMPF and Miscellaneous Provision Act 1948 and allied scheme framed thereunder (if applicable) in respect of the workers deployed by you as per the (11) provisions of the tender documents under "CMPF" Clause.
- If available, electricity will be supplied at one point and necessary recovery of the cost of energy consumed will be made at the rates prescribed by the department from time of time. Energy meter (12)for this purpose shall be provided by you.
- The arrangement of water for the construction purpose shall be your responsibility.
- The licence as per Contract labour (R&A) Act. 1970 shall have to be obtained before (13) execution of the agreement (if applicable). (14)
- That the Insurance Policies as per Clause No. 13 (xviii) of the General terms and conditions of the tender document shall be submitted before execution of the agreement (if applicable). (15)
- That the payment to the workmen engaged on the work shall be made as per minimum wages act, in the presence of the authorized representative of the department and necessary payment ortificate shall be obtained. All other provisions made in the various made in the statutes certificate snail be obtained. All outer processing the Abolition Act. 1970 and the Contractor Labour including contract labour (Regulation & Abolition) Minimum Warrant Act. 1971 (16)Including contract labour (Regulation & Abolition) Central Rules, 1971. Minimum Wages Act, Workmen Compensation Act etc. and latest amendment thereof will be maintained by you.
- You must not engage any Child Labour during the course of execution of the contrat work within the meaning and scope of the Child Labour Prohibition & Regulation work within the meaning and scope of amended from time to time by the Govt. of India.

  Act-1986 & its relevant Act and Rules amended from time to time by the Govt. of India. (17)

Contd....P/3

Bija) Kumar Predhan

wilm

You are requested to submit the details regarding your bank account as per the Mandate form duly filled in, self-authenticated & could be a self-authenticated 2 (18) filled in, self-authenticated & certified by the concerned bank to facilitate c-Payment. That the matters relating to any dispute or difference arising out of this tender, work order and subsequent contract agreement entered into (19) contract agreement entered into based on this tender and work order shall be subject to the jurisdiction of You are requested to submitted a non-judicial stamp paper of value of Rs.50/- (Rs.20/-Rs. 10/- ) (Rupees fifty ) only for execution of the agreement for this work within a period of 28 (twenty eight) days from receipt of the execution of the agreement for this work within a period of 28 (twenty eight) days from receipt of the execution of the agreement alongwith eight) days from receipt of this letter and also attend this office for signing the agreement alongwith The copy of PAN CARD, GST Regn. Certificate, Insurance Policies (if applicable), Joint Venture (1) Agreement, Power of Attorney etc. and the balance of Performance Security Deposit and ALR amount as per Clause No. 2 (i), (ii) & (iii) above. Certificate regarding handing over of the site without any encumbrance duly signed by the authorized 60

representative of the contractor and Chief Manager (Civil), Jagannath Colliery.

Time Bound Programme for completion of the work within the scheduled time as per NIT showing physical (iii) progress of work duly signed by the authorized representative of the contractor and Chief Manager(Civil), Jagannath Colliery.

S/Sri Rajit Kumar Pradhan, Sr.Overseer(Civil), Jagannath Colliery, Jarmani Bhutia, Sub-ordinate Engineer(C), Jagannath Colliery /Site Engineer and Alok Kumar, Chief Manager(Civil), Jagannath Colliery Ængineer-in-Charge shall be responsible for recording measurement in the M.B., 1st level check measurement and 2nd level check measurement respectively for this work. However, subsequently changes if needed during process of work, may be made by the Project Authority with intimation to this office.

Please contact Chief Manager(Civil), Jagannath Colliery to start the work immediately.

STAFF OFFICER(CIVIL), JAGANNATH AREA.

#### Copy to IEM for kind information:-

Copy to:-

General Manager, Jagannath Area.) Sri Sunii Kumar Chourasia, 10FS(Retd.), Flat 9, Dutt Arcade-II, T.S. to C.V.O., MCL, HQ., Burla. | Civil Lines(Near Hotel Jacksons), Jabalpur-482001 (1)

Dy. CFM, Jagannath Area in ref. to Dy.No. FC/JA/REV/2020-21/4732/TCR/O.C../F-19/S-116, (2)

dtd. 17-11-2020 for Rs.63,81,735.00 (3) Area Finance Manager, Jagannath Area.

(4)

Project Officer, Jagannath Colliery Chief Manager(Civil) (Q.C.Depti.), MCL HQ., Burla (5)

(6)

Dy.Manager(Personnel), Jagannath Colliery (7)

Sri Alok Kumar, Chief Manager(Civil), Jagannath Colliery, (8)

Sri Jarmani Bhutia, Sub-ordinate Engineer(C), Jagannath Colliery. Sri Rajit Kumar Pradhan, Sr. Overseer(Civil), Jagannath Colliery. (9) (9)

TAFF OFFICER(CIVIL). JAGANNATH AREA.

Curnet Frydhan

MYIL



MAHANADI COALFIELDS LIMITED ମହାନଦୀ କୋଲଫଲଡସ୍ ଲମଟେଡ୍

महनदी कोलफील्ड्स लिमिटेड

Office of the Project Officer, Jaganath Colliery Jagannath Area, P.O: Balanda, Dist: Angul, Odisha Pin:759103, Ph:06760-260212, 260458, 260321 email: jagannathcolliery@gmail.com An ISO 9001:2008 & 14001:2004 Certified Project

Ref No. PO/JNC/ ENVT//2021/ 112 2

Date: 30 -03 - 2021

To

The Additional Director(S), Envt. Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, New Delhi -110003

Sub: submission of interim study report on Impact of coal mining dust on the soil quality in respect of Jagannath open cast project

Reference: Letter no. J-11015/177/2015-IA.II(M) on dated 09/09/2020

Dear sir.

The study is been conducted by Dept. of Environment science and Engineering ,IIT(ISM),Dhanbad in association with CMPDI, report is been delayed due to on going pandemic. An interim study report in reference to the term and condition/specific condition as mentioned in point N0-4 (xx) of above mentioned Environment clearance letter in respect of Jagannath open cast project 6MTPA to 7.5MTPA regarding Impact of coal mining dust on the soil quality is been submitted.

It is requested for extension of time for a period of six months for Submission of

Final report.

This is for your kind information.

Yours faithfully,

Project Officer Jagannath OCP

Copy to-

1. The Dy. Director General of Forest(Central) Eastern Regional Office, MoEF&CC, BBSR-751016





BY REGD. POST WITH AD

## STATE POLLUTION CONTROL BOARD, ODISHA

A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012
Phone-2561909, Fax: 2562822, 2560955 E-mail: paribesh1@ospcboard.org, Website: www.ospcboard.org

#### **CONSENT ORDER**

No. 5078 / IND-I-CON-199 Dt. 25.03.2021 /

#### **CONSENT ORDER NO 252**

Sub: Consent for discharge of sewage and trade effluent under section 25/26 of Water (PCP) Act, 1974 and for existing / new operation of the plant under section 21 of Air (PCP) Act, 1981.

Ref: Your online application No. <u>3241211, Dated 13-01-2021 and your online</u> reply dated <u>2.02.2021</u>

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to

Name of the Industry:

JAGANNATH COLLIERY OF M/S. MCL

Name of the Occupier & Designation: S. K. CHOUDHURY, PROJECT OFFICER

Address: JAGANNATH AREA, PO: SOUTH BALANDA, DIST: ANGUL, PIN-759116.

This consent order is valid for the period upto 31.03.2022 from date of issue of this order.

This consent order supersedes the earlier consent order issued vide Board's letter No. 3872 dated 27.3.2020.

#### **Details of Products Manufactured**

SI. No.	Product	Quantity
1.	Coal	7.5 MTPA

This consent order is valid for the specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.



# A. Discharge permitted through the following outlet subject to the standard

Out	Description	Point of	Quantity		Pre-s	cribed Standar	d
let No.	of outlet	discharge	of discharge KL/hr	рН		Fecal Coliform (MPN/100ml)	BOD (mg/l)
01	STP outlet (Domestic effluent)	On land for irrigation after treatment in STP	1 MLD (Max.)	6.5-9.0	<100	<1000	30

B. Emission permitted through the following stack subject to the prescribed standard

of Stack	height (m)	emission	Standard			
			PM (mg/Nm³)	SO <sub>2</sub>	NO <sub>x</sub>	
					_	_
				(m) PM	(m) PM SO <sub>2</sub>	(m) PM SO <sub>2</sub> NO <sub>x</sub>

C. Disposal of solid waste permitted in the following manner

SI. No.	Type of Solid waste	Quantity generated (TPD)	Quantity to be reused on site(TPD)	Quantity to be reused off site(TPD)	Quantity disposed off (TPD)	Description of disposal site.
	Top soil/over burden	As per approved mining plan				As per approved mining plan



#### D. **GENERAL CONDITIONS FOR ALL UNITS**

- The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made 1. in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
- The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / and products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control 2. equipment / system etc.
- The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without 3. the previous written permission of the Board.
- The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. . In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.
- The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order. 5.
- The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation. 6.
- This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any 7. natural water course.
- 8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
- 9. An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
- 10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
- Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and 11. maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been taped by the consumer for utilization for any purposes whatsoever. 12.
- Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
  - a) Industrial cooling, spraying in mine pits or boiler feed,
  - b) Domestic purpose
- The applicant shall display suitable caution board at the lace where the effluent is entering into any water-body or any other place to be 13. indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
- Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow 14. measuring devices will be installed
- The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be 15. leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm
- The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or 16. systems install or used by him to achieve with the term(s) and conditions of the consent.
- Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic 17. lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made
- The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining 18 access into any drainage channel or other water courses either directly or by overflow.
- The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any 19.
- If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of 20. dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
- The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank. 21.
- The effluent treatment units and disposal measures shall become operative at the time of commencement of production. 22.
- The applicant shall provide port holes for sampling the emissions and access 23 platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.
- The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / 24.



- 25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
- 26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous
- 27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner and to ion of standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
- 28. The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.
- There shall not be any fugitive or episodal discharge from the premises.
- 30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
- 31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
- 32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurence.
- 33. The industry has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
- 34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as no to cause fugitive emission, dust problems through leaching etc., of any kind.
- 35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
  - Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
  - ii) Controlled incineration, wherever possible in case of combustible organic material.
  - iii) Composting, in case of bio-degradable material.
- 36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
- 37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
- 38. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
- 39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
- 40 Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
- 41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
- 42. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
- 43. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate

# GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).

- The applicant shall analyse the emissions every month for the parameters indicated in TABLE .B & C as mentioned in this order and shall furnish the report thereof to the Board by the 10<sup>th</sup> of the succeeding month.
- The applicant shall provide and maintain at his own cost three ambient air quality monitoring stations for monitoring Suspended Particulate Matter, Sulphor Dioxide, Oxides of Nitrogen, Hydro-Carbon, Carbon-Monixide and monitor the same once in a day/week/fortnight/month. The data collected shall be maintained in a register and a monthly extract be furnished to the Board.
- The applicant shall provide and maintain at his own cost a meteorological station to collect the data on wind velocity, direction, temperature, humidity, rainfall, etc. and the daily reading shall be recorded and the extract sent to the Board once in a month.



- The applicant shall forward the following information to the Member Secretary, State Pollution Control Board, Orissa, Bhubaneswar regularly.
  - a. Report of analysis of stack monitoring, ambient air quality monitoring meteorological data as required every month.
  - b. Progress on planting of trees quarterly.
- 5. The applicant shall install mechanical composite sampling equipment and continuous flow measuring / recording devices on the effluent drains of trade as well as domestic effluent. A record of daily discharge shall be maintained.
- The following information shall be forwarded to the Member Secretary on or before 10<sup>th</sup> of every month.
  - a. Performance / progress of the treatment plant.
  - b. Monthly statement of daily discharge of domestic and/or trade effluent.

#### 7. Non-compliance with effluent limitations

- a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
  - i) Causes of non-compliance
  - i) A description of the non-compliance discharge including its impact on the receiving waters.
  - Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
  - iii) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
  - iv) Steps to be taken by the applicant too prevent the condition of non-compliance.
- b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
- Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.
- 8. The applicant shall at his own cost get the effluent samples collected both before and after treatment and get them analysed at an approval laboratory every month for the parameters indicated in Part-D and shall submit in duplicate the report thereof to the Board.
- 9. The addition of various treatment chemicals should be done only with mechanical dosers and proper equipment for regulation of correct dosages determined daily and for proper uniform feeding. Crude practices such as dumping of chemicals in drains or sumps or trickling of acids or alkalies arbitrarily and utilizing poles for stirring etc. should not be resorted to.
- 10. In the disposal of treated effluent on land for irrigation, the industry shall keep in view of the need for;

Rotation of crops

Change of point of application of effluent on land

A portion of land kept fallow.

- 11. The adoption of these would avoid soil becoming sick or slate, the industry may ensure this in consultation with the Agriculture Department.
- 12. It is the sole responsibility of the industry to ensure that there are no complaints at any time from the royats in the surrounding areas as a result of discharge of sewage or trade effluent if any.
- Proper housekeeping shall be maintained by a dedicated team.
- 14. The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned. Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.



#### E. SPECIAL CONDITIONS:

- Mining operation is subject to availability of all other statutory clearances required under relevant Acts/Rules.
- Excavation of coal shall be done using surface miners. The surface miner shall be operated along with dust control measures.
- Drills shall either be operated with dust extractors or equipped with water injection system to minimize dust generation in the work environment. Controlled blasting shall also be done and blasting shall be carried out during day time.
- 4) Coal handling plant/ Crusher unit shall be operated with adequate dust extraction system or dry fog system for dust suppression. Loading, unloading areas and conveyor systems including all transfer points and coal stack yard shall have adequate dust suppression measures. The pollution control systems shall be properly maintained and operated.
- The house keeping in CHP shall be improved by 31.5.2021.
- 6) Proper water spray system with rain guns shall be provided all along the coal stockyards of the mine to deal with fugitive dust and coal fire.
- 7) All internal coal transportation roads shall be black topped/concreted. Necessary dust suppression measures shall also be taken in these roads to prevent generation of dust during movement of vehicles. Plantation of thick leaf trees on both sides of the road shall be done.
- Mobile water sprinkling shall be provided for dust suppression on the temporary quarry haul roads and sprinkling of water shall be done at desired intervals so as to prevent generation of fugitive dust.
- 9) All internal coal transportation roads, temporary mine haul roads and other material transportation roads of the mine shall be maintained properly to avoid creation of ruts and pot holes.
- 10) The transportation of coal shall be carried out as per stipulations in the Environmental Clearance Order of the mine.
- Coal transportation through roads shall be done in covered vehicles.
- 12) Instant water shower system at the exit point of the quarry shall be provided by 31.7.2021 and all heavy vehicles loaded with coal shall move through the instant shower system. Mechanized wheel washing facility for coal transport vehicles at the exit point of the quarry or at the coal stack yard as per the requirement shall be provided. The wheel washing facility shall be integrated with complete recirculation system.



- The railway sidings, if any, shall have adequate fixed water sprinkling system to prevent generation of dust during unloading and loading activities. In addition to this, firefighting system shall be in place to control fire in the coal stack yard of railway sidings.
- 14) Fog canons shall be deployed at the railway sidings, if any, for control of fugitive dust emission.
- More mobile fog canons shall be deployed at various dust generating activities of mine to bring down the ambient air quality within stipulated standard. This shall be done by 31.7.2021.
- Provision of vertical greenery system shall be provided at the stockyards and railway siding by 31.12.2021.
- Appropriate action shall be taken to enhance rake loading facility for coal transportation through rail.
- All necessary precaution shall be taken to prevent fire in coal stack yards and coal seams. Necessary precautionary measures, inter alia, maintaining a minimum stock shall be taken to avoid fire hazards in the coal stack yard.
- Ambient air quality measured at a distance of 500m from the dust generating sources {Loading or un-loading, haul road, coal transportation road, coal handling plant (CHP), Railway siding, Blasting, Drilling, overburden dumps or any other dust generating source like nearby roads etc.} in the down wind direction shall meet the following standards.

# Pollutant Concentration in (micrograme/m³) (24 hourly) SPM - 500 RPM - 250 SO2 - 120 NOx - 120

In case any residential or commercial or industrial place falls within 500 metres of any generating sources, the National Ambient Air Quality Standards for industrial area notified shall be applicable.

20) Adequate Ambient Air Quality Monitoring Stations (at least 04 nos.)shall be established in core as well as in buffer zone at the locations as decided in consultation with the Regional Officer, State Pollution Control Board. Monitoring of parameters shall as SPM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> shall be done.



- 21) Monitoring of Ambient Air Quality of the mine shall be done once in a fortnight (24 hourly) and data shall be submitted to the State Pollution Control Board once in six months.
- 22) Continuous real time ambient air quality monitoring stations shall be installed at appropriate locations keeping in view the criteria specified for coal mines in Environment (P) Rules, 1986/Standards specified in the consent order. Numbers of continuous online monitoring stations with data transfer facility to SPCB server shall be decided keeping in view the cumulative impact of all operating coal mines in Talcher area and in consultation with the Regional Officer, SPCB. The number of stations finalized for Talcher area shall be intimated to the Board in an area map with their co-ordinates.
- 23) The top soil and overburden shall be removed separately and stored it in separate heaps, duly covered with grass and vegetation or utilized for backfilling of mined out area.
- 24) Concurrent backfilling of mined out area shall be done. The backfilled area shall be technically and biologically reclaimed.
- 25) Action shall be taken for removal of residual coal going along with over burden so that spontaneous fire in the dump site can be eliminated. Water sprinkling arrangements shall also be provided at the coal seam faces and active dump sites to control fire.
- 26) The surface runoff generated from the mining area as well as railway siding during monsoon shall be diverted to adequate size of sedimentation pond or mine sump for storage and use. Systems shall be in place for collection and channelizing the surface runoff to the sedimentation pond/mine sump.
- 27) Strata water generated during mining operation shall be diverted to the available sump for storage and use.
- No disposal of strata water & runoff to outside shall be allowed under any circumstances.
- 29) Water from sedimentation pond or mine sump shall be used for sprinkling purposes on haulage roads and other dust generating areas, vehicle washing and plantation activities.



30) Workshop from where water pollution due to wash out of oil and grease and suspended solids is expected, Effluent Treatment Plant (ETP) shall be operated at all the time and the quality of the treated wastewater shall remain within the following standards and shall be re-used for washing of vehicles:

PH - 6.5 -8.5 TSS - 50 mg/l Oil & grease - 10 mg/l COD - 150 mg/l

No wastewater from workshop shall be allowed to be discharged to outside under any circumstances.

31) Domestic effluents shall be treated in a sewage treatment plant (STP) and or shall be discharged to soak pit via septic tank constructed as BIS specification. The treated wastewater quality of STP shall remain within the following standards and shall be used for plantation:

pH - 6.5 -9.0 TSS - <100 mg/l BOD - 30 mg/l Fecal Coliform - <1000 MPN/100 ml.

- Acid mine drainage water if any, shall be treated adequately and used only for sprinkling activity.
- Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells. The monitoring should be done four times a year in pre-monsoon (April/May), monsoon (August), post-monsoon (November) and winter (January) seasons. Data thus collected should be submitted to the Board quarterly.
- 34) Adequate measures shall be taken for control of noise levels below the following limits.

(6.00 AM – 10.00 PM) - Leq 75 dB(A) (10.00PM – 6.00 AM) - Leq 70 dB(A)

- 35) Ambient air quality monitoring data, noise monitoring data and wastewater quality monitoring data shall be electronically displayed at the entry point of the mine or at a suitable location of the mine.
- 36) IP cameras shall be installed at major dust prone areas of the mine such as coal face, coal stockyards, coal haul roads, transportation roads, railway sidings, etc. and they shall be connected SPCB server.
- 37) The mine shall take action to increase the supply of drinking water in the peripheral villages.



- Plantation of trees shall be undertaken in the colony/ township, over top soil dumps, OB dumps, along the side of haul road and in other areas of the mines not being utilized for mining activities. The mine shall take up avenue plantation and plantation in nearby village areas in consultation with DFO/Horticulture Department. The plantation details shall be submitted to the Board by end of April every year.
- 39) The annual coal production status shall be submitted to the Board latest by 30<sup>th</sup> April every year.
- 40) The environmental statement report for the financial year ending 31<sup>st</sup> March shall be submitted to the Board in form-V on or before 30<sup>th</sup> September every year.

MEMBER SECRETARY
STATE POLLUTION CONTROL BOARD, ODISHA

To

ix)

SRI S. K. CHOUDHURY, PROJECT OFFICER, JAGANNATH COLLIERY OF M/S. MCL, JAGANATH AREA, PO: SOUTH BALANDA, DIST: ANGUL, PIN-759116.

Consent Register

Memo No	/Dt/
	onwarded to :
i)	Regional Officer, State Pollution Control Board, Angul.
ii)	District Collector, Angul
iii)	Director of Mines Govt of Odisha Bhubaneswar
iv)	Director, Environment-cum-Special Secretary, F & E. Dept. Govt. of Odisha,
,	Bhubaneswar.
v)	D.F.O ,Angul
vi)	Deputy Director of Mines, Talcher
vii)	Chief Env. Engineer (Hazardous waste management cell)
viii)	Chief Env. Scientist, Central Lab. SPCB, Bhubaneswar

CHIEF ENV. ENGINEER(M)
STATE POLLUTION CONTROL BOARD, ODISHA

# GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS



# GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS PART -A: EFFLUENTS

SI.No.	Parameters			Standards	
		Inland surface	Public sewers	Land for irrigation	Marine Costal Areas
		(a)	(b)	(c)	(d)
l.	Colour&odour	Colourless/Odou rless as far as practible		See 6 of Annex-1	See 6 of Annex-1
2.	Suspended Solids (mg/l)	100	600	200	For process wastewater – 100 b. For cooling water effluent 10% above total suspended matter of influent.
3.	Particular size of SS	Shall pass 850			
5.	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6.	Temperature	Shall not exceed 5°C above the receiving water temperature			Shall not exceed 5°C above the receiving water temperature
7.	Oil & Grease mg/l max.	10	20	10	20
8.	Total residual chlorine	1.0			1.0
9.	Ammonical nitrogen (as N) mg/l max.	50	50		50
10.	Total Kajeldahl nitrogen (as NH <sub>3</sub> ) mg/1 max.	100			100
11.	Free ammonia (as NH <sub>3</sub> ) mg/1 max.	5.0			5.0
12.	Biochemical Oxygen Demand (5 days at (20°C) mg/1 max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/1 max.	250			250
14.	Arsenic (as As) mg/1 max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/1 max.	0.01	0.01		0.001
16.	Lead (as pb) mg/1 max	01.	1.0		2.0
17.	Cardmium (as Cd) mg/	2.0	1.0		2.0



18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0		1.0
19.	Total Chromium (as Cr) mg/l max.	2.0	2.0		2.0
20.	Copper (as Cu) mg/l max.	3.0	3.0		3.0
21.	Zinc (as Zn) mg/l max.	5.0	15		15
22.	Selenium (as Sc) mg/l max.	0.05	0.05		0.05
23.	Nickel (as Nil) mg/l max.	3.0	3.0		5.0
24.	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25.	Fluoride ( as F) mg/l max.	2.0	15	T	15
26.	Dissolved Phosphates (as P) mg/l max.	5.0			
27.	Sulphide (as S) mg/l max.	2.0			5.0
28.	Phennolic compounds as (C <sub>6</sub> H <sub>5</sub> OH) mg/l max.	1.0	5.0		5.0
9.	Radioactive materials  a. Alpha emitter micro curle/ml.  b. Beta emitter micro curle/ml.	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>8</sup>	10 <sup>7</sup>
0.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
1	Manganese (as Mn)	2 mg/l	2 mg/l		2 mg/l
2.	Iron (Fe)	3 mg/l	3 mg/l		3 mg/l
l.	Vanadium (as V)	0.2 mg/l	0.2 mg/l		0.2 mg/l
	Nitrate Nitrogen	10 mg/l			20 mg/l



# NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighed		Concentrate of	
		Average	Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
/45	(2)	(3)	(4)	(5)	(6)
(1)	(2)	Annual *	50	20	-Improved west and Gaeke
1.	Sulphur Dioxide (SO <sub>2</sub> ), μg/m <sup>3</sup>	24 Hours **	80	80	- Ultraviolet fluorescence
2.	Nitrogen Dioxide	Annual *	40	30	- Modified Jacob & Hochheiser ( Na-Arsenite)
	(NO <sub>2</sub> ), μg/m <sup>3</sup>	24 Hours **	80	80	- Chemiluminescence
3.	Particulate Matter (size	Annual *	60	60	-Gravimetric - TOEM
	less than 10µm) or	24 Hours **	100	100	- Beta Attenuation
4.	PM <sub>10</sub> µg/m <sup>3</sup> Particulate Matter (size	Annual *	40	40	-Gravimetric - TOEM
	less than 2.5µm) or	24 Hours **	60	60	- Beta Attenuation
5.	PM <sub>2.5</sub> μg/m <sup>3</sup> Ozone (O <sub>3</sub> ) μg/m <sup>3</sup>	8 Hours **	100	100	- UV Photometric - Chemiluminescence
		1 Hours **	180	180	- Chemical Method
6.	Lead (Pb) µg/m³	Annual *	0.50	0.50	-AAS/ICP method after sampling on EMP 2000 or equivalent filter
		24 Hours **	1.0	1.0	paper ED-XRF using Teflon filter
7.	Carbon Monoxide	8 Hours **	02	02	- Non Dispersive Infra Red (NDIR Spectroscopy
	(CO) mg/m <sup>3</sup>	1 Hours **	04	04	
8.	Ammonia (NH <sub>3</sub> ) μg/m <sup>3</sup>	Annual*	100	100	-Chemiluminescence - Indophenol Blue Method
		24 Hours**	400	400	11111
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) μg/m <sup>3</sup>	Annul *	05	05	-Gas Chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP)- Particulate phase only, ng/m³	Annual*	01	01	-Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), ng/m <sup>3</sup>	Annual*	06	06	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.	Nickel (Ni),ng/m <sup>3</sup>	Annual*	20	20	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

<sup>\*\*</sup> Annual arithmetic mean of minimum I04 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

<sup>\*\* 24</sup> hourly or 08 hourly or 0I hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.



2564033/2563924 EPAEX : 2581909/2562547

#### OFFICE OF THE STATE POLLUTION CONTROL BOARD, ODISHA

Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar - 751 012

BY REGD POST

No. 11986

IND-II-NOC - 6181

Date 04 10 2018

#### OFFICE MEMORANDUM

In consideration of the online application no. 2153272 for obtaining Consent to Establish for Jagannath Colliery of M/s Mahanadi Coalfields Ltd., the State Pollution Control Board is pleased to convey its Consent to Establish under section 25 of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 for enhancement of coal production capacity from 6.0 MTPA to 7.5 MTPA over an area of 578.426 ha. (involving increase in mine lease area from 430.736 ha. to 553.946 ha. as per land requirement breakup enclosed as Annexure- I), At/Po -Bolanda, Talcher in the district of Angul with the following conditions.

#### GENERAL CONDITIONS:

- 1. This Consent to establish is valid for the product, method of mining and capacity mentioned in the application form. This order is valid for five years. The proponent shall commence mining activities for the proposal within a period of five years from the date of issue of this Consent to Establish order. If the proponent fails to commence mining activities for the proposal within five years then a renewal of this consent to establish shall be sought by the proponent.
- 2. The mine shall apply for grant of Consent to operate under section 25/26 of Water(Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commencement of production and obtain Consent to Operate from this Board.
- 3. This consent to establish is subject to statutory and other clearances from Govt. of Odisha and/or Govt. of India, as and when applicable.

#### SPECIAL CONDITIONS:

#### A. GENERAL CONDITIONS:

- 1. The proponent shall comply to the conditions imposed in Environmental Clearance issued vide letter No. J-11015/177/2005-IA II(M), date 06.09.2018.
- 4. The mine should not store for more than seven days of coal production to avoid coal fire in stock yard as well as coal seam. The mine shall take adequate preventive measures for spontaneous fire in the coal seam as well as stock yard and an action plan regarding this shall be submitted at the time of consent to operate application.

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- The method of mining shall be opencast mining by shovel-dumper in overburden and surface miner, loader and tipper in coal. No change in mining technology and scope of working shall be made without prior approval of the Board.
- 6. A green belt of adequate width and density preferably with local species along the periphery of the mine, inactive dumps, backfilled area, vacant area and any other vacant area shall be raised so as to provide protection against particulates and noise to ameliorate the environment. A detailed plantation programme in this regard shall be prepared and submitted at the time of making application for consent to operate for assessment.
- Adequate measures shall be taken for control of noise levels below 85 dB (A) in the work environment.
- 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 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 Organization.
- 10. The Board may impose further condition or modify the conditions stipulated in this order during installation, and / or at the time of obtaining consent to operate and may revoke this clearance in case the stipulated conditions are not implemented and / or any information suppressed in the application form.
- 11. The conditions as stipulated in this consent to establish order will be enforced, interallia, 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.
- The proponent shall use fly ash bricks and other building materials made out of fly ash for construction of township.
- The proponent shall install solar powered lighting and heating system whenever possible in township.

#### B. WATER POLLUTION:

- The mine shall construct settling tanks in series to settle the suspended solids in the surface run-off water.
- 15. Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the hourly peak rain fall and maximum discharge in the area adjoining the mine site. Sump capacity should have adequate retention period to allow proper settling of silt material.
- 16. Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data. The detail specification shall be worked out and submitted to the Board.

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- 17. Catch drains of appropriate size should be constructed to divert the run off from the OB dump to the siltation pend of appropriate size to arrest silt and sediment flows from soil, OB and mineral dumps. Similar arrangement shall be done around the coal stack pile area. The drains should be regularly desilted and maintained properly. Surface run-off from OB dump area, coal pile area, top soil storage area shall be routed through adequate settling pend (designed maximum hourly rain fall basis) to meet prescribed standard of SS-100 mg/l and Oil & Grease-10 mg/l before discharge into natural stream/water courses during monsoon.
- 18. Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells. The monitoring should be done four times a year in pre-monsoon (April/May), monsoon (August), Post monsoon (November) and winter (January) seasons. Data thus collected should be submitted to the Board quarterly.
- 19. The domestic wastewater generated shall be treated in Sewage Treatment Plant of capacity 1.0 MLD to meet the following standards as notified by the MoEF&CC, Govt. of India vide G.S.R. 1265 (E), dated 13.10.2017. The treated water shall be reused for flushing, gardening and plantation to the maximum possible extent.

SI. No.	Parameters	Standards
1	На	6.5-9.0
2	BOD(mg/l)	30
3.	TSS(mg/l)	<100
4	Fecal Coliform (MPN/100ml)	< 1000

- 20. Oil and grease trap shall be installed before discharge of effluent from workshop. Wastewater from the mine pit, check dams or any other discharge leaving lease boundary of the mine should be properly collected, treated so as to conform the following standard i.e. pH = 5.5 9.0, SS = 100 mg/l, COD = 250 mg/l & Oil & Grease = 10 mg/l.
- 21. Rain water harvesting practice shall be followed by utilizing the rain water collected from the roof of the buildings for recharging of ground water within the premises and other large structures as per the concept and practices prescribed by CPCB, New Delhi and details of which is available in the web site.

#### C. AIR POLLUTION:

- 22. Transportation road shall be black topped / concreted.
- 23. Transportation of coal from the face to pit top shall be undertaken by tippers/ dumpers, surface to TTPS by closed conveyors, surface to sidings by tippers and siding to loading by pay loaders.
- 24. High efficiency bag filters shall be installed at crushers of the Coal Handling Plant. Water sprinkling systems shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points etc. Provision of movable chutes shall be made during loading at CHP to avoid free fall of coal.



- The mine shall provide dust extractor in drill machines, Fixed sprinkler at CHP, railway siding etc., Mobile water tanker for quarry, haul road, transport road, CHP, etc.
- 26. The mine shall develop wind barrier wall of 10 meters height all around the coal stack yard to control fugitive coal dust emission.
- The mine shall provide newly introduced system i.e. Fog Cannon for dust suppression.
- Water sprinkling shall be carried out on unplanted surface of OB dump to control fugitive emission.
- Drilling shall be avoided to the maximum possible extent. However, drill should be wet operated or with dust extractors and controlled blasting should be practiced.
- 30. The mine shall provide water or water mixed chemicals for dust suppression at all strategic points such as coal stack yards, loading and unloading points, all transfer points, conveyors etc. to suppress dust fine atomizer nozzles arrangement shall be provided on the coal heaps and on land around the crusher / pulverizes. As far as possible conveyors and transfer points etc. shall be provided with enclosures.
- 31. Four (4) ambient air quality monitoring stations for 24 hours operation should be established in the core zone as well as in the buffer zone for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> monitoring. Location of the stations should be decided based on the metrological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.
- 32. Data on ambient air quality (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>) shall be regularly submitted to the State Pollution Control Board once in six months.
- 33. The mine shall comply the following standard at the loading or unloading, haul road, coal transportation road, coal handling plant (CHP), railway siding, blasting, drilling, overburden dumps or any other dust generating external sources as per the Rule 2(1) of the Environmental Amendment Rules, 2000 notified vide notification G.S.R. 742 (E), dated 25.09.2000.

Pollutant	Time weighted average	Concentration in Ambient Air	Method of Measurement
1	2	3	4
SPM	Annual Average* 24 hours**	360µg/m³ 500µg/m³	High volume sampling (Average flow rate not less than 1.1 m³/min)
RPM(size less than 10 µm)	Annual Average* 24 hours**	180µg/m³ 250µg/m³	Respirable Particulate matter sampling and analysis
SO <sub>2</sub>	Annual Average* 24 hours**	80µg/m³ 120µg/m³	Improved west and Gaeke method Ultraviolet fluorescene
NO <sub>2</sub>	Annual Average* 24 hours**	80μg/m³ 120μg/m³	Jacob & Hochheiser Modified (Na-Arsenic) Method Gas phase Chemiluminescence



(\*Annual Arithmetic mean for the measurements taken in a year, following the guidelines for frequency of sampling laid down in clause-2.

\*\*24 hourly/ 8 hourly values shall be met 92% of the time in a year. However, 80% of the time may exceed but not on two consecutive days.)

34. The haul roads and arterial roads shall be made black topped / concrete with avenue plantation.

# D. SOLID WASTE:

- 35. The proponent shall mix the fly ash generated by nearby thermal power plant with OB for back filling of the mine void as per fly ash notification of MoEF&CC, Govt. of India.
- 36. Intermediate storage area for Municipal Solid Waste (MSW) shall be developed inside the premises of township before handing over the MSW to the concerned ULBs for final disposal.
- 37. The proponent shall segregate organic waste from the MSW of township and segregated organic waste shall be converted to manure through organic waste converter. The proponent shall store the organic waste in closed shed inside the township before use the same in organic waste converter.
- 38. All required sanitary and hygienic measures should be in place before starting construction activities of township and to be maintained throughout the construction phase.
- 39. All the top soil excavated during construction activities of township should be stored for use in horticulture / landscape development within the project site.
- 40. Disposal of muck during construction phase of township should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- The proponent shall comply the provisions of Construction & Demolition Waste Management Rules, 2016.
- 42. Construction spoils of township, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.
- 43. The Hazardous Wastes generated from the mine shall be stored on concrete floor under covered shed
- 44. The Project proponent shall dispose off hazardous waste materials such as tarry products, lead containing products, paints & pigments residues, broken fluorescent and mercury lamps during construction and operational phase as per Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 as amended from time to time.
- 45. Municipal solid waste generated from the township shall be disposed off as per Solid Waste Management Rules, 2016.



- 46. Top soil of mining area shall be stacked separately with proper slope at earmarked site (s) with adequate measures and shall be used for reclamation and rehabilitation of mined out areas.
- 47. Back filling of abandoned pit shall be carried out as per approved mining plan. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status in this regard shall be submitted to the Board on yearly basis. The mine shall explore the possibility for back filling of mine voids by fly ash generation from nearby thermal power plant.

MEMBER SECRETARY

To,

The Project Officer,
Jagannath Colliery of M/s MCL,
At – Jagannath Area, P.O.-South Balanda,
Dist. - Angul, Odisha.

Memo No. 11987 /Dt. 04.10.2018 /

Copy forwarded to:

- 1. The Secretary Steels & Mines, Govt. of Odisha, Bhubaneswar
- 2. The Collector & District Magistrate, Angul.
- 3. The Director, Directorate of Mines, Govt. of Odisha, Bhubaneswar
- The Regional Officer, SPC Board, Angul.
- 5. The DFO, Angul.
- Copy to HSM Cell, SPC Board, Bhubaneswar
- Consent to Operate Section, SPC Board, Bhubaneswar.
- 8. Copy to Guard file

CHIEF ENV. ENGINEER

· - - 4 ~ 6 7

# Land Requirement Break-up (in Ha.) for Jagannath Colliery of M/s Mahanadi Coalfields Ltd.

			Evicting (ha)			Additional (ha.)		Grand
Ū	Particulars		Existing (ma.)	L		Man format	Total	Total
Š		Forest	Non-forest	Total (ha.)	Forest	(Govt. and Tenancy)	(ha.)	(ha.)
4	Break up of mining lease area			010	253	120.68	123.21	476.726
1	Organia excavation	80.206	273.310	353.510	2.33	0000	000	36 470
2	External dumps	0.000	36.470	36.470	0.000	0.000	3	
i	(in old Jagannath OCM only)					0000	0000	40 750
		000	40 750	40.750	0.000	0.000	90.0	
က်	Infrastructure like workshop,	0.000	2					
	store, CHP and land between							
	infrastructure							
	(In old Jagannath OCM)			001	25.0	120 680	123.21	553.946
	Sub-total (A)	80.206	350.530	430.736	6.33			
	(Mining lease area)							
•	o and area outside mining lease area in ha.	ng lease are	ea in ha.			070.07	13 210	24.480
۵	Dreak-up of gross of	000	11.270	11.270	0.000	13.210		707 70
-	Land for Rehabilitation colony	0.000	010	44 270	0.00	13.210	13.210	74.400
	Sub-total (B)	0.000	0/7:11	11.610	250	133 890	136.420	578.426
	(A+R)	80.206	361.800	442.006	7.33	20000		
	Grand Total (ATD)							



M/s Jagannath Colliery

Talcher

\*\*DWLR - Digital Water Level Recorder

Project Name:

Town:

Project Address:

भारत सरकार जल शक्ति मंत्रालय जल संसाधन, नदी विकास और गंगा संरक्षण विभाग केन्द्रीय भूमि जल प्राधिकरण Government of India Ministry of Jal Shakti Department of Water Resources, River Development & Ganga Rejuvenation Central Ground Water Authority

Talcher

Block:

## (भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

M/s Jagannath Colliery, South Balanda

# NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

			7 · · · · · ·				$\neg$	State: Odisha							
District:				Anugul	Anugul				_	oldle.	Odisna				
Pin	Code:				759116							Name of Street, Street,			
Communication Address:				M/s Ja	M/s Jagannath Colliery, Talcher, Anugul, Odisha - 759116  Central Ground Water Board South Eastern Region, Bhujal Bhawan, Khandagiri Square,										
Add	ress of CGV	VB Regio	onal Offic	æ:	Centra NH-5,	l Grour Bhuba	nd Wat neshwa	ter Boa ar, Odi	ard South sha - 75	000	astern Reg 01	ion, Bhuj	al Bhav	van, Khar	ndagiri Square
. [	NOC No.:		CGWA	VNOC/	MIN/OR	IG/2020	0/7354						Taxas		
2.	Application No.: 21-4/1902/OR			₹/MIN/2018					3.	3. Category:			Mining		
Project Status: Existing Project			ect					5.	i. NOC Type:		Ne	New			
_	Valid from:	31/01/							7.	7. Valid up to:			30/01/2022		
8.	a		raction Pe	ermitte	d:										
Ground Water Abstraction Permitted:     Fresh Water Saline Water							Dewatering				Total				
		1	year	m³/day n		n³/year		m³/da	tay m³/		/year	year m³/		m³/year	
_	III /uay		your						1924.	70 7022		260.00	1924.70 7		702260.00
_	Details of o	round w	ater abst	raction	/Dewate	ring str	ructure	s	100						
Details of ground water abstraction /Dewatering structures     Total Existing No.:3							Total Prop				posed	osed No.:0			
DW			DCB	BW	TW	MP	DW	$\neg$	DCB	BW	TW		MP		
Abstraction Structure* 0			0	0	0	3	0		0	0	0		0		
	N- Dug Well	1 Structu				-	lell: TV	V-Tube	Well; M	P-I	Mine Pit				
	N- Dug Well	; DCB-D	ug-cum-t	Boie vv	chopies	ting/m³	(vear).	1				92787	6.00		
10.	. Quantum	of ground	d water re	echarge	e/i lai ves	ung(m	rycar).		Manifering Mechanism					m	
11	<ol> <li>Number of Piezometers (Observation wells) to be constructed/ monitored &amp; Monitoring mechanism.</li> </ol>							lo. of ometers		Monitoring Mechanism					
	constructe	.5						Manual	DWLF	**	DWLR	With Telemetr			
4															

(Compliance Conditions given overleaf)

Digitally signed by NANDAKUMARAN P Date: 2020.02.05 18:16:51 +05'30'

सदस्य (केन्द्रीय भूमि जल प्राधिकरण) Member (CGWA)

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011 Phone: (011) 23383561 Fax: 23382051, 23386743

Website: cgwa-noc.gov.in

पानी बचाये – जीवन बचाये SAVE WATER - SAVE LIFE

# Validity of this NOC shall be subject to compliance of the following mandatory conditions:

1. No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).

2. The proponent shall seek prior permission from CGWAfor any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).

3. All new as well as existing ground water abstraction/ de-watering structures shall be fitted with digital water flow meters by the firm at its own cost immediately on completion of their construction or grant of NOC as the case may be. In case of renewal of NOCs, all existing ground water abstraction structures shall continue to be fitted with digital water flow meters. Intimation of installation of flow meters shall be sent by the proponent to the Regional Director of CGWB within 6 months of grant of NOC. Daily ground water abstraction data shall be monitored / continue to be monitored (in case of renewal) by the firm and recorded in a log book. Details of month-wise ground water abstraction shall be submitted to the Regional Director, CGWB, once every year.

4. In case the ground water abstraction is more than 10 m³/day, monthly water level monitoring data shall be maintained and submitted annually to the Regional Office of CGWB. Wherever groundwater withdrawal is more than 500 m³/day,the firm shall install telemetry system in one of the piezometers and share USER ID

and password of the telemetry system with the Regional Director, CGWB.

5. In case ground water abstraction is more than 10 m³/day, ground water quality shall be monitored once in a year (during pre- monsoon period) and the report submitted to the Regional Office, CGWB. Wherever the extraction is less than 10 m³/day, ground water quality report shall be submitted by the proponent at the time of submission of self-compliance report.

6. Ground water augmentation/harvesting measures, as stipulated in the NOC, shall be implemented (in new cases) / continue to be maintained (in case of renewal) in consultation with the concerned Regional Director,

7. Proof of recharge/water harvesting structures constructed (photographs of structures) shall be submitted to the concerned Regional Director, CGWB within 6 months from the date of issue of NOC. The firm shall also undertake periodic maintenance of recharge/water harvesting structures at its own cost.

8. The project proponent shall take all necessary measures to prevent contamination of ground water in the

premises failing which the firm shall be responsible for any consequences arising thereupon.

9. In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.

The firm shall optimize water use through recycling/ reuse of waste water after proper treatment.

11. Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.

12. In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and

November) in core as well as buffer zones of the mine.

13. Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned

Regional Director, Central Ground Water Board.

14. The firm shall report compliance of the NOC conditions online in the website (www.cgwa-noc.gov.in) within one year from the date of issue of this NOC.

15. This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of effluents or any such matter as applicable.

16. This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and

administrative clearances from appropriate authorities.

17. The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.

18. This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases

related to ground water or any other related matters.

19. Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment(Protection)Act, 1986.

20. In case of any violation of NOC conditions or illegal extraction of Ground water the firm shall be liable to pay "Environmental Compensation"/ "Penalty", if any under Sec 15 of EPA 1986 as and when decided by statutory authorities.

(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)





Tel: 2564033/2563924 EPABX: 2561909/2562847 E-mail: hwmd@ ospcboard.org / paribesh1@ ospcboard.org Website: www.ospcboard.org

# STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit - VIII

Bhubaneswar - 751012, INDIA

BY SPEED POST

#### FORM 2

[See rule 6(2)]

RENEWAL OF AUTHORISATION BY STATE POLLUTION CONTROL BOARD, ODISHA TO THE OCCUPIER UNDER HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016

- 1. Number of authorization: IND-IV-HW-225/ 4923 and date of issue: 24-03-2021
- 2. Reference of application (No. and date): 2407062, dtd. 15-03-2019 / 08-03-2021.
- Jagannath Colliery of M/s Mahanadi Coalfields Limited is hereby granted an authorization based on the enclosed signed inspection report for generation, storage, transport, reuse, utilization, disposal or any other use of hazardous or other wastes or both in the premises situated At - Jagannath Area, Po - South Balanda, Dist - Angul, Odisha - 759116.

#### **Details of Authorization**

SI. No.	Category of Hazardous Waste as per the Schedules I, II and III of these Rules	Waste Description	Quantity	Mode of Disposal
1.	Schedules - I Stream - 5.1	Used / Spent Oil	18.4 T/A	Storage in containers over impervious floor under well ventilated covered shed followed by disposal through actual users having valid authorization from SPCB, Odisha
2.	Schedules - I Stream - 35.4	Oil and Grease Skimming Residues	14 T/A	Storage in impervious pits / containers under well ventilated covered shed followed by sale to actual users / Authorized HW incinerator / Common Hazardous Waste Treatment Storage Disposal Facility (CHWTSDF), Jajpur / Co-processing in Cement Kiln authorized by SPCB, Odisha

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these Rules	Waste Description	Quantity	Mode of Disposal
3.	Schedules - I Stream - 3.3	Filters and Filter Material Contaminated with oil	0.31 T/A	Storage in impervious pits / containers over concrete floor under well ventilated covered shed followed by disposal in the Authorized HW incinerator / Co-processing in Cement Kiln authorized by SPCB, Odisha / CHWTSDF, Jajpur

- (1) The authorization shall be valid up to 31-03-2022.
- (2) The authorization is subject to the following general and specific conditions.

#### A. General Conditions of authorisation:

- 1. The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
- 2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
- 3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
- 4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorisation.
- 5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire, etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
- 6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty". Any accident in this respect shall be intimated to the Board immediately.
- 7. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
- 8. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
- 9. An application for the renewal of an authorisation shall be made as laid down under these Rules.

- Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- 11. Annual return shall be filed by 30<sup>th</sup> day of June of every year for the preceding period from April to March.

#### **B. Specific Conditions:**

- 1. Authorization granted herewith does not relieve you in complying with other provision laid down under Water (PCP) Act, 1974, Air (PCP) Act, 1981 and Environment (Protection) Act, 1986, and the Rules made there under.
- 2. This authorization is subject to statutory and other clearances from Govt. of Odisha and / or Govt. of India as and when applicable.
- 3. In case the quantity of generation of hazardous Waste exceeds the Authorized quantity, the industry / mine shall apply for amendment of Authorization order.
- 4. The industry / mine shall strictly comply to the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and amendments made thereafter.
- 5. Annual returns in Form 4 (See Rules- 6 (5), 13 (8), 16 (6) & 20 (2)) shall be submitted to the Board for the financial year by 30<sup>th</sup> June of every year. It shall contain the detail quantities of generation, storage and disposal of different type of hazardous wastes such as recyclable, incinerable, land disposable.
- Steps shall be taken for reduction and prevention of the hazardous waste generated or for recycling or reuse.
- 7. Environmental Information with respect to Air, Water, Hazardous Waste and Hazardous Chemicals shall be displayed at the main gate for public view.
- 8. The transport of the hazardous and other waste shall be in accordance with the provisions of the Rule, 2016 and the rules made by the Central Government under the Motor Vehicles Act, 1988 and the guidelines issued by the Central Pollution Control Board from time to time in this regard.
- 9. The occupier shall provide the transporter with the relevant information in **Form 9**, regarding the hazardous nature of the wastes and measures to be taken in case of an emergency and shall label the hazardous and other wastes containers as per **Form 8**.

- 10. In case of transportation of hazardous waste and other wastes for recycling or utilization including co-processing to outside the state, the sender shall intimate both the State Pollution Control Boards before handing over the waste to the transporter.
- 11. Manifest system (Movement document) shall be strictly followed as per Rule-19 and to be submitted to this office as per the Rule. The industry / mine shall check the authenticity of the way bill of the transport vehicle to ensure supply of hazardous waste to the authorized destination.
- 12. The hazardous waste shall be sold if required only to Actual User having valid authorization from the State Pollution Control Board, Odisha and concerned SPC Board. Details of such wastes shall be entered in the passbook issued by respective SPCB.
- 13. All the hazardous waste shall be stored in impervious pits / containers / floors under cover shed with adequate capacity having spill containment facility. The spilled hazardous waste shall be re-collected and stored in impervious pits / containers / floors under cover shed prior to sale / disposal.
- 14. The schedule of hazardous waste and the quantity as specified shall only be disposed off as per the stipulation prescribed in this authorisation.
- 15. This authorization does not permit you to either receive and process or generate hazardous waste in case validity of Consent to Operate of your industry / mine ceases. However you can carry out handling, storage, treatment, transport and disposal of hazardous waste and other wastes generated previously during such period to avoid accumulation of hazardous waste.
- 16. The industry / mine shall store the accumulated hazardous waste for a period not exceeding 90 days and shall dispose as per the stipulation prescribed in this authorisation order. In case of any violation, authorization granted shall be suspended / cancelled.
- 17. The industry / mine shall apply for renewal of authorization in Form 1, 120 days before expiry of this authorization order enclosing Annual Return in Form 4, Manifest copies in Form 10 and compliance to the conditions stipulated in this order along with adequate processing fees.
- 18. In case of transportation of hazardous and other waste, the responsibility of safe transport shall be either of the sender or the receiver whosoever arranges the transport and has the necessary authorisation for transport from the concerned State Pollution Control Board. This responsibility should be clearly indicated in the manifest.
- 19. Hazardous Wastes having calorific value of more than 2500 Kcal/Kg shall not be landfilled. It can only be disposed through authorized actual users or incinerated in authorized Hazardous Waste incinerator or co-processing in authorized cement kiln.

#### C. Additional Conditions:

1. This authorization does not permit you to either receive and process or generate Hazardous Wastes in case validity of CTO ceases.

Member Secretary

To

The Project Officer
Jagannath Colliery of M/s Mahanadi Coalfields Limited
At - Jagannath Area, Po - South Balanda,
Dist - Angul, Odisha - 759116

Memo No.

4924

Dt. 24-03-2021

Copy to the:

- 1. Collector & District Magistrate, Angul.
- 2. Director, Factories & Boilers, Odisha, Bhubaneswar.
- 3. Regional Officer, State Pollution Control Board, Odisha, Angul.
- 4. Guard file.

Chief Environmental Engineer

0/6

# MONSOON PREPARATION PLAN 2020-2021

# JAGANNATH COLLIERY JAGANNATH AREA, MCL

# MONSOON PREPARATION FOR THE YEAR, 2020-21, JAGANNATH COLLIERY.

1. Name of the mine:	Jagannath Colliery.
2. Name of the Area:	Jagannath Area.
3. Total Catchments Area of the mine:	38,02,008 M <sup>2</sup>
	a) Central sump - 11, 43, 000 Sqm b) West sump - 9, 96, 000 Sqm c) Coal face sump- 110,000 Sqm
4. Sump Capacity (in Cum)	a) Central sump - <b>68,97,000 Cum</b> . i) Already filled with water-62,40,000 Cum ii) Present balance capacity- 6,57,000 Cum. iii) Maximum rainfall may accumulate in the sump- 2500 mm iv) Water in flow in Cum considering 200 mm rainfall in a day - 22,8,600 Cum. b) West sump - <b>1,37,50,176 Cum.</b> i) Already filled with water-134,70,000 Cum ii) Present balance capacity- 2,80,176 Cum. iii) Maximum rainfall may accumulate in the sump- 780 mm iv) Water in flow in Cum considering 88 mm rainfall in a day-1,99,200 Cum  c) coal face sump- 7,46,250 Cum i) Already filled with water-6,70,250 Cum ii) Present balance capacity-76,250 Cum. iii) Maximum rainfall may accumulate in the sump- 1320 mm iv) Water in flow in Cum considering 200 mm rainfall in a day-22,000 Cum
5. Max. Rainfall in "mm" in a day during last 05 years:	200 mm. on 12.10.2013.
6. Total accumulation of water in the sump: -	<ul> <li>i. Central sump : 25,1,460 Cum.</li> <li>in a day considering 220 mm. of max. Rainfall</li> <li>ii. West sump : 2,19,120 Cum.</li> <li>and 10% seepage from strata</li> <li>iii. Coal Face sump : 24,200 Cum.</li> </ul>
7. Existing Pumping capacity: -	i. Central sump- 200 LPS ii. West sump - 200 LPS
	iii. Coal Face sump- 660 LPS
8. No of pumps available in Unit/Mine: -	10 Nos
9. No of floating pumps in operation: -	07 Nos

# DETAILS OF PUMP.

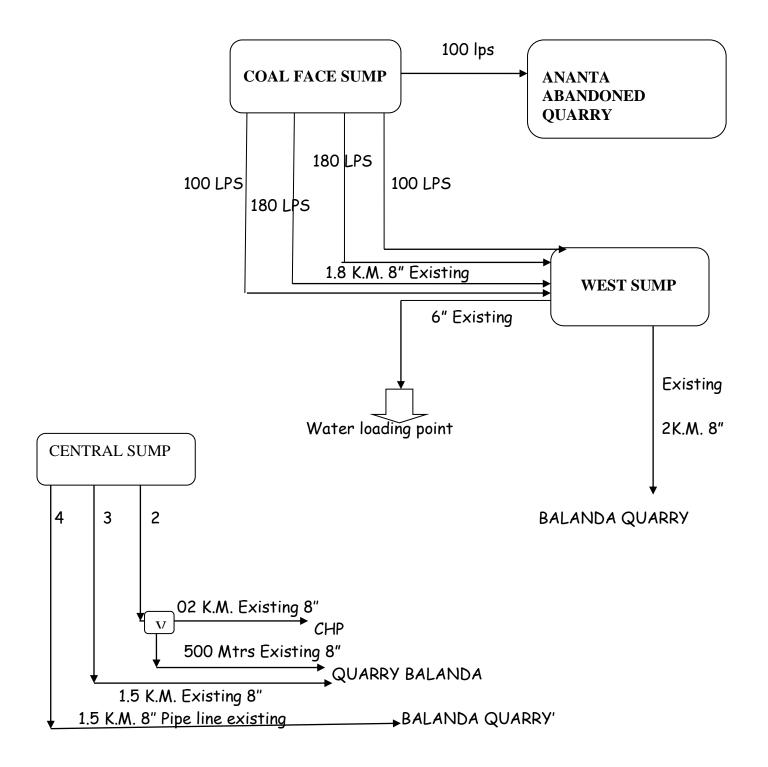
Sl.	Location	Total no. of	Details of Pumps	Additional	Justification/Remar
No	of Pump.	Pump in	Make, Type, Capacity, Head,	pump require	ks.
	_	operation.(Sump	HP/KW, Voltage, Dia. of Suction	(With quantity & detail	
		wise details)	& Delivery pipe line etc.	specification.)	
1.	coal face	05 Nos. Pump	1. 02 nos. M&P DST- 150/200,		For dewatering of
	sump	Installed.	Head- 120 Mtrs.,		rain water from out
			Discharge-200 LPS		sourcing coal face
			2. 02 nos. M&P DST- 200/250,		sump to Rakash
			Head- 150 Mtrs.,		Bahal Village and
			Discharge-360 LPS		West Sump.
			3. 01 Kiloskar 8UP4,.		
			Head- 120 mtrs. Discharge-		
			100 LPS (1350 GPM).		
2.	West	02 nos. pumps	1. 01 no. Kiloskar 6UP4, Head-		
	sump	Installed.	65 mtrs. Discharge-100 LPS		
			(1350 GPM). Water loading		
			point .		
			2. 01 no. M&P,SCT 150/48.2,		
			Head- 120 Mtrs. Discharge-		
			150 LPS (2000GPM).		
3.	Central	03 nos. pumps	1. 01 no. M&P DST- 150/200,		To deliver water to
	Sump	Already	Head- 120 Mtrs., Discharge-		the CHP.
		installed.	100 LPS.		
			2. 01 no. M&P DST- 150/200,		
			Head- 120 Mtrs., Discharge-		
			100 LPS.		
			3. 01 no. Kiloskar 6UP4, Head-		
			65 mtrs. Discharge-100 LPS		
			(1350 GPM).		

# PUMP DETAILS:-

Sl.No	Location of Sump.	No of pumps Installed.		Pump Ca	pacities.	No of hours in operation.	
		Normal season	Rainy season	Normal season	Rainy season	- Ореганоп.	
1.	Central Sump.	02	02+01 (Proposed)	300 LPS	390 LPS + 300 LPS	15 Hrs. during normal seasons & 18 Hrs. during rainy season.	
2.	West Sump	01 + 01 ( one no. is for water loading.)	02 + 01	120 LPS + 150 LPS(Water loading)	220 LPS + 150 LPS(Water loading)	15 Hrs. during normal seasons & 18 Hrs. during rainy season.	
3.	Coal Face	05	05	660 LPS	660 LPS	20 Hrs. during rainy season.	

# **DETAILS OF PUMPING:-**

Sl. No	Name of the sump	Quantity/Hr. considering 18 hr. pumping.	Pumping capacity installed.	No of Main pumps in operation during rainy season.	Sump capacity
1.	West sump:-	21646.4 cum	120 + 100 LPS	02 + 01 (To be installed)	1,37,50,176 cum.
2.	Central sump:-	22608.5 cum	200 LPS	02 + 01(To be installed)	68,97,000 cum.
3.	Coal face sump	6493.9 cum	660 LPS	06	7,46,250 Cum



# **MONSOON ACTIVITIES:-**

# **Haul road & CT road.**

Work	Total	Repairing	Estimate Date	Work Order Date	Commence	Completi
Name	Length	regd. In			ment date	on date
	existing	length.				
Haul	500		09.01.2020,			
road	mtrs.		PO/JNC/Civil/19-20/02			
(internal)						
CT Road	6.23 KM		12.06.2018,	MCL/SAMB/Civil/E-	27.07.2019	1.05.2020
			PO/JNC/Civil/2018/157	Tender/AOC/19-		
				20/428, 07.06.19		

**Garland Drain** 

		O 0111101 - 1 011111			
Existing	Required	New	Remark		
			Natural Slope of the ground level of top OB is dipping towards Bangaro Nallah.		

Sl. No	Activity.	Present status.	Requirement	Comm enceme nt Date	Complet ion date	Respons ibility.
1.	Preparation of Sump	There are 03 permanent sumps beyond working areas namely east sump, central sump, & west sump. The above sumps are dealing the monsoon water of catchment area. No further permanent sump is required.  There are 03 mine sumps. Presently 05 nos. of pumps are installed and in operation to dewater the accumulated water. No further sump preparation is required.  East 01 Central 03 West 02 Mine sump = 05	N.A.			
2.	Repairing of Pontoons	Out of 10 nos. 07 have been installed on pontoon and 03 nos. on surface (wooden slipper)	1. 03 nos. pontoon required. Proposal has been initiated already (vide no- PO/JNC/E&M/	20.02.2	05.03.20	i. PE (E&M) ii. S.O.

			SS/177, Dtd.04.01.20 2. Drum collection			(E&M),J A.
3.	Installation of pumps at different sump as per requirement.	10 nos. of pumps already installed in different sumps	Addition 02 nos. pumps have to be installed.	31.01.2 0 15.02.2 0	03.02.20 20.02.20	PE (E&M)
4.	Laying / extension of delivery pipe.	About 10 KMs pipe line existing	i. 2 KMs. (New pipe) 8" dia. ii. 500 Mtrs. (New pipe) 8" dia.	As & where require.	Before 31 <sup>st</sup> March	i. Supply HQ. ii. Distributi on & laying:- PE (E&M).
5.	Construction/ extension of overhead line		i. Shifting of over headline 3.3 KV. Pump feeder. ii. maintenance of 11KV. OH line main feeder. iii. Trimming of trees.	20.03.2 0 30.04.2 0 30.04.2 0	31.03.20 15.05.20 15.05.20	PE (E&M) PE (E&M)
6.	Electrical maintenance / repair of switch gears, transformers & Sub-Stations.	All are in use	i. Three nos. field switch. ii. Three nos. of starters.	01.03.2 0 01.03.2 0	31.03.20 31.03.20	PE (E&M)
7.	General Lighting	Not sufficient as per lighting standard.	i. 250 WT- 50 nos. ii. 400 WT- 100 nos.	Continu ous process		i. S.O. (E&M),J A ii. PE (E&M)
8.	a.Sub Station Maintenance i. Relay Test ii. NGR Test iii. Gang Switch Maintenance iv. Interlocking test v. Transformer oil dielectric test vi. Earth Pit test vii. VCB/OCB test b. OH line checking i. Running earth line checking ii. Lighting arrester iii. OH insulation checking	<ul> <li>i. Done on 19.03.2019</li> <li>ii. Not working</li> <li>iii. Gang switches are in operation</li> <li>iv. Done on Dec-2019</li> <li>v. Done on 29.07.2018</li> <li>vi. Checked in every quarter</li> <li>vii. Testing done as and when required</li> <li>i. As and when required</li> <li>ii. 15 sets</li> <li>iii. As and when required</li> </ul>	02 Nos Nil		01.05.20- 31.05.20- 01.05.20- do- 01.05.20- 15.05.20 01.05.20- 15.05.20 01.05.20- -15.05.20- do- do-	PE (E&M)
9.	Construction / repair of pump shed	04 nos. of shed already provided	Two more to be constructed	15.03.2 0	31.3.20	Safety Officer.
10.	Top soil removal	Going on				
11.	Repairing / construction of haul road in the mine area.	Regular process	To be done as per requirement.	Before monsoo n		OB In- charge
12.	Cleaning of drain from welcome Gate to Kali Mandir junction.	Estimate to be pressed in March/ April 2020	During rainy day 1x(650+350)x0.	Before 30 <sup>th</sup> Septem		PE (Civil),J NC.

				ber 2020	
13.	Cleaning of drain from Traffic chowk to Railway Siding- I	Estimate to be pressed in March/ April 2020	1x680x1.00	Before 30 <sup>th</sup> Septem ber 2020	PE (Civil)
14.	Cleaning of drain from HEMM Workshop gate to ROB along Pilot Quarry and from coal stock near CHP to Culvert near Light Vehicle Garage.	Estimate to be pressed in March/ April 2020	1x1100x1.00	Before 30 <sup>th</sup> Septem ber 2020	PE (Civil)
15.	Cleaning of drain from ETP to Culvert near F/C stock and disposal of slush in haul road & CT road in mine premises during monsoon	Estimate to be pressed in March/ April 2020	1x850x1.00	Before 30 <sup>th</sup> Septem ber 2020	PE (Civil)
16.	Cleaning of drain from Balanda old conveyor and in front of Dhaba and approach to Project Office, JNC	Estimate to be pressed in March/ April 2020	1x700x1100	Before 30 <sup>th</sup> Septem ber 2020	PE (Civil)
17.	Cleaning of drain from east sump to sedimentation Pond (MDTP)	Estimate to be pressed in March/ April 2020	1x650x1.00	Before 30 <sup>th</sup> Septem ber 2020	PE (Civil)
18.	Cleaning of drain from PCTPL Garage to L/V Junction.	Estimate to be pressed in March/ April 2020	1x650x1.00	Before 30 <sup>th</sup> Septem ber 2020	PE (Civil)
19.	Earthwork by mechanical means	Estimate to be pressed in March/ April 2020	3.2x12.00x1.00	Before 30 <sup>th</sup> Septem ber 2020	PE (Civil)
20.	Cleaning of Hume pipe culverts	Estimate to be pressed in March/ April 2020	During rainy day	Before 30 <sup>th</sup> Septem ber 2020	PE (Civil)
21.	Construction of temporary C.T. Road inside mine for seam –II (500 mtrs)	Estimate under presses.	15 <sup>th</sup> Jan 2020	Before 30 <sup>th</sup> June 2020	PE (Civil),J NC, SO(Civil ), JA
22.	Indent of procurement of Hume pipes for culvers in mines at Jagannath Colliery, Jagannath Area.	Indent under presses.	1200mm - 30 pcs 900mm - 30 pcs 600mm - 20pcs	Before 30 <sup>th</sup> June 2020	SO(MM) , JA.

## **CIVIL WORK TO BE DONE**

Sl.No.	Name of work	Approx. amount in lakhs
1.	Cleaning of drain from welcome Gate to Kali Mandir junction.	1.42
2.	Cleaning of drain from Traffic chowk to Railway Siding- I	1.87
3.	Cleaning of drain from HEMM Workshop gate to ROB along Pilot Quarry and from coal stock near CHP to Culvert near Light Vehicle Garage.	1.95
4.	Cleaning of drain from ETP to Culvert near F/C stock and disposal of slush in haul road & CT road in mine premises during monsoon	1.48
5.	Cleaning of drain from Balanda old conveyor and in front of Dhaba and approach to Project Office, JNC	1.93
6.	Cleaning of drain from east sump to sedimentation Pond (MDTP)	1.50
7.	Cleaning of drain from PCTPL Garage to L/V Junction.	1.85
8.	Earthwork by mechanical means	19.00
9.	Cleaning of Hume pipe culverts	1.90
10.	Construction of temporary C.T. Road inside mine for seam –II (500 mtrs)	84.00
	Tot	al= 116.90

### **HELP REQUIRED**

SI. No	Description	Quantity require	Present Status	Responsibility
1.				
	a) Rotating assembly of	02 no.		
	DST 150/200 pump.		To be	
	b) Rotating assembly of	01 no.	indented	
	SCT 150/48.2 pump. c) Rotating assembly of	01 no.		Project
	8UP4-200/250.	or no.		Engineer
	d) EST 200/250	02 no.		(E&M)
2.	MS Pipe 8"(200mm) dia	2 KMs.		(26.1.)
3.	MS Pipe 6" (150mm)dia	1.0 KM.		
4.	Jetting Hose 6"x6mtrs.	06 nos.		
5.	Jetting Hose 8"x3mtrs.	08 nos.		
6.	MS Flange 8"	600 nos.		
7.	MS Flange 6"	700 nos.		
8.	MS Flange 10"	40 nos.		
9.	MS Flange 4"	100 nos.		
10.	MS Bend 10"	06 nos.		
11.	MS Bend 8"	10 nos.		
12.	MS Bend 6"	04 nos.		
13.	Sluice Valve (Heavy Duty)8"	12 nos.		
14.	Sluice Valve(Heavy Duty)6"	12 nos.		
15.	Non Return Valve (Heavy Duty)8"	08 nos.		
16.	Non Return Valve (Heavy Duty)6"	10 nos.		
17.	Foot Valve 10"	10 nos.		SO (E&M)/
18.	Foot Valve 8"	08 nos.		Project
19.	Drums	400 nos.		Engineer
20.	M. S. nuts & bolts	700 Kg		(E&M)
21.	Dog conductor 125 sq.m	02 Km. + 02 KM.		
22.	Squirrel conductor 22 sq.m	05 Km + 01 KM.		
23.	PVC armoured copper cable 3.3. KV grade 3 core 70 sq.mm/50 sq. mm	600 mtrs.		
24.	PVC armoured copper cable 3.3. KV grade 3 core 50 sq.mm	400 mtrs.		
25.	XIpe armoured copper cable 11 KV grade 3 core 70 sq.mm.	200 mtrs.		
26.	PVC armoured aluminium cable	200 mtrs.		

	1.1 KV grade 3 & 1/2 core 240		
	sq.mm		
27.	HT tubular 12 Mt.	60 nos.	
28.	Tubular 8mt-10mt	60 nos	

- 1. Working Mine Plan showing location of Pump and delivery range, haul roads, CT Road, Power supply line etc.:- Enclosed
- 2. Line diagram of Pumps, delivery range with sump capacity: Submitted in a separate page.
- 3. 2 K.M. 8" dia pipe line required for new pipe line lying as well as repairing work.
- 4. 1 K.M. 6" dia pipes required for new range of pipe line from coal face to Rakash Bahal village .

Project Manager, Project Engr.(E&M), P.E. (Civil), Safety Officer, Asst. Mgr(Survey.)

JNC. JNC. JNC. JNC. JNC.

# MAHANADI COALFIELDS LIMITED OFFICE OF THE PROJECT OFFICER JAGANNATH COLLIERY

महानदी कोलफील्ड्स लिमिटेड

ମହାନଦୀ କୋଲ ଫିଲଡ଼ସ ଲିମିଟେଡ

PO: BALANDA, DIST: ANGUL, ODISHA-759116 Tel: 06760-260212, 260458, 260321 email: jagannathcolliery@gmail.com

AN ISO 9001:2008 & 14001:2004 CERTIFIED PROJECT



Ref.No. PO/JNC/Safety/Monsoon/2020/

Date. .01. 2020.

To
The Area Safety Officer,
Jagannath Area.

Sub: - Monsoon preparation for the year 2020-21.

Dear Sir,

Enclosed please find herewith the detail monsoon preparation plan and Programme filled up in the prescribed format containing all information as desired for the year 2020-21 with respect to Jagannath Colliery.

This is for your kind information and necessary action.

Yours faithfully,

**Encl: As above.** 

**Project Officer,** 

# **Jagannath Colliery.**

## Copy to;-

- 1. The Project Manager, JNC.
- 2. The Safety Officer, JNC.
- 3. File.

### CHECK LIST FOR MONSOON PREPAREDNESS 2018 in JAGANNATH COLLIERY

### A. General

Sl. No.	Check Points	Status	Time line	Remark
1.	Preparation of a Mine specific	Prepared/	Prepared	
	checklist for monitoring all	Not prepared		
	activities of Monsoon activity			
	plan 2018.			
2.	Development of Emergency	Developed/	Developed	
	Response System	Not Developed		
3.	Identification/Monitoring of	Identified/	Not	
	potential sources of water inrush	Not Identified	Identified	
4.	Establishment of control room to	Established/	Established	
	function round the clock to deal	Not Established		
	with any eventuality in case of			
	an accident/disaster and to			
	ensure flow of information's			
	higher up			
5.	Haul road preparation at OC	Prepared/	Prepared	
	mines, which are to be used	Not prepared		
	during monsoon period.			
6.	Filling up all known Surface	Completed/	Complied	
	cracks, pot holes, sub sided &	Not completed		
	low laying areas			

## B. Drainage System at Mine and Railway Siding

|--|

1.	Garland drain cutting	Completed/	N.A.	
1.	Gariand drain cutting	1 -	IV.A.	
		Not Completed		
	Internal drain cutting	Completed/	N.A.	
		Not Completed		
2.	Garland drain cleaning	Completed/	N.A.	
		Not Completed		
	Internal drain cleaning	Completed/	Going on	
		Not Completed		
3.	Diversion of nullah if any	Completed/	Not Applicable	
		Not Completed		
4.	Construction/Repairing of	Completed/	Not Applicable	
	retaining	Not Completed		
5.	Checking of embankments	Completed/Not	Not Applicable	
	& Bunds constructed	completed		
	against the nullahs, jores,	•		
	rivers etc. for their			
	effectiveness			
6.	Cleaning of drains at	Completed/Not	Not Applicable	
	Railway Siding	completed		
7.	Cleaning of drains at coal	Completed/Not	Going on	
	stock yard	completed		

C. Sump and Pumping Management

e. sam	o and i uniping management			1
Sl. No.	Check Points	Status	Time line	Remark
1.	Assessment of installed pumping	Assessed/ Not	Assessed	
	capacity vis-à-vis make of water	Assessed		
	or water in flow through			
	catchment area.			
2.	Sump Cleaning	Completed/ Not		
		Complited		
3.				
4.				
5.				
6.				

गहानदी कोलफील्ड्स लिगिटेड

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email: jagannathcolliery@gmail.com

AN ISO 9001:2008 & 14001:2004 CERTIFIED PROJECT



Ref.No. PO/JNC/Safety/Monsoon/2020/27

Date. 03 .01. 2020.

To
The Area Safety Officer,
Jagannath Area.

Sub: - Monsoon preparation for the year 2020-21.

Dear Sir,

Enclosed please find herewith the detail monsoon preparation plan and Programme filled up in the prescribed format containing all information as desired for the year 2020-21 with respect to Jagannath Colliery.

This is for your kind information and necessary action.

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Encl: As above.

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19.	Drums	400 nos.		Project
20.	M. S. nuts & bolts	700 Kg		Engineer (E&M)
			9	
21.	Dog conductor 125 sq.m	02 Km. + 02 KM.		
22.	Squirrel conductor 22 sq.m	05 Km + 01 KM.		
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24.	PVC armoured copper cable 3.3. KV grade 3 core 50 sq.mm	400 mtrs.		
25.	XIpe armoured copper cable 11 KV grade 3 core 70 sq.mm.	200 mtrs.		
26.		200 mtrs.		
27.	HT tubular 12 Mt.	60 nos.		
28.	Tubular 8mt-10mt	60 nos		

1. Working Mine Plan showing location of Pump and delivery range, haul roads, CT Road, Power supply line etc.:-**Enclosed** 

2. Line diagram of Pumps, delivery range with sump capacity: Submitted in a separate

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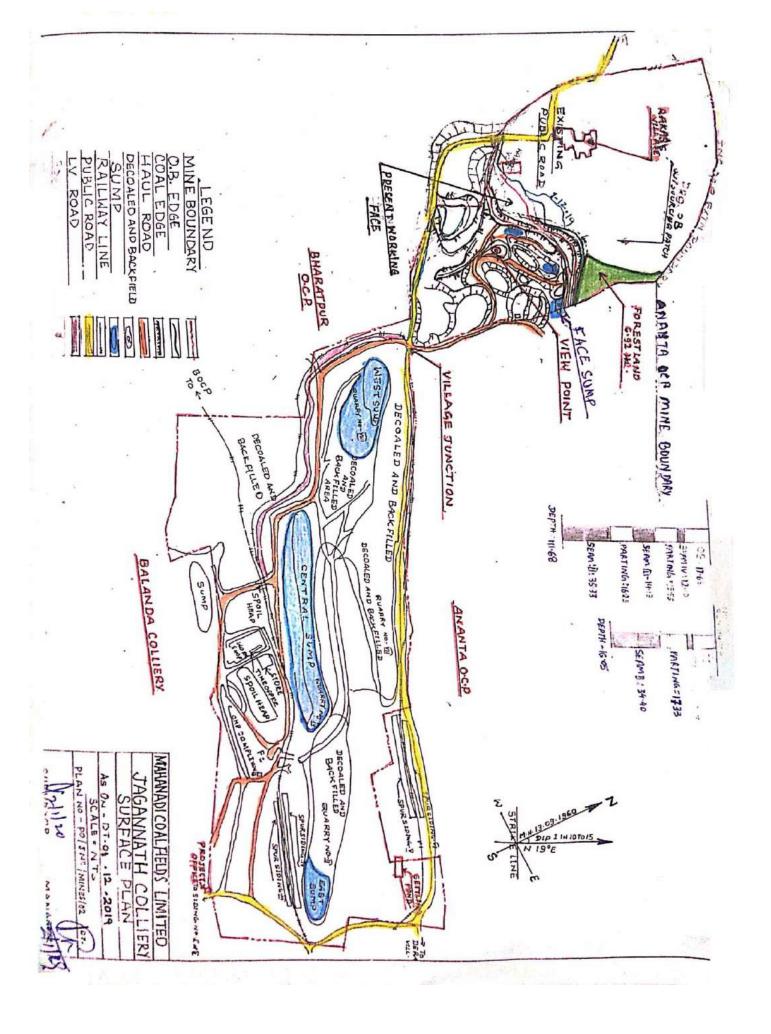
Safety Officer,

Asst. Mgr(Survey.) JNC.

JNC.

JNC.

JNC.



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AN ISO 9001:2008 & 14001:2004 CERTIFIED PROJECT



# EMERGENCY RESPONSE PLAN, JAGANNATH COLLIERY. JAGANNATH AREA.

#### **DUTY OF EVERY PERSON:-**

Any who notice a fire, in rush of water or major accident, shall take immediate steps to control or aid with whatever appliances are available at the site. He will take the help of other persons available at the site.

He shall also give the message of the fire or inrush of water or major accident to the nearest available Mining Sirdar/Overman/ Foreman or any mine official or to the time office.

#### **DUTY OF THE TIME KEEPER:-**

On receiving any information of any fire inundation or a major accident in the mine from any source he shall blow 10 times of the hooter provided, declaring state of emergency. He shall inform (i) Senior most Mine Official present in the mine, over walkie-talkie, and (ii) the following persons over walkie-talkie or Telephone or by a special messenger, if required. The

persons to intimated with their telephone numbers are enclosed.

Sl	Name	Office No.	Mobile No.
No.			
1	Project Officer	260212	9437561362
2	Manager	260458	9437420797
3	Safety Officer	260321	9438493619
4	Personnel Manager		8114984259
5	Area Safety Officer		9438879832
6	Fire station, Talcher	269382	
7	Project Engineer (E&M)		9438878095
8	Project Engineer (Excv.)		9438878096
9	Project Engineer (Civil)		7064779869
10	Survey Officer		9438879954
11	Area Medical Officer		9437426285
12	Finance Manager		9438878275
13	Depot . Officer		9438877149
14	Colliery Police Station	240278	
15	Rescue Station	249630	

On receiving any information of an emergency situation in any mine of the Area, he will contact the GM or any senior executive present at the station.

1. After consulting the GM or Project Officer or Manager if required he will convey the message to out side in the following order.

Sl	Person	Office.
No.		
1	Fire station, Talcher	240222
2	Fire Station, Angul.	230222
3	Rescue Station	249630
4	Police Station (Gopal Prasad Out Post)	272260
5	CGM(S&R),MCL HQ	2542772

6	DT(O)	2542775
7	DT(P&P)	2542772
8	DMS, BBSR Region	2302561

#### **DUTY OF THE SHIFT INCHARGE:-**

On receiving any information of any fire, inrush of water or a major accident in the mine, from any source, the shift in-charge shall intimate it to the Time Keeper for giving message to Project Officer, Manager and Safety Officer over Walkie –Talkie or telephone. He shall proceed to the place of occurrence and give direction to his supervisors, thereafter.

#### **DUTY OF MANAGER:-**

On getting information about fire inrush of water or a major accident the Manager shall immediately rush to the place of occurrence.

He will keep contact with the "Time Office", Shift In-Charge, Safety Officer and other authorities and co-ordinate Rescue & recovery works.

#### **DUTY OF SAFETY OFFICER:-**

On getting information about fire, inrush of water or a major accident, the Safety Officer shall immediately rush to the place of occurrence.

He will keep contact with the "Time Office", Shift In-Charge, and other authorities and coordinate Rescue & Recovery works as per the direction of Manager.

#### **DUTY OF PROJECT OFFICER:-**

On getting information of an emergency situation in the mine, he shall co-ordinate with the Control Room, Rescue & Recovery Teams.

#### **DUTY OF PERSONNEL MANAGER:-**

On getting any emergency in the mine, he will arrange to intimate the company HQ, CGM(S&R), MCL HQ, Director Mines Safety, Rescue Station, Police Station & Medical Officer. He will arrange tea, snacks from time to time for the rescue & recovery work Accommodation facilities for the persons coming from outside for rescue and recovery works.

#### **DUTY OF FINANCE MANAGER:-**

On getting information of an emergency, he will arrange sufficient fund for procuring miscellaneous expenditure.

#### **DUTY OF STORE KEEPER:-**

On getting information of an emergency situation, he will arrange the emergency materials as per the requirement given by Manager, Project Officer & the control room.

### RESUMPTION OF WORK:-

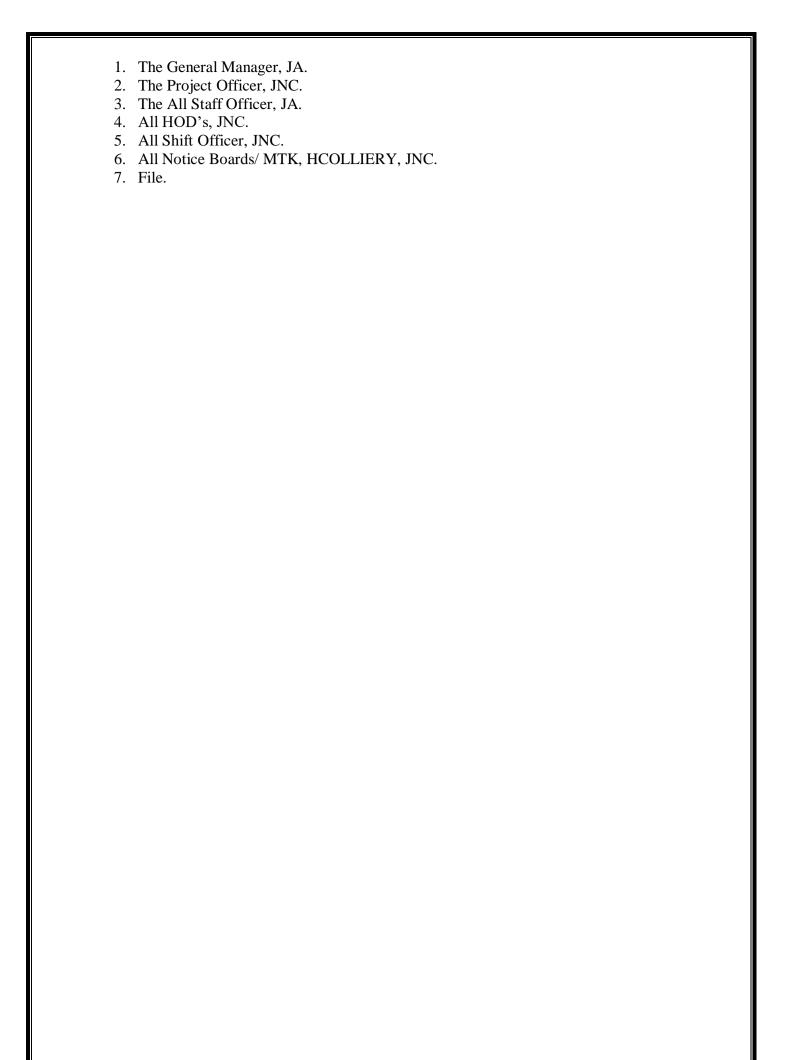
Normal work shall not be resumed in the affected area except with prior permission of the Manager or in his absence the Principal Officials present. The affected working places will be thoroughly examined by a competent person.

#### ENFORCEMENT OF THE ORDER:-

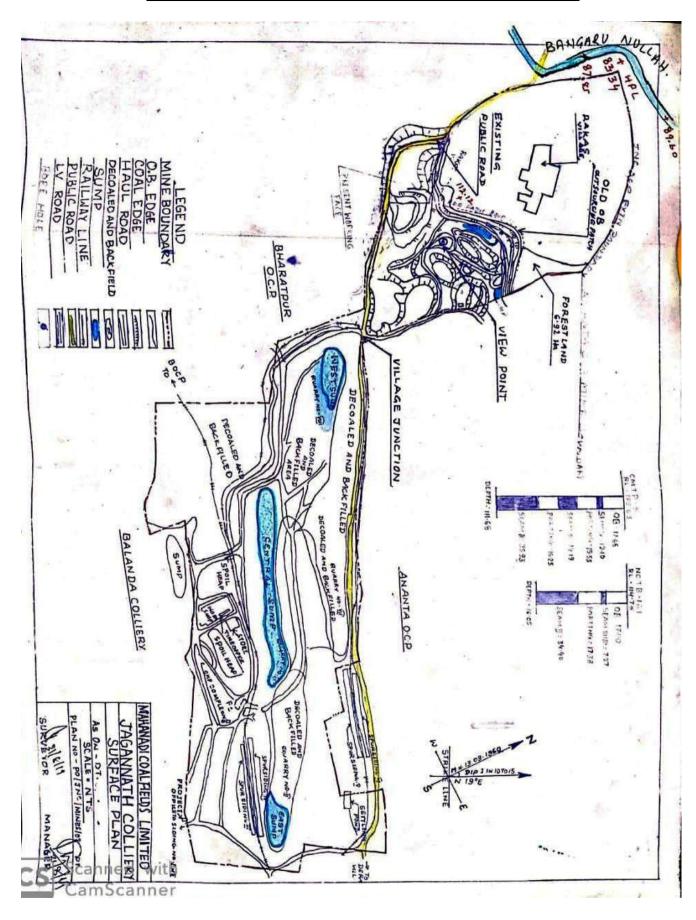
The copy of the order shall be posted in the Mine Office, Time Office and distributed to all concerned. Mock Rehearsal shall be done for this purpose once in every month. A meticulous record of all such occurrences shall be kept in a bound paged book kept for the purpose.

Project Manager

Jagannath Colliery.



# Mine Working Plan of Jagannath Colliery



महानदी कोलफील्ड्स लिमिटेड

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PO: BALANDA, DIST: ANGUL, ODISHA-759116

Tel: 06760-260212, 260458, 260321 email: jagannathcolliery@gmail.com

AN ISO 9001:2008 & 14001:2004 CERTIFIED PROJECT



90.47 Mtrs.

#### WATER DANGER PLAN OF JAGANNATH COLLIERY.

In Jagannath Colliery A Water danger Plan & Section showing details as per CMR-2017, Rule No-65(1)(g), has been prepared & kept ready at Colliery Manager Office.

### Salient features of water danger Plan

1. Source of water bodies existing upto 200 mtrs of Mine Boundary:-

#### Bangaru jhor Nallah

- 1. Floor RL of Bangaru jhor ---
- 2. H.F.L --- 91.34 Mtrs
- 3. TOP R.L of Mine working/Bangaru jhor Nallah --- 112.00 Mtrs (Present)
- 2. The position of dyke, fault and other geological disturbances: No major geological disturbance present within Mine Lease Area.
- 3. Every resorvoir,dam or other structure constructed to with stand a pressure of water or to control inrush of water ,along with reference to its design and other details of constructions:-

Bangaru jhor Mound/embankment (dimensions of 600 m (Length) X 2.00 m (width) X 2.00 m (Height)) made from earthen material with stone pitching towards the nallah side is proposed to be constructed .A proposal for the same has been initiated and proposed work will be completed within three months from the date of issue of work order.

4. Highest Flood Level:- 91.34 Mtrs.

In addition to above an Emergency Response Plan also prepared to deal emergency with respect to inrush of water to Mine.

Project Manager Jagannath Colliery.

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operations.

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PO: BALANDA, DIST: ANGUL, ODISHA 759116

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Tel: 06760-260212, 260458, 260321 email: jagannathcolliery@gmail.com

AN ISO 9001:2008 & 14001:2004 CERTIFIED PROJECT



Ref. No. PO/JNC/Safety/2021/

1431

Date.26 .04.2021.

To

The Area Safety Officer, Jagannath Area.

Dear Sir,

Enclosed please find herewith the Monthly Safety Report in respect of Jagannath Colliery for the month of March-2021. This is for your kind information and necessary action.

Yours faithfully,

Project Officer,
Jagannath Colliery.

# Copy to:-

- 1. The General Manager (S&R), MCL, HQ.
- 2. The Project Manager, JNC.
- 3. The Safety Officer, JNC.
- 4. File.

# NOISE SURVEY. REPORTS MONTH OF 2021 MARCH IN RESPECT JOCP

Location	Name of the instruments.	Unit in Decimal (dbA)	Present status.	Action taken to reduce noise level
Drill- J-5	CEM Sound Level Meter (Digital)	85 dbA	85.2	Ear Plug/Muff Provided
Drill- IR-783	-do-	85 dbA	85.1	Ear Plug/Muff Provided
Drill-784	-do-	85 dbA	85.1	-do-
Dozer- 651	-do-	85 dbA	85.4	Ear Plug/Muff Provided
Exc 534	-do-	85 dbA	85.2	-do-
Tata 1200(new)	-do-	85 dbA	84.9	by
Tata- 1200(D) Anata	-do-	85 dbA	85.2	-do-
FC Ckt- IV	-do-	85 dbA	85.2	Ear Plug/Muff Provided
FC Ckt-III	-do-	85 dbA	85.3	Ear Plug/Muff Provided
FC Ckt- I	-do-	85 dbA	85.2	-chdo-
BE 1000 D Font	-do-	85 dbA	85.3	Ear Plug/Muff Provided
Dumper-516	-do-	85 dbA	85.3	-do- dat-manuar
Dumper-575	-do-	85 dbA	85.4	Ear Plug/Muff Provided
Dumper-574	-do-	85 dbA	85.2	-do- LV/-interest

# NOISE SURVEY. Reports MONTH of 2021 FEBRUARY

Location	Name of the instruments.	Unit in Decimal (dbA)	Present status.	Action taken to reduce noise level
Drill- J-5	CEM Sound Level Meter (Digital)	85 dbA	85.4	Ear Plug/Muff Provided
Drill- IR-783	-do-4	85 dbA	85.3	Ear Plug/Muff Provided
Drill- 784	-do-	85 dbA	85.1	-dodo-
Dozer- 651	-do-	85 dbA	85.2	Ear Plug/Muff Provided
Exc 534	-do-	85 dbA	85.2	-dodo-
Tata 1200(new)	-do-	85 dbA	84.6	Ta. to
Tata- 1200(D) Anata	-do-	85 dbA	85.2	-do-Le Lengtes
FC Ckt- IV	-do-	85 dbA	85.4	Ear Plug/Muff Provided
FC Ckt-III	-do-	85 dbA	85.2	Ear Plug/Muff Provided
FC Ckt- I	-do-	85 dbA	85.1	-do-
BE 1000 D Font	-do-	85 dbA	85.2	Ear Plug/Muff Provided
Dumper-516	-do-	85 dbA	85.2	-do-
Dumper-575	-do-	85 dbA	85.6	Ear Plug/Muff Provided
Dumper-574	-do-	85 dbA	85.4	-do-

गहानदी कोलफील्ड्स लिगिटेड

ମହାନ୍ତୀ କୋଲ ଫିଲଡ଼ସ ଲିମିଟେଡ

PO: BALANDA, DIST: ANGUL, ODISHA 759116 Tel: 06760-260212, 260458, 260321 email: jagannathcolliery@gmail.com

AN ISO 9001:2008 & 14001:2004 CERTIFIED PROJECT



Ref. No. PO/JNC/Safety/2021/ 1045

Date 22 .03.2021.

To

The Area Safety Officer, Jagannath Area.

Dear Sir,

Enclosed please find herewith the Monthly Safety Report in respect of Jagannath Colliery for the month of February-2021. This is for your kind information and necessary action.

Yours faithfully,

Project Officer,

Jagannath Colliery.

# Copy to:-

- 1. The General Manager (S&R), MCL, HQ.
- 2. The Project Manager, JNC.
- 3. The Safety Officer, JNC.
- 4. File.

गहानदी कोलफील्ड्स लिमिटेड

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PO: BALANDA, DIST: ANGUL, ODISHA 759116 Tel: 06760-260212, 260458, 260321

email: jagannathcolliery@gmail.com AN ISO 9001:2008 & 14001:2004 CERTIFIED PROJECT



Ref. No. PO/JNC/Safety/2021/

582

Date. / 8 .02.2021.

To

The Area Safety Officer, Jagannath Area.

Dear Sir,

Enclosed please find herewith the Monthly Safety Report in respect of Jagannath Colliery for the month of **January-2021**. This is for your kind information and necessary action.

100

Yours faithfully,

Project Officer,

Jagannath Colliery.

# Copy to:-

- 1. The General Manager (S&R), MCL, HQ.
- 2. The Project Manager, JNC.
- 3. The Safety Officer, JNC.
- 4. File.

# NOISE SURVEY

Location	Name of the instruments.	Unit in Decimal (dbA)	Present status.	Action taken to reduce noise level
Drill- J-5	CEM Sound Level Meter (Digital)	85 dbA	85.1	Ear Plug/Muff Provided
Drill- IR-783	-do-	85 dbA	85.1	Ear Plug/Muff Provided
Drill- 784	-do-	85 dbA	85.4	-do-
Dozer- 651	-do-	85 dbA	85.6	Ear Plug/Muff Provided
Exc 534	-do-	85 dbA	85.4	-do-
Tata 1200(new)	-do-	85 dbA	84.9	
Tata- 1200(D) Anata	-do-	85 dbA	85.1	-do-
FC Ckt- IV	-do-	85 dbA	85.6	Ear Plug/Muff Provided
FC Ckt- III	-do-	85 dbA	85.4	Ear Plug/Muff Provided
FC Ckt-I	-do-	85 dbA	85.3	-do-
BE 1000 D Font	-do-	85 dbA	85.6	Ear Plug/Muff Provided
Dumper-516	-do-	85 dbA	85.7	-do-
Dumper-575	-do-	85 dbA	85.1	Ear Plug/Muff Provided
Dumper-574	-do-	85 dbA	85.6	-do-

### LIGHTING.

Location	Value in UnitLux.	Value as per Statute	Action taken if deficiency found	Present status
Exc-534 Face	41 V	25 V		A COLUMN TO STATE OF THE STATE
· 有一种人的	23 H	15 H		
TATA- 1200D	22V	25 V	1	
Ananta	16H	15 H	La Reni de la	
TATA- 1200D	18.5 V	25 V		
NEW	14.2H	15 H	Eliteratura in	a contract of the
BE-1000 (D) (Front )	21.3 V	25 H		
	13.1H	15 V		
Haul Road	8.1H	10 H	Dumper	
		614.	Tipper	
Coal Face	27.1V	25 V		
	14.2 H	15 H		
CHP Sub-Stn.	52.9V	25 V		
	100.9 H	15 H		
CHP W/S	NA	50 V		
	NA	100 H		
CHP Stock	16.4 V	15 V		
	15.9 H	15 H		
Rest Shelter	34.3 H	30 H		
Village Chowk	29.8H	10 H		

REFNO:- PETETHOPSAGAY/VULLY/104/00/2001/200

DATE: 3/25-21

# ILLUMINATION SURVEY ON DTD: 29-05-21 & 31-05-21 OF JAGANNATH COLLIERY, JAGANNATH AREA/MCL.

#### INSPECTION TEAM

-Sri A.K. Das, Sr. Mgr.(Min) (1)SAFETY OFFICER:---(2) ELECTRICAL SAFETY OFFICER:----Sri Ajaya Ku. Sahoo, Mgr.(E&M)

(3)ELECTRICAL SUPERVISOR (1) ——Sri SrinibashKhuntia, F.M.(E&M)
(4)ELECTRICAL SUPERVISOR(2):——Sri P. C. Dalei, A. F.M. (E&M)

(S)SR. OVERMAN————Sri Rajesh Kumar Yadav, Sr. O/M, Safety Deptt.

L	LOCATION	STAND	ARD PER	ACTUAL				TAKEN	PROCUREMENT ACTION (If Any)	
NO.		DGMS	AR	CURRE		PREVIO				
	4		1000	READIN	H		Н			
		V	Н	V	15.1	-	15.3			and the second
	EXCV-459	25	15	25.3		2017	15.6			
1	1	25	15	25.6	15.3	25.3	15.7			
	EXCV-534  EXCV-1200-D-ANANTA	25	15	24.9	15.4	24.7	15.2			
	EXCV-1200-D-FRONT	25	15	25.3	14.9	23.8	14.9	Barrier Barrier		
		25	15	24.1	14.7	23.0	50.8			
	EXCV-1000-D-BACK  OPERATORS CABIN-EXCV-459		50		50.2		50.1	Cast Division		III. C
	OPERATORS CABIN-EXCV-534	11920	50	1	51.2		50.2			
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50		50.5		48.8			
	OPERATORS CABIN-EXCV-1000-D-FRONT		50		49.4		50.1			
	OPERATORS CABIN-EXCV-1000-D-BACK	DOME	50		48.8		24.2	A SELVING		
	AREA OF DRILLING RIG WORKS	25			23.7					
2	AREA OF DRILLING RIG WORKS	4	15		NA		NA 15.4	1/6		
3	AT DRILL HOLES	15	15	15.3	15.1	15.2	15.4			100
4	OB DUMP	25	15	23.7	15.2	24.8	15.4	0.00	117348	Mes 13/
5	COAL FACE		10	1	8.7	1/41	8.3			
6	PERMANENT PATHS FOR USE OF PERSONS	L Com	10		8.2		8.6	100		
7	PUMPING STATION-CENTRAL SUMP		40	FIRE	27.8	1	29.8			
8	PUMPING STATION-CENTRAL SOMP  PUMPING STATION- WEST SUMP		40		29.8		30.9			
	PUMPING STATION- WEST SOMP  PUMPING STATION- COAL FACE SUMP	24	40		31.2	1826	33.5			1 12 -
	PUMPING STATION COAL FACE SOME	M. Later	30		32,7		31.3		THE REPORT OF THE PERSON NAMED IN COLUMN	
9	REST SHELTER (MINES TIME OFFICE) FIRST-AID-STATION (MINES)		30		30.9		100000000000000000000000000000000000000			
10	FIRST-AID-STATION (MINES)	50	100	51.4	102.5	52.2	101.4			
11	SUB-STATION (MAIN)	50	100	39.1	91.2	38.8	90.6			
	SUB-STATION (MINES)	N. Maga	50		NA		NA 99.5			
12-	CHP-FIRST-AID STATION	50	100	51.6		51.1	-			The same
CHP	CHP-SUB-STATION	50	100	NA	NA	NA	NA 14.1		ALL YOR TO COMPA	A DESCRIPTION OF THE PARTY OF T
28	CHP-WORK SHOP		30	17 7	13.8		15.9		THE RESERVE	
3	CHP-REST SHELTOR	15	15	15.7		15.4	30.6		Thursday, and the	
	CHP-COAL STOCK YARD	The last	50		29.8	44.0	13.7			
	CHP-HAND PICKING POINTS	25	15	15.2		14.8	28.8			
	CHP-MANUAL WORKING ZONE	nine	40	3000	30.1	100	29.6		Min I was a second	
1.00	CHP-DRIVE HEAD OF CONVEYORS		40		28.8		15.6			
	CHP-PLACE OF CRUSHING		20		14.9	-	15.5	E WENT OF		
	CHP-ALONG CONVEYOR-B2		20	m in the	15.2					
	CHP-ALONG CONVEYOR-B4	S HE	20		14.7		15.4			
Marie Land	CHP-ALONG CONVEYOR-D2		20		15.3		29.6			
1 1	CHP-ALONG CONVEYOR-D4	11/1/19	40		28.6				entitle for the state of	
	CHP-TAIL END OF CONVEYOR-B5	Maria a	40		28.8		30.7			
	CHP-TAIL END OF CONVEYOR-DS	G) (100	40		30.2		31.8			
100	CHP-TRANSFER POINT-B3		40		30.3		30.9		THE REAL PROPERTY.	
122	CHP-TRANSFER POINT-D3		50		52.6	-	53.6			
13-	FC-FIRST-AID STATION	50	100	51.5				,		
FC	FC-SUB-STATION	50	100	) NA	NA	NA	NA 22.1			
	FC-WORK SHOP		30		29.5		32.1			
	FC-REST SHELTOR	15	15	15.		15.4	-			
	FC-COAL STOCK YARD		50		22.8		23.2			
	FC-HAND PICKING POINTS		50		23.9					
	FC-OPERATORS CABIN-1	117	50		24.1		24.6			
	FC-OPERATORS CABIN-2		50		32.7		34.1			
	FC-OPERATORS CABIN-3		50		34.8		35.3			
	FC-OPERATORS CABIN-4		40		32.9		33.9			
1	FC DRIVE HEAD OF CONVEYOR-1	-	40		30.1		29.9			
	EC-DRIVE HEAD OF CONVEYOR-2		40		30.4		30.1			
	EC-DRIVE HEAD OF CONVEYOR-3	-	40		29.2		28.2			
1	FC-DRIVE HEAD OF CONVEYOR-4		40		28.4		28.5			

	FC-PLACE OF CRUSHING-2		40	10//	31.8		T		
	FC-PLACE OF CRUSHING-3		40	+		-	32.6		
	FC-PLACE OF CRUSHING-4		40		29.7		30.1		
	FC-ALONG CONVEYOR-1		20	-	30.1		30.3		
	FC-ALONG CONVEYOR-2	-	0.70		15.2		14.6		
	FC-ALONG CONVEYOR-3		20		14.9		15.2		
	FC-ALONG CONVEYOR-4		20		15.2		14.7		
	FC-TAIL END OF CONVEYOR-1		20		14.5		14.9		
	FC-TAIL END OF CONVEYOR-2		40		24.6		25.1		
	FC-TAIL END OF CONVEYOR-3		40		24.8		24.2		
			40		24.1		24.3		
	FC-TAIL END OF CONVEYOR-4		40		25.1		24.8		
	FC-CHUTE OPENING-1		1000	23.2	31.3	22.3	32.8		
	FC-CHUTE OPENING-2			22.6	32.7	21.8	33.6		
	FC-CHUTE OPENING-3			25.1	34.6				
	FC-CHUTE OPENING-4		-		-	24.9	35.1		
14	WORK SHOP-50 Te DUMPER		-	25.4	35.2	25.4	35.8		
	WORK SHOP-DOZER	50	100	51.2	90.1	53.2	92.1		
	WORK SHOP-AUX	50	100	48.9	90.5	51.3	92.6		
	PARKING YARD - DUMPER	50	100	42.6	83.2	43.3	85.1		
	PARKING YARD - DRILL		50		51.6		53.8		
	THE DRILL		50		52.1		53.1		

Electrical Supervisor Jagannath Colliery.

Electrical Supervisor

Jagannath Colliery

SR. OVERMAN Jagannath Colliery

Flectrical Safety Officer

Electrical Safety Officer Jagannath Colliery

Safety officer of Jagannath Colliery

Project Manager.

Jagannath Colliery.

#### Distribution:-

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

Ser balthofzapahaljarranjanpostidi Dr 120251

REF NO:-

DATE:-

# ILLUMINATION SURVEY ON DTD: 14-05-21 & 15-05-21 OF JAGANNATH COLLIERY, JAGANNATH AREA/MCL.

**INSPECTION TEAM** 

(1)SAFETY OFFICER:-----Sri A.K. Das, Sr. Mgr.(Min)

(2) ELECTRICAL SAFETY OFFICER:----Sri Ajaya Ku. Sahoo, Mgr.(E&M)

(3)ELECTRICAL SUPERVISOR (1) -----Sri SrinibashKhuntia, F.M.(E&M)

(4)ELECTRICAL SUPERVISOR(2):-----Sri P. C. Dalei, A. F.M. (E&M)

(5)SR. OVERMAN———————————————————————Sri Rajesh Kumar Yadav, Sr. O/M, Safety Deptt.

SL NO	LOCATION	STAN AS DGM	DARD PER	ACTU	AL			ACTION TAKEN	PROCUREMENT ACTION (If Any)	REMARKS
		CIRCU	JLAR	CURR	ING	PREVI	ING			
		V	Н	V	Н	V	Н		-	
1	EXCV-459	25	15	25.1	15.3	25.5	15.2			
	EXCV-534	25	15	25.4	15.6	26.7	15.8			15010
	EXCV-1200-D-ANANTA	25	15	25.3	15.7	25.2	15.4			-
	EXCV-1000-D-FRONT	25	15	24.7	15.2	25.1	15.3	175101		-
	EXCV-1000-D-BACK	25	15	23.8	14.9	22.3	14.2			
	OPERATORS CABIN-EXCV-459		50		50.8	100	51.2			
	OPERATORS CABIN-EXCV-534		50		50.1		50.8			
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50		50.2		50.3			
	OPERATORS CABIN-EXCV-1000-D-FRONT		50		48.8		49.8			
	OPERATORS CABIN-EXCV-1000-D-BACK		50		50.1		50.4			
2	AREA OF DRILLING RIG WORKS	25			24.2	23.7		The state of		100
3	AT DRILL HOLES		15	0.70	NA	NA				
4	OB DUMP	15	15	15.2	15.4	15.3	15.7			
5	COAL FACE	25	15	24.8	15.4	25.4	15.3			
6	HAUL ROADS		10		8.3		8.1			
7	PERMANENT PATHS FOR USE OF PERSONS		10		8.6	1	8.2		111	
8	PUMPING STATION-CENTRAL SUMP		40		29.8	logo III	30.4	CLUMNIS.	/ / /	
	PUMPING STATION- WEST SUMP	7 1000	40	115	30.9		32.3			
	PUMPING STATION- COAL FACE SUMP		40		33.5	NIO -	34.1			
9	REST SHELTER (MINES TIME OFFICE)		30		31.3		30.9			22
10	FIRST-AID-STATION (MINES)		30	THE PERSON NAMED IN	31.8		30.5			
11	SUB-STATION (MAIN)	50	100	52.2	101.4	51.4	102.5	CETTAL DIST		
**	SUB-STATION (MINES)	50	100	38.8	90.6	39.6	91.2	The second		
12-	CHP-FIRST-AID STATION		50	77	NA	N TE	NA	DOM: NO.		
CHP	CHP-SUB-STATION	50	100	51.1	99.5	50.5	100.6			
	CHP-WORK SHOP	50	100	NA	NA	NA	NA		CATALOG STATE	
	CHP-REST SHELTOR		30		14.1		14.8			
	CHP-COAL STOCK YARD	15	15	15.4	15.9	15.9	16.1			THE PARTY
	CHP-HAND PICKING POINTS		50		30.6	10000	31.4			15 0 18 5
	CHP-MANUAL WORKING ZONE	25	15	14.8	13.7	15.3	13.2			
	CHP-DRIVE HEAD OF CONVEYORS	-	40		28.8		29.5	All - Miles		1000
	CHP-PLACE OF CRUSHING		40		29.6		30.1	MATLE AND DESCRIPTION		11. / 11.
	CHP-ALONG CONVEYOR-B2		20	Helian	15.6		16.2			
			20		15.5	Q.77	15.9	Sales and a		UA THE LAND
	CHP-ALONG CONVEYOR-B4	1	20		15.4	To be	15.2	Shirt .		
	CHP-ALONG CONVEYOR-D2	-	20		15.1		15.6			STATE
	CHP-ALONG CONVEYOR-D4	-	40		29.6		30.4			Deline Par
	CHP-TAIL END OF CONVEYOR-B5	-					31.2			
	CHP-TAIL END OF CONVEYOR-D5		40		30.7		32.4			District Control
	CHP-TRANSFER POINT-B3	-	40		31.8		-			
	CHP-TRANSFER POINT-D3		40		30.9		31.6			0.1
3-	FC-FIRST-AID STATION		50		53.6	F2.F	54.2			Carrie and
C	FC-SUB-STATION	50	100	53.2	102.5	52.5	101.4			
	FC-WORK SHOP	50	100	NA	NA	NA	NA			
	FC-REST SHELTOR	1	30				28.3			
	FC-COAL STOCK YARD	15	15	15.4	15.9	15.9	15.7			
-	FC-HAND PICKING POINTS		50	Part of	23.2		22.8			
	FC-OPERATORS CABIN-1		50		24.8		25.6			
	FC-OPERATORS CABIN-2		50		24.6	O'CO	25.4			
	FC-OPERATORS CABIN-3	Mark 1	50		34.1		33.5			
	FC-OPERATORS CABIN-4	N. S.	50		35.3		34.1			
	FC-DRIVE HEAD OF CONVEYOR-1		40	0.11.0	33.9		34.6			
	FC-DRIVE HEAD OF CONVEYOR-2		40	To the last	29.9		30.1			
			40		30.1	Alle o	30.3			
1	FC-DRIVE HEAD OF CONVEYOR-3		40		28.2		27.9	100000000000000000000000000000000000000		
1	FC-DRIVE HEAD OF CONVEYOR-4	-	40	-	28.5		28.1			Marie Co

_	The bishor of childrens 3		40		32.6		33.1		
	PC-PLACE OF CRUSHING-2		40		30.1		29.5		
	FC-PLACE OF CRUSHING-3		40		30.3		30.4		
	FC-PLACE OF CRUSHING-4		20		14.5		14.9		
	FC-ALONG CONVEYOR-1		20		15.2		14.7		-
	FC-ALONG CONVEYOR-2	-	20		14.7		13.7		_
	FC-ALONG CONVEYOR-3		20		14.9		14.6		-
	FC-ALONG CONVEYOR-4		40		25.1		24.2		
	FC-TAIL END OF CONVEYOR-1	-	40		24.2		23.8		
_	FC-TAIL END OF CONVEYOR-2		40		24.3		24.5		
	FC-TAIL END OF CONVEYOR-3		40		24.8		24.1		
	FC-TAIL END OF CONVEYOR-4			22.3	32.8	23.4	33.8		-
	FC-CHUTE OPENING-1		-	21.8	33.6	22.5	34.5		-
	FC-CHUTE OPENING-2		-	24.9	35.1	25.1	34.9		-
	FC-CHUTE OPENING-3		-	-	35.8	25.7	35.4		-
	FC-CHUTE OPENING-4		-	25.4		52.3	91.4		1
1.6	WORK SHOP 50 Te DUMPER	50	100	53.2	92.1	50.5	93.1		-
	WORK SHOP-DOZER	50	100	51.3	92.6	42.1	84.7		-
	WORK SHOP-AUX	50	100	43.3	85.1	75.7	53.1		-
	PARKING YARD - DUMPER		50	-	53.8	-	52.8		
	PARKING YARD - DRILL		50		53.1	-	200		

**Electrical Supervisor** Jagannath Colliery.

**Electrical Supervisor** Jagannath Colliery

SR. OVERMAN Jagannath Colliery

**Electrical Safety Officer** Jagannath Colliery

Jagannath Colliery

Project Manager. Jagannath Colliery.

#### Distribution:

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

DATE: 30-04-29

# ILLUMINATION SURVEY ON DTD: 29-04-21 & 30-04-21 OF JAGANNATH COLLIERY, JAGANNATH AREA/MCL.

#### INSPECTION TEAM

(5)SR. OVERMAN-Sri Rajesh Kumar Yadav, Sr. O/M, Safety Deptt.

SL NO	LOCATION	STAN AS DGMS	PER	ACTUA	AL			ACTION TAKEN	PROCUREMENT ACTION (If Any)	REMARKS
		CIRCL		CURRE	720713	PREVIO READI	NG			
		V	Н	V	H	V	Н			
1	EXCV-459	25	15	25.5	15.2	25.3	15.8			
	EXCV-534	25	15	26.7	15.8	29.5	16.4	17.00		
	EXCV-1200-D-ANANTA	25	15	25.2	15.4	25.1	15.3			
	EXCV-1000-D-FRONT	25	15	25.1	15.3	24.4	15.1			
	EXCV-1000-D-BACK	25	15	22.3	14.2	20.4	14.5			
	OPERATORS CABIN-EXCV-459		50	The same	51.2		50.6			
	OPERATORS CABIN-EXCV-534		50		50.8		51.1			
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50		50.3	1	50.8			
	OPERATORS CABIN-EXCV-1000-D-FRONT		50		49.8		50.2			-
	OPERATORS CABIN-EXCV-1000-D-BACK		50		50.4		50.7			-
2	AREA OF DRILLING RIG WORKS	25	8	23.7		24.3				
3	AT DRILL HOLES		15	NA			NA			
4	OB DUMP	15	15	15.3	15.7	15.9	16.8			
5	COAL FACE	25	15	25.4	15.3	26.1	16.2			
6	HAUL ROADS /	10,000	10	1000	8.1	10-11-91	7.6			
7	PERMANENT PATHS FOR USE OF PERSONS		10		8.2		8.9		1	
8	PUMPING STATION-CENTRAL SUMP		40		30.4		32.8			
	PUMPING STATION- WEST SUMP		40		32.3		34.6			
	PUMPING STATION-COAL FACE SUMP		40		34.1	TALL!	35.1	MATERIAL DESIGNATION OF THE PARTY OF THE PAR		
9	REST SHELTER (MINES TIME OFFICE)		30	Br. B.	30.9		31.2			
10	FIRST-AID-STATION (MINES)	1000	30	1000	30.5	400	32.5			
11	SUB-STATION (MAIN)	50	100	51.4	102.5	55.3	103.9			And the same
	SUB-STATION (MINES)	50	100	39.6	91.2	41.2	90.8	THE PERSON		THE PARTY NAMED IN
12-	CHP-FIRST-AID STATION		50		NA		NA	- NO.		
CHP	CHP-SUB-STATION	50	100	50.5	100.6	50.4	101.2	100	THE STREET PARTY	
	CHP-WORK SHOP	50	100	NA	NA	NA	NA	1300		1100 190
	CHP-REST SHELTOR		30		14.8		15.7	1 2000		W. C. W.S. Ph.
	CHP-COAL STOCK YARD	15	15	15.9	16.1	16.1	16.4			
	CHP-HAND PICKING POINTS		50		31.4	-	30.4			THE COLUMN
	CHP-MANUAL WORKING ZONE	25	15	15.3	13.2	15.9	13.8			
	CHP-DRIVE HEAD OF CONVEYORS		40	-	29.5	10.0	30.4			
	CHP-PLACE OF CRUSHING		40		30.1		30.7			
	CHP-ALONG CONVEYOR-B2		20		16.2		15.8	10000		
	CHP-ALONG CONVEYOR-B4		20		15.9		15.4			
	CHP-ALONG CONVEYOR-D2		20		15.2		15.9			
	CHP-ALONG CONVEYOR-D4		20	1	15.6		16.1			
	CHP-TAIL END OF CONVEYOR-B5		40		30.4	-	32.3	-		
	The second of th	-	1111000							
	CHP-TAIL END OF CONVEYOR-D5	+	40		31.2		33.8			
	CHP-TRANSFER POINT-B3	-	40	-	32.4	-	34.7			
2	CHP-TRANSFER POINT-D3	1	40		31.6		34.8			
3-	FC-FIRST-AID STATION		50	-	54.2		54.7		AND THE PERSON	
С	FC-SUB-STATION	50	100	52.5	101.4	52.1	102.1			
	FC-WORK SHOP	50	100	NA	NA	NA	NA			
	FC-REST SHELTOR		30		28.3		27.3	N I DAN IN VI		
	FC-COAL STOCK YARD	15	15	15.9	15.7	16.4	16.2			
	FC-HAND PICKING POINTS		50		22.8		23.1	No. of Contract of		
	FC-OPERATORS CABIN-1		50		25.6	100	27.6	The same of the sa		-
18	FC-OPERATORS CABIN-2		50		25.4		27.9			
	FC-OPERATORS CABIN-3		50		33.5	-	32.2			
	FC-OPERATORS CABIN-4	1	50		-	-	-			
	FC-DRIVE HEAD OF CONVEYOR-1	-		+	34.1	-	33.8			
	FC-DRIVE HEAD OF CONVEYOR-2		40	-	34.6		33.8			
		1	40		30.1		31.2			
1	FC-DRIVE HEAD OF CONVEYOR-3		40		30.3		29.2			
	FC-DRIVE HEAD OF CONVEYOR-4		40		27.9		28.4			
	FC-PLACE OF CRUSHING-1	A COUNTY	40		28.1		29.1			

	FC-PLACE OF CRUSHING-2		40		33.1		32.4		all the same
	FC-PLACE OF CRUSHING-3		40		29.5		30.8		
	FC-PLACE OF CRUSHING-4		40		30.4		29.2		
	FC-ALONG CONVEYOR-1		20		14.9		15.8		
	FC-ALONG CONVEYOR-2		20		14.7		15.2		
	FC-ALONG CONVEYOR-3		20		13.7		15.1		
	FC-ALONG CONVEYOR-4		20		14.6		15.3		
	FC-TAIL END OF CONVEYOR-1		40		24.2		23.9		
	FC-TAIL END OF CONVEYOR-2		40		23.8		24.1		
	FC-TAIL END OF CONVEYOR-3		40		24.5		25.2		
	FC-TAIL END OF CONVEYOR-4		40		24.1		24.8		
	FC-CHUTE OPENING-1			21.4	33.8	20.2	34.8		
	FC-CHUTE OPENING-2			22.5	34.5	21.5	35.1		
	FC-CHUTE OPENING-3			25.1	34.9	24.8	36.1		
	FC-CHUTE OPENING-4	-		25.7	35.4	25.2	35.8		
14	WORK SHOP-50 Te DUMPER	50	100	52.3	91.4	53.4	92.3		
• •	WORK SHOP-DOZER	50	100	50.5	93.1	51.1	92.7		
	WORK SHOP-AUX	50	100	42.1	84.7	45.6	87.3		
	PARKING YARD - DUMPER		50		53.1		54.1		
	PARKING YARD - DRILL		50		52.8		53.9		

Jagannath Colliery.

**Electrical Supervisor** Jagannath Colliery SR. OVERMAN Jagannath Colliery

**Electrical Safety Officer** Jagannath Colliery

Jagannath Colliery

Jagannath Colliery.

#### Distribution:-

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

REFNO: POTENCE Sabety/illarialia/sas/142 DATE: 16-c4-24

# ILLUMINATION SURVEY ON DTD: 14-04-21 & 15-04-21 OF JAGANNATH COLLIERY, JAGANNATH AREA/MCL.

#### **INSPECTION TEAM**

(1)SAFETY OFFICER:--Sri A.K. Das, Sr. Mgr.(Min)

(2) ELECTRICAL SAFETY OFFICER:----Sri Ajaya Ku. Sahoo, Mgr.(E&M)

(3)ELECTRICAL SUPERVISOR (1) -----Sri Srinibash Khuntla, F.M.(E&M)

(4)ELECTRICAL SUPERVISOR(2):-----Sri P. C. Dalei, A. F.M. (E&M)

(5)SR. OVERMAN-----Sri Rajesh Kumar Yadav, Sr. O/M, Safety Deptt.

0	LOCATION	AS DGMS	ARD PER	ACTUAL				ACTION	PROCUREMENT ACTION (If Any)	REMARKS
		CIRCU	LAR	CURRENT READING		PREVIO	122		Action (in rest)	
		V	н	V	н	٧	Н			
	EXCV-459	25	15	25.1	15.4	25.3	15.8			
	EXCV-534	25	15	27.2	15.8	29.5	16.4			
	EXCV-1200-D-ANANTA	25	15	25.4	15.6	25.1	15.3			
	EXCV-1000-D-FRONT	25	15	25.2	15.3	24.4	15.1			
	EXCV-1000-D-BACK	25	15	22.5	15.3	20.4	14.5			
	OPERATORS CABIN-EXCV-459		50		51.2		50.6			
	OPERATORS CABIN-EXCV-534		50		50.8	Tel .	51.1			
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50		50.3		50.8			
	OPERATORS CABIN-EXCV-1000-D-FRONT		50		50.9		50.2			
	OPERATORS CABIN-EXCV-1000-D-BACK		50		50.1		50.7			
2	AREA OF DRILLING RIG WORKS	25		23.8		24.3				
3	AT DRILL HOLES		15		NA		NA			
4	OB DUMP	15	15	15.4	15.9	15.9	16.8			
5	COAL FACE	25	15	26.3	15.8	26.1	16.2			THE PERSON
6	HAUL ROADS		10		7.8		7.6	Trans.		
7	PERMANENT PATHS FOR USE OF PERSONS		10	110	9.1		8.9			
8	PUMPING STATION-CENTRAL SUMP		40	90	32.4		32.8			
	PUMPING STATION- WEST SUMP		40		33.8		34.6			The same
	PUMPING STATION- COAL FACE SUMP		40		35.6		35.1			
9	REST SHELTER (MINES TIME OFFICE)		30		32.2		31.2			
10	FIRST-AID-STATION (MINES)		30		31.9		32.5			
11	SUB-STATION (MAIN)	50	100	54.9	102.8	55.3	103.9			
	SUB-STATION (MINES)	50	100	42.1	91.2	41.2	90.8			
12-	CHP-FIRST-AID STATION		50		NA		NA			,
CHP	CHP-SUB-STATION	50	100	51.2	102.1	50.4	101.2			
	CHP-WORK SHOP	50	100	NA	NA	NA	NA			Alexander Comment
	CHP-REST SHELTOR		30		15.9		15.7			
	CHP-COAL STOCK YARD	15	15	16.5	16.8	16.1	16.4		YAN	
	CHP-HAND PICKING POINTS		50		29.9		30.4			C. C.
	CHP-MANUAL WORKING ZONE	25	15	16.7	13.4	15.9	13.8			4
	CHP-DRIVE HEAD OF CONVEYORS		40		31.2		30.4			
	CHP-PLACE OF CRUSHING		40		30.3		30.7			
	CHP-ALONG CONVEYOR-B2	-	20		16.1		15.8			
	CHP-ALONG CONVEYOR-B4		20		15.2		15.4			
	CHP-ALONG CONVEYOR-D2		20		15.4		15.9			
	CHP-ALONG CONVEYOR-D4		20		15.8		16.1		N Company	
	CHP-TAIL END OF CONVEYOR-B5		40		31.7		32.3			
	CHP-TAIL END OF CONVEYOR-D5		40		32.9		33.8			
	CHP-TRANSFER POINT-B3		40		33.8		34.7			
	CHP-TRANSFER POINT-D3		40	-	34.2		34.8			1000000
13-	FC-FIRST-AID STATION		50	_	55.2		54.7			
FC	FC-SUB-STATION	50	_	-		52.1	102.	1		
	FC-WORK SHOP	50	_		NA	NA	NA			
	FC-REST SHELTOR	1	30	_	26.8		27.3			
	FC-COAL STOCK YARD	15	_			16.4	4 16.2			
	FC-HAND PICKING POINTS		50	_	22.9	_	23.1			
	FC-OPERATORS CABIN-1		50	_	25.8	_	27.6			
	FC-OPERATORS CABIN-2	30	50	_	26.2	_	27.9			
	FC-OPERATORS CABIN-3		50		28.4		32.2			
	FC-OPERATORS CABIN-4		50	)	31.5		33.8	3		
	FC-DRIVE HEAD OF CONVEYOR-1		40	)	32.3		33.8	3		
	FC-DRIVE HEAD OF CONVEYOR-2		40	)	32.1		31.2	-		
	FC-DRIVE HEAD OF CONVEYOR-3		40	)	30.3		29.3			
	FC-DRIVE HEAD OF CONVEYOR-4		40		29.4		28.4	_		
	FC-PLACE OF CRUSHING-1		40	1	28.5		29.			

	FC-PLACE OF CRUSHING-2		40	19587	31.6	19.00	17.4		7.37.53	4 /
	FC-PLACE OF CRUSHING-3		40		31.2		30.8	9		
	FC-PLACE OF CRUSHING-4	THE RESERVE	46		30.5		29.2			
	FC-ALONG CONVEYOR-1		20		16.1		15.8			-
	FC-ALONG CONVEYOR-2		20		16.3		15.2			-
	FC-ALONG CONVEYOR 3		20		15.6		15.1	5 4		-
	FC-ALONG CONVEYOR-4		20		15.8		15.3			_
	FC-TAIL END OF CONVEYOR-1		40		24.1		23.9		La	-
	FC-TAIL END OF CONVEYOR-2		40		23.9		24.1			-
	FC-TAIL END OF CONVEYOR-3		40		25.3		25.2			-
	FC-TAIL END OF CONVEYOR-4		40		25.2		24.8			-
	FC-CHUTE OPENING-1			22.3	35.1	20.7	34.8			_
	FC-CHUTE OPENING-2			22.5	35.6	21.5	35.1			_
	FC-CHUTE OPENING-3			25.2	35.8	24.8	36.1			
	FC-CHUTE OPENING-4			26.3	36.2	25.2	35.8			_
14	WORK SHOP-50 Te DUMPER	50	100	54.1	92.2	53.4	92.3	100		
	WORK SHOP-DOZER	50	100	50.8	91.5	51.1	92.7			-
	WORK SHOP-AUX	50	100	45.1	86.3	45.6	87.3			10
	PARKING YARD - DUMPER		50		53.8		54.1			
	PARKING YARD - DRILL		50		52.9		53.9		-	plant

Electrical Supervisor Jagannath Colliery.

Electrical Supervisor Jagannath Colliery SR. OVERMAN Jagannath Colliery

Electrical Safety Officer Jagannath Colliery Safety Officer

Jagannath Colliery

Project Manager.
Jagannath Colliery.

#### Distribution:-

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

REF NO: Patthe / Ango / NEW HIMMON/2001/135

DATE:-31-03-21

# ILLUMINATION SURVEY ON DTD: 30-03-21 & 31-03-21 OF JAGANNATH COLLIERY, JAGANNATH AREA/MCL.

INSPECTION TEAM

(1)SAFETY OFFICER:—Sri A.K. Das, Sr. Mgr. (Min)
(2) ELECTRICAL SAFETY OFFICER:—Sri Ajaya Ku. Sahoo, Mgr. (E&M)
(3)ELECTRICAL SUPERVISOR (1) —Sri Srinibash Khuntia, F.M. (E&M)
(4)ELECTRICAL SUPERVISOR(2):—Sri P. C. Dalei, A. F.M. (E&M)

(5)SR. OVERMAN——————————————————————Sri Rajesh Kumar Yadav, Sr. O/M, Safety Deptt.

SL NO	LOCATION	AS DGMS	PER	ACTUA	L			ACTION TAKEN	PROCUREMENT ACTION (If Any)	REMARKS
		CIRCU		CURRE	0.00	PREVIO	65355			
	The state of the s	V	Н	V	н	٧	Н			
1	EXCV-459	25	15	25.3	15.8	26.4	16.9	Maria Maria	-24	
	EXCV-534	25	15	29.5	16.4	33.9	17.8			
	EXCV-1200-D-ANANTA	25	15	25.1	15.3	24.1	15.8			
	EXCV-1000-D-FRONT	25	15	24.4	15.1	23.2	14.1	TOTAL TOTAL		
	EXCV-1000-D-BACK	25	15	20.4	14.5	18.1	13.4			
	OPERATORS CABIN-EXCV-459	-	50	20.4	50.6		51.6			ALC: SERVICE SERVICE
	OPERATORS CABIN-EXCV-534		50		51.1		51.2			
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50		50.8		50.3			
	OPERATORS CABIN-EXCV-1000-D-FRONT		50		50.2		50.5			
	OPERATORS CABIN-EXCV-1000-D-BACK		50		50.7		49.6			
2	AREA OF DRILLING RIG WORKS	25		0.5	24.3		23.1			
3	AT DRILL HOLES	-	15		- NA		NA		Mile of the	
4	OB DUMP	15	15	15.9	16.8	15.3	17.4	1000		
5	COAL FACE	25	15	26.1	16.2	25.6	15.9			
6	HAUL ROADS	123	10	20.1	7.6	23.0	7.9	A THE PARTY OF		
7	PERMANENT PATHS FOR USE OF PERSONS		10	1	8.9		8.5			
8	PUMPING STATION-CENTRAL SUMP		40		32.8		33.9			The same of the sa
	PUMPING STATION- WEST SUMP		40		34.6		35.7			
	PUMPING STATION- COAL FACE SUMP		40	1	35.1		34.8			
9	REST SHELTER (MINES TIME OFFICE)	-	30	100	31.2		30.7	Control of the Control		
10	FIRST-AID-STATION (MINES)	-	30	-	32.5	-	31.2			
					-	= 4.0				-
11	SUB-STATION (MAIN)	50	100	55.3	103.9	54.8	103.2			-
	SUB-STATION (MINES)	50	100	41.2	90.8	40.5	90.1			-
12-	CHP-FIRST-AID STATION	-	50	-	NA		NA		5 / Tim / Time	
CHP	CHP-SUB-STATION	50	100	50.4	101.2	51.6	101.5			
	CHP-WORK SHOP	50	100	NA	NA	NA	NA			
	CHP-REST SHELTOR	SI .	30		15.7		15.1			
	CHP-COAL STOCK YARD	15	15	16.1	16.4	15.7	15.9			
	CHP-HAND PICKING POINTS	-	50		30.4		33.7			
	CHP-MANUAL WORKING ZONE	25	15	15.9	13.8	16.1	14.2			
	CHP-DRIVE HEAD OF CONVEYORS		40		30.4		32.9			
	CHP-PLACE OF CRUSHING		40	-	30.7		33.8			
	CHP-ALONG CONVEYOR-B2		20		15.8		16.1		A THE WILLIAM	
	CHP-ALONG CONVEYOR-B4		20		15.4		16.5			Marian -
	CHP-ALONG CONVEYOR-D2		20		15.9		16.9			
	CHP-ALONG CONVEYOR-D4		20	1 1 1	16.1		16.8		IN real Metable	
	CHP-TAIL END OF CONVEYOR-B5		40		32,3		34.8			
	CHP-TAIL END OF CONVEYOR-DS		40	1	33.8		35.9			
	CHP-TRANSFER POINT-B3		40		34.7		35.5			
	CHP-TRANSFER POINT-D3		40		34.8		35.1			
13-	FC-FIRST-AID STATION		50		54.7		53.4			1
FC	FC-SUB-STATION	50	100	52.1	102.1	51.4	101.8			
100	FC-WORK SHOP	50	100	NA	NA	NA	NA	1		
	FC-REST SHELTOR	30	30	.474	27.3	1111	26.4	-	-	
	FC-COAL STOCK YARD	15	15	16.4	16.2	15.4	15.9			-
	FC-HAND PICKING POINTS	15	50	10.4	23.1	15.4		-		
		-	-	-		-	24.9			
	FC-OPERATORS CABIN-1		50		27.6		27.8			
	FC-OPERATORS CABIN-2	-	50	-	27.9	-	28.4		and the second	
	FC-OPERATORS CABIN-3	-	50		32.2		31.4			
	FC-OPERATORS CABIN-4		50		33.8		36.8			
	FC-DRIVE HEAD OF CONVEYOR-1	1	40		33.8		35.2			
	FC-DRIVE HEAD OF CONVEYOR-2		40		31.2		30.1			
	FC-DRIVE HEAD OF CONVEYOR-3		40		29.2	1000	27.9			
	FC-DRIVE HEAD OF CONVEYOR-4		40		28.4		27.6			
	FC-PLACE OF CRUSHING-1		40		29.1		28.5			
	FC-PLACE OF CRUSHING-2		40	I al	32.4		30.8			
	FC-PLACE OF CRUSHING-3		40		30.8		30.7	MILE STATE		

	FC-PLACE OF CRUSHING-4		1 40	11	Tana			1 Carrie	
	FC-ALONG CONVEYOR-1		-		29.2		28.7	I to the live and	-
	FC-ALONG CONVEYOR-2		20		15.8		16.4		-
	FC-ALONG CONVEYOR-3		20		15.2		15.7		_
	FC-ALONG CONVEYOR-4		20		15.1		15.3		_
	FC-TAIL END OF CONVEYOR-1		20		15.3		15.1		_
	FC-TAIL END OF CONVEYOR-2		40		23.9	100	24.7		_
	FC-TAIL END OF CONVEYOR-3		40		24.1		24.3		_
	FC-TAIL END OF CONVEYOR-4		40		25.2		24.6		_
	EC CHIEF OF CONVEYOR-4		40		24.8		23.9		
	FC-CHUTE OPENING-1			20.2	34.8	19.1			
	FC-CHUTE OPENING-2				100		35.2		
	FC-CHUTE OPENING-3		-	21.5	35.1	22.3	34.8		
	FC-CHUTE OPENING-4			24.8	36.1	25.1	35.9		
4	WORK SHOP-50 Te DUMPER			25.2	35.8	24.9	36.7		-
	WORK SHOP-DOZER	50	100	53.4	92.3	54.1	90.8		
	WORK SHOP-AUX	50	100	51.1	92.7	51.7	93.1		
		50	100	45.6	87.3	44.2	86.1		
	PARKING YARD - DUMPER		50		54.1		53.8		_
_	PARKING YARD - DRILL		50		53.9		53.2		_

Electrical Supervisor
Jagannath Colliery.

Electrical Supervisor

Jagannath Colliery

SR. OVERMAN Jagannath Colliery

Electrical Safety Officer Jagannath Colliery

Safety Officer \
Jagannath Colliery

Project Manager.

Jagannath Colliery.

31/03/2021

#### Distribution:-

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

REF NO: Pot \$ 140 | Sabety | (Leus of the for 1) | 28 DATE: 1503-24 | ILLUMINATION SURVEY ON DTD: 13-03-21 & 15-03-21 OF JAGANNATH COLLIERY, JAGANNATH AREA/MCL.

#### INSPECTION TEAM

(1)SAFETY OFFICER:-----Sri A.K. Das, Sr. Mgr.(Min)

(2) ELECTRICAL SAFETY OFFICER:---Sri Ajaya Ku. Sahoo, Mgr.(E&M)

(3)ELECTRICAL SUPERVISOR (1) ------Sri SrinibashKhuntia, F.M.(E&M)

(4)ELECTRICAL SUPERVISOR(2):-----Sri P. C. Dalei, A. F.M. (E&M)

(5)SR. OVERMAN——————————Sri Rajesh Kumar Yadav, Sr. O/M, Safety Deptt.

NO IL	LOCATION	AS DGMS	ARD PER	ACTUA	L			TAKEN	PROCUREMENT ACTION (If Any)	
		CIRCUI	AR	CURRE		PREVIO				
		V	н	V	Н	٧	Н			
	EXCV-459	25	15	26.4	16.9	28.3	17.5	See SEE		-
	EXCV-534	25	15	33.9	17.8	35.6	20.8		3 34 11 11 11	
		25	15	24.1	15.8	23.7	15.1			
	EXCV-1200-D-ANANTA	25	15	23.2	14.1	23.1	13.7	10 10 100		
	EXCV-1000-D-FRONT		-	-	13.4	17.9	13.2			
	EXCV-1000-D-BACK	25	15	18.1	_	11.3	51.1			THE PARTY
	OPERATORS CABIN-EXCV-459		50	-	51.6	-	50.9			
	OPERATORS CABIN-EXCV-534	1	50		51.2		49.4			
	OPERATORS CABIN-EXCV-1200-D-ANANTA	1500	50	5 8, 700	50.3		50.2	The state of		
	OPERATORS CABIN-EXCV-1000-D-FRONT	7100	50	1	50.5		48.4	100172	TO CHARLES AND	
	OPERATORS CABIN-EXCV-1000-D-BACK		50	100	49.6	22.0	48.4			MATERIAL PROPERTY.
2	AREA OF DRILLING RIG WORKS	25			23.1	22.9	***	No. of the last of		The second
3	AT DRILL HOLES		15	200	NA		NA		4-4-7	2 2 2
4	OB DUMP	15	15	15.3	17.4	16.3	17.1		111111	
5	COAL FACE	25	15	25.6	15.9	25.8	15.3		101	TO THE RE
6	HAUL ROADS		10	1933	7.9	1	8.1			
7	PERMANENT PATHS FOR USE OF PERSONS		10		8.5	MA NO	8.3			
8	PUMPING STATION-CENTRAL SUMP		40		33.9	1	34.3			100
	PUMPING STATION- WEST SUMP		40		35.7		35.2			
	PUMPING STATION- COAL FACE SUMP		40		34.8		35.7			
9	REST SHELTER (MINES TIME OFFICE)		30	10.10	30.7		31.4			
10	FIRST-AID-STATION (MINES)		30	0	31.2	427 1	30.3			
		50	100	54.8	103.2	55.3	102.1			AND THE
11	SUB-STATION (MAIN)	50	100	40.5	90.1	41.2	89.8			
	SUB-STATION (MINES)	50	50	40.3	NA.	42.14	NA	1965		
12-	CHP-FIRST-AID STATION	50	100	51.6	101.5	52.4	102.3	1550 PA		1. 1071
CHP	CHP-SUB-STATION	50	100	NA	NA	NA	NA	THE NO		A. W.
	CHP-WORK SHOP	50	30	INA	15.1	1475	14.1		13 60	1100
	CHP-REST SHELTOR	1.5	-	15.7	15.9	15.5	16.1	THE STATE OF		1
	CHP-COAL STOCK YARD	15	15	15.7	33.7	13.3	34.8			
	CHP-HAND PICKING POINTS	-	50		14.2	15.9	13.8			
	CHP-MANUAL WORKING ZONE	25	15	16.1	32.9	13.5	33.8			The state of the s
41	CHP-DRIVE HEAD OF CONVEYORS		40	1	33.8		34.9	WELL STATE OF	A CONTRACTOR OF THE	
100	CHP-PLACE OF CRUSHING		40	- N	-		15.8			
	CHP-ALONG CONVEYOR-B2		20	1	16.1		16.7			
	CHP-ALONG CONVEYOR-B4		20		16.5					
37.37	CHP-ALONG CONVEYOR-D2		20		16.9		17.9			
1	CHP-ALONG CONVEYOR-D4	10	20	N. A.	16.8	-	16.9	-		
	CHP-TAIL END OF CONVEYOR-B5		40		34.8		35.4			
	CHP-TAIL END OF CONVEYOR-DS		40		35.9	1	36.1			
	CHP-TRANSFER POINT-B3		40		35.5	1 7 7 5	35.1			
	CHP-TRANSFER POINT-D3		40		35.1		34.6			
12	FC-FIRST-AID STATION		50		53.4		52.3			
13- FC	FC-SUB-STATION	50	100	51.4	101.8	52.4	102.5			13/33
10	FC-WORK SHOP	50	100	NA	NA	NA	NA			DOM:
1	FC-REST SHELTOR		30	1	26.4		25.7	9 12 Noonal		
1 1 3		15	15	15.4	15.9	15.8	16.1			
	FC-COAL STOCK YARD	2.0	50		24.9		25.6			1 - 424
	FC-HAND PICKING POINTS		50	01	27.8	A VIII	28.7			
Who	FC-OPERATORS CABIN-1		50	0 2007	28.4		29.5			
PAGE 1	FC-OPERATORS CABIN-2		50		31.4		32.2	40000		
1	FC-OPERATORS CABIN-3		50		36.8		38.7	The state of the s		(8.0 min)
	FC-OPERATORS CABIN-4		40		35.2		34.5			
	FC-DRIVE HEAD OF CONVEYOR-1	-	_		30.1		29.8			
	FC-DRIVE HEAD OF CONVEYOR-2	20	40	1111	27.9		28.1			TO THE
	FC-DRIVE HEAD OF CONVEYOR-3		40		_		28.5			100.1
	FC-DRIVE HEAD OF CONVEYOR-4	-	40	-	27.6		29.6	5 5 5 6		
	FC-PLACE OF CRUSHING-1	1-1-2-	40		28.5		_			
1	FC-PLACE OF CRUSHING-2	4	40		30.8		31.4			
	FC-PLACE OF CRUSHING-3	THE PARTY OF THE P	40	The second	30.7	THE REAL PROPERTY.	30.2		A STATE OF THE PARTY OF THE PAR	100000

		1 2	1740	1 20 37	728.7	200	29,2	9	1	
7	FC-PLACE OF CRUSHING-4		20	-	16.4		16.1			-
	FC-ALONG CONVEYOR-1	CONTRACTOR OF THE PARTY OF THE	20		15.7		15.5	A Warran		
	FC-ALONG CONVEYOR-2		20		15.3		15.1			
	FC-ALONG CONVEYOR-3		20		15.1		14.9			
	FC-ALONG CONVEYOR-4		40		24.7		24.1			
	FC-TAIL END OF CONVEYOR-1		40		24.3	100	24.8			
	FC-TAIL END OF CONVEYOR-2		40		24.6	1700	23.2			
	FC-TAIL END OF CONVEYOR-3		40	10.00	23.9	4.19	23.6		-	
	FC-TAIL END OF CONVEYOR-4	200	40	19.1	35.2	18.4	36.1		_	
	FC-CHUTE OPENING-1		-	22.3	34.8	21.3	35.5			
	FC-CHUTE OPENING-2			25.1	35.9	24.9	36.8			
	FC-CHUTE OPENING-3			24.9	36.7	24.3	37.6			
	FC-CHUTE OPENING-4		100	54.1	90.8	53.2	91.2	2		
-	WORK SHOP-50 Te DUMPER	50	100	51.7	93.1	51.4	92.5			
	WORK SHOP-DOZER	50	100	44.2	86.1	43.4	85.6			
	WORK SHOP-AUX	50	100	44.2	53.8		54.1			
	PARKING YARD - DUMPER		50	-	53.2		54.7			
	PARKING YARD - DRILL		50		1 33.2	N. TIE	and the second			

Electrical Supè Jagannath Colliery.

Electrical Supervisor Jagannath Colliery

SR. OVERMAN Jagannath Colliery

**Electrical Safety Officer** Jagannath Colliery

Safety Officer Jagannath Colliery Project Manager. Jagannath Colliery.

#### Distribution:-

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

REF NO: POPETHOP 1004 forming 140 foot / 111

DATE: 2200001

# ILLUMINATION SURVEY ON DTD: 26-02-21 & 27-02-21 OF JAGANNATH COLLIERY, JAGANNATH AREA/MCL.

#### INSPECTION TEAM

(1)SAFETY OFFICER:----Sri A.K. Das, Sr. Mgr.(Min)

(2) ELECTRICAL SAFETY OFFICER:----Sri Ajaya Ku. Sahoo, Mgr.(E&M)

(3)ELECTRICAL SUPERVISOR (1) ----- Sri SrinibashKhuntia, F.M.(E&M)

(4)ELECTRICAL SUPERVISOR(2):-----Sri P. C. Dalei, A. F.M. (E&M)

(S)SR. OVERMAN------Sri Rajesh Kumar Yadav, Sr. O/M, Safety Deptt.

SL NO	LOCATION	AS DGMS	ARD PER	ACTUA				TAKEN	PROCUREMENT ACTION (If Any)	REMARKS
		CIRCU	LAR	CURRE	250.00	PREVIO				
			10	V	Н	V	Н			
	PURIL ARE	V 25	H 15	28.3	17.5	29.2	18.7			
1	EXCV-459	-	-		20.8	39.1	22.9			
	EXCV-534	25	15	35.6		23.1	15.8			
	EXCV-1200-D-ANANTA	25	15	23.7	15.1	22.2	13.5			
	EXCV-1000-D-FRONT	25	15	23.1	13.7		12.7	-		
	EXCV-1000-D-BACK	25	15	17.9	13.2	18.1	100 100 100 100 100 100 100 100 100 100			
	OPERATORS CABIN-EXCV-459		50		51.1		50.2			
	OPERATORS CABIN-EXCV-534		50		50.9		51.4			150 Back 1
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50	1000	49.4		48.6			35 45 10
	OPERATORS CABIN-EXCV-1000-D-FRONT		50		50.2		47.1	VI = 10/2		
	OPERATORS CABIN-EXCV-1000-D-BACK		50		48.4		47.2			
2	AREA OF DRILLING RIG WORKS	25		22.9	4	23.8		1000		
3	AT DRILL HOLES	100	15	150	NA ,	-	NA			107
4	OB DUMP	15	15	16.3	17.1	17.9	13.2		1, 1	1 11
5	COAL FACE	25	15	25.8	15.3	26.8	14.7		1000	
6	HAUL ROADS		10		8.1		7.9	AND THE		-
7	PERMANENT PATHS FOR USE OF PERSONS	W. L.S.	10		8.3		8.5			
8	PUMPING STATION-CENTRAL SUMP		40	100	34.3		35.7			
	PUMPING STATION- WEST SUMP	Marie I	40	9.300	35.2		36.1	Maria Alexander		
	PUMPING STATION- COAL FACE SUMP		40		35.7		37.4	ALC: ALL		
9	REST SHELTER (MINES TIME OFFICE)		30		31.4		33.9	100		
10	FIRST-AID-STATION (MINES)		30	Cha	30.3		31.2			
11	SUB-STATION (MAIN)	50	100	55.3	102.1	54.1	100.6			
	SUB-STATION (MINES)	50	100	41.2	89.8	40.5	91.2			
12-	CHP-FIRST-AID STATION		50	71	NA		NA	Win. TR		HERD HOLES
CHP	CHP-SUB-STATION	50	100	52.4	102.3	51.8	101.2		TANK TO SERVICE STATE OF THE PARTY OF THE PA	4.53.10%
	CHP-WORK SHOP	50	100	NA	NA	NA	NA	or mound of	ATT CHINESING C.	A COLUMN TO THE REAL PROPERTY OF THE PARTY O
	CHP-REST SHELTOR		30	14.5	14.1		13.2			0.80116.17
	CHP-COAL STOCK YARD	15	15	15.5	16.1	15.4	15.5		STATE OF THE PARTY	
	CHP-HAND PICKING POINTS		50		34.8		35.4			
	CHP-MANUAL WORKING ZONE	25	15	15.9	13.8	16.9	14.4			
	CHP-DRIVE HEAD OF CONVEYORS	-	40	10,0	33.8	20.5	34.3	1		1
	CHP-PLACE OF CRUSHING	-	40		34.9		34.6			+
	CHP-ALONG CONVEYOR-B2		20		15.8		16.9			
	CHP-ALONG CONVEYOR-B4		20		16.7		17.8	a la		
	CHP-ALONG CONVEYOR-D2	-	20	+	17.9	+	18.5			
		-	20	-	16.9	1	18.1		-	-
	CHP-ALONG CONVEYOR-D4	-	40		35.4	+	36.1			100000000000000000000000000000000000000
	CHP-TAIL END OF CONVEYOR-B5					+	155/65/60-7	-		
	CHP-TAIL END OF CONVEYOR-D5	-	40		36.1	-	35.4			
	CHP-TRANSFER POINT-B3		40	-	35.1	1	35.7			
100	CHP-TRANSFER POINT-D3		40		34.6	-	35.2			
13-	FC-FIRST-AID STATION		50		52.3		50.8			
FC	FC-SUB-STATION	50	100	52.4	102.5	51.6	103.1			
	FC-WORK SHOP	50	100	NA	NA	NA	NA			
	FC-REST SHELTOR		30		25.7		27.6			
	FC-COAL STOCK YARD	15	15	15.8	16.1	15.5	15.7		March Till State William	TO THE PARTY OF
	FC-HAND PICKING POINTS		50	11/1/11	25.6		26.8			
	FC-OPERATORS CABIN-1		50		28.7	Thomas .	29.6			
	FC-OPERATORS CABIN-2	3 500	50		29.5	1000	31.2			
	FC-OPERATORS CABIN-3		50		32.2		34.4			
	FC-OPERATORS CABIN-4		50		38.7		40.4			
	FC-DRIVE HEAD OF CONVEYOR-1		40		34.5	1	35.1	-		-
	FC-DRIVE HEAD OF CONVEYOR-2		40		29.8		30.9			
	FC-DRIVE HEAD OF CONVEYOR-3	-	40		28.1		29.1			-
	FC-DRIVE HEAD OF CONVEYOR-4		40		-	+	-			
			-	-	28.5		29.2	-		
	FC-PLACE OF CRUSHING-1	-	40	-	29.6	-	30.3		10 10 10 10 10	
	FC-PLACE OF CRUSHING-2	-	40	100	31.4	-	30.1			
	FC-PLACE OF CRUSHING-3	0.81	40		30.2		29.1		The second second	and a contract of

	FC-PLACE OF CRUSHING-4		40	1	29.2			-		
	FC-ALONG CONVEYOR-1		20		-		28.5			P. 1117/11
	FC-ALONG CONVEYOR-2		20	-	16.1		15.3			
	FC-ALONG CONVEYOR-3			-	15.5		15.9		MATERIAL PROPERTY.	
	FC-ALONG CONVEYOR-4		20		15.1		15.5			
	FC-TAIL END OF CONVEYOR-1	-	20		14.9		15.8			To Great Annual Control
	FC-TAIL END OF CONVEYOR-2		40		24.1		23.7			
-	FC-TAIL END OF CONVEYOR-3		40		24.8		25.1			
	FC-TAIL END OF CONVEYOR-4		40		23.2		22.9			
			40		23.6		23.2			
	FC-CHUTE OPENING-1			18.4	36.1	18.7	35.9			
	FC-CHUTE OPENING-2			21.3	35.5	20.2	36.8			
	FC-CHUTE OPENING-3	Blad In		24.9	36.8	25.1	37.8			
	FC-CHUTE OPENING-4		1	24.3	37.6	-				
14	WORK SHOP-SO Te DUMPER	50	100			24.3	38.6			
	WORK SHOP-DOZER	-	100	53.2	91.2	54.1	90.1			
	WORK SHOP-AUX	50	100	51.4	92.5	50.8	90.3			100-19
	PARKING YARD - DUMPER	50	100	43.4	85.6	42.6	84.1			
	PARKING YARD - DRILL	-	50		54.1		53.7	THE REPORT OF		
	T SANGE ORICE		50		54.7		53.1			

Electrical Supervisor Jagannath Colliery.

**Electrical Supervisor** Jagannath Colliery

SR. OVERMAN Jagannath Colliery

**Electrical Safety Officer** Jagannath Colliery

Safety Officer Jagannath Colliery

Project M Jagannath Colliery.

#### Distribution:-

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

DATE: 15.02 -21 REF NO POTATICS SURVEY ON DTD: 13-02-21 & 15-02-21 OF AGANNATH COLLIERY, JAGANNATH AREA/MCL.

#### INSPECTION TEAM

(1)SAFETY OFFICER -- Sri A.K. Das, Sr. Mgr. (Min)

(2) ELECTRICAL SAFETY OFFICER:—Sri Ajaya Ku. Sahoo. Mgr.(E&M)

(3)ELECTRICAL SUPERVISOR (1) ------Sri SrinibashKhuntia, F.M.(E&M)

(4) ELECTRICAL SUPERVISOR(2):----SH P. C. Dallel, A. F.M. (E&M)

Svi Rajesh Kumar Yadav, Sr. O/M, Safety Deptt. SSR OVERMAN-

SL NO	LOCATION	AS DGMS	PER	ACTUA	1			ACTION TAKEN	PROCUREMENT ACTION (If Any)	REMARKS
		CIRCU	LAR	CURRE	7800	PREVIO				
		V	н	V	н	V	н			
1	EXCV-459	25	15	29.2	18.7	31	20.6			
	EXCV-534	25	15	39.1	22.9	41	23			
	EXCV-12XX-D-ANANTA	25	15	23.1	15.8	22	16			
	EXCV-1000-D-FRONT	25	15	22.2	13.5	21.3	13.1			
	EXCV-1000-D-BACK	25	15	18.1	12.7	17.9	13.2			
	CIPENATURS CABIN-EXCV-459	1	30	-	50.2		51.2			
	OPERATORS CABIN-EXCV-534	1	50		51.4		53.1			
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50	100	48.6		49.2			
	OPERATORS CASIN-EXCV-1000-D-FRONT	1	50		47.1		46.5			
	OPERATORS CABIN-EXCV-1000-D-BACK		50		47.2	-	47.5			
2	AREA OF DRILLING RIG WORKS	25		23.8	41.4	24.3				
3	AT DRILL HOLES		15	400	NA	24.5	NA			
4	OS DUMP	15	15	17.9	132.5	18.3	13.3			
5	COAL FACE	25	15	26.8	14.7	27.1	14.2	-		-
5	HAUL ROADS	1	10	20.0	7.0	2113	3.1			-
7	PERMANENT PATHS FOR USE OF PERSONS	1	10	1	8.5		8.3			-
8	PUMPING STATION-CENTRAL SUMP	1	40		35.7	-	36.8			
	PUMPING STATION- WEST SUMP	1	40	-	36.1		35.4			-
	PUMPING STATION- COAL FACE SUMP	1	40		37.4	-	37.2	-		-
9	REST SHELTER (MINES TIME OFFICE)	1	30	1	33.9		34.3	-		-
10	FIRST-AID-STATION (MINES)		30	-	31.2	-	-	-		
11	SUB-STATION (MAIN)	- 50	-		-		30.1			
**		50	100	54.1	100.6	53.4	101.2	-		-
12-	SUB-STATION (MINES)	50	100	40.5	91.2	41.4	90.5	-		
CHP	CHP-FIRST-AID STATION	100	50		NA	1	NA	1		1000
CHP	CHP-SUB-STATION	50	100	51.8	101.2	52.9	100.2			N. St.
	CHP-WORK SHOP	50	100	NA	NA	NA	NA		112	
	CHP-REST SHELTOR	1	30	1	132.1		12.9			100
	CHP-COAL STOCK YARD	15	15	15.4	15.5	16,4	15.9			
	CHP-HAND PICKING POINTS	-	50	1	35.4		36.5			
	CHP-MANUAL WORKING ZONE	25	15	16.9	14.4	17.2	14.1			
	CHP-DRIVE HEAD OF CONVEYORS		40	-	34.3		35.1			1000
	CHP-PLACE OF CRUSHING		40		34.6		35.5			
	CHP-ALONG CONVEYOR-82		20		16.9		17.1			S. Carriero
	CHP-ALONG CONVEYOR-84		20		17.8		18.4			
	CHP-ALONG CONVEYOR-D2		20		18.5		18.3			100
	CHP-ALONG CONVEYOR-D4		20		18.1		17.9	District Control	The last to the last the	
	CHP-TAIL END OF CONVEYOR-BS		40		36.1		37.3			
	CHP-TAIL END OF CONVEYOR-DS		40		35.4	1	37.5	-		
	CHP-TRANSFER POINT-B3		40		35.7		36.6	1		-
	CHP-TRANSFER POINT-D3		40		35.2		36.1			-
13-	FC-FIRST-AID STATION		50		50.8	1	51.4	-	-	-
FC	FC-SUB-STATION	50	100	51.6	103.1	52.3	102.5	-		
1	FC-WORK SHOP	50	100	NA NA	NA NA	NA NA	-	-		
		30	1000	TEN		NA	NA 20.5			
	FC-COAL STOCK YARD	31	30	35.5	27.6	15.0	28.5			
	FC-HAND PICKING POINTS	15	15	15.5	-	15.9	16.2			
		-	50	-	26.8	-	27.4			
	FC-OPERATORS CABIN-1	-	50	-	29.6	-	34.1			A LONG
	FC-OPERATORS CABIN-2	-	50	-	31.2	-	33.7			
	FC-OPERATORS CABIN-3	-	50	1	34.4		35.8			
	FC-OPERATORS CABIN-4		50		40.4		40.1			
	FC-DRIVE HEAD OF CONVEYOR-1		40		35.1		34.3			
	FC-DRIVE HEAD OF CONVEYOR-2		40		30.9		31.2			
	FC-DRIVE HEAD OF CONVEYOR-3		40		29.1		28.9			
	FC-DRIVE HEAD OF CONVEYOR-4		40		29.2		28.5	NI LINCH		
	FC-PLACE OF CRUSHING-1		40		30.3		30.1			
	FC-PLACE OF CRUSHING-2	9	40		30.1	1	29.2			
	FC-PLACE OF CRUSHING-3	-	40	-	29.1	-	29.8	_		

	FC-PLACE OF CRUSHING-4		40		28/7	30//	28.4	1 3 3 3 7 7 3 3 3		
	FC-ALONG CONVEYOR-1		20		15.3	-	15.8		manufacture of the same of the	_
	FC-ALONG CONVEYOR-2		20		15.9		16.1		and the second s	_
	FC-ALONG CONVEYOR-3		20		15.5		15.9		-	
	FC-ALONG CONVEYOR-4		20		15.8		16.3			
	FC-TAIL END OF CONVEYOR-1		40		23.7		23.4			
	FC-TAIL END OF CONVEYOR-2		40		25.1		24.2			
	FC-TAIL END OF CONVEYOR-3		40	A. Carlo	22.9		23.1			
	FC-TAIL END OF CONVEYOR-4		40		23.2		22.6	-		
	FC-CHUTE OPENING-1			18.7	35.9	18.9	36.3			
	FC-CHUTE OPENING-2			20.2	36.8	19.1	37.2			
	FC-CHUTE OPENING-3			25.1	37.8	24.3	38.8			
	FC-CHUTE OPENING-4			24.3	38.6	24.1	39.2			
14	WORK SHOP-50 Te DUMPER	50	100	54.1	90.1	55.1	89.5			
	WORK SHOP-DOZER	50	100	50.8	90,3	50.4	90.4			
	WORK SHOP-AUX	50	100	42.6	84.1	43	83.2			
	PARKING YARD - DUMPER		50		53.7		53.4			
	PARKING YARD - DRILL		50		53.1		52.8			

Electrical Supervisor Jagannath Colliery. Electrical Supervisor
Jagannath Colliery

SR. OVERMAN Jagannath Colliery

Electrical Safety Officer Jagannath Colliery Safety Officer \\
Jagannath Colliery

Project Manager.

Jagannath Colliery.

#### Distribution:-

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

DATE: 30-01-24

REF NO:- PORTHOPSON HIT WAT TON BORN TO DATE: 15-02-21 BILLUMINATION SURVEY ON DTD: 13-02-21 & 15-02-21 OFJAGANNATH COLLIERY, JAGANNATH AREA/MCL. DATE: 150202

INSPECTION TEAM

(1) SAFETY OFFICER:--Sri A.K. Das, Sr. Mgr.(Min) (2) ELECTRICAL SAFETY OFFICER:——Sri Ajaya Ku. Sahoo, Mgr.(E&M) (3)ELECTRICAL SUPERVISOR (1) -----Sri SrinibashKhuntia, F.M.(E&M) (4)ELECTRICAL SUPERVISOR(2):----Sri P. C. Dalei, A. F.M. (E&M)

(5)SR. OVERMAN-----Sri Rajesh Kumar Yadav, Sr. O/M, Safety Deptt.

SL NO	LOCATION	STAN AS DGM	DARD PER	ACTU	IAL			ACTION TAKEN	STATUS: PROCUREMENT ACTION (II Any)	REMARKS
		25350096	ULAR	CURR		PREVI			ACTION (II Any)	
1	FUCIL AND	V	Н	V	Н	V	H			
*	EXCV-459	25	15	29.2	18.7	31	20.6			
	EXCV-534	25	15	39.1	22.9	41	23			
	EXCV-1200-D-ANANTA	25	15	23.1	15.8	22	16			
	EXCV-1000-D-FRONT	25	15	22.2	13.5	21.3	13.1			
	EXCV-1000-D-BACK	25	15	18.1	12.7	17.9	13.2			
	UPERATURS CABIN-EXCV-459		50		50.2		51.2			
	OPERATORS CABIN-EXCV-534	L Visites	50		51.4		53.1		Washington and	
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50		48.6	-	49.2	-		
	OPERATORS CABIN-EXCV-1000-D-FRONT		50		47.1		46.5			
	OPERATORS CABIN-EXCV-1000-D-BACK		50		47.2		47.5			1000
2	AREA OF DRILLING RIG WORKS	25		23.8	4714	24.3	4713			
3	AT DRILL HOLES		15	23.0	NA.	24,5	NA			
4	OB DUMP	15	15	17.9	132.5	18.3	13.3			
5	COAL FACE	25	15	26.8	14.7	27.1	14.2			
6	HAUL ROADS	-	10	20.0	7.0	27.1	8.1			
7	PERMANENT PATHS FOR USE OF PERSONS		10		8.5	1000	8.3			
8	PUMPING STATION-CENTRAL SUMP		40		35.7		36.8			
	PUMPING STATION- WEST SUMP		40		36.1	-	35.4			
	PUMPING STATION- COAL FACE SUMP	-	40		_		-		-	-
9	REST SHELTER (MINES TIME OFFICE)		30		37.4	-	37.2		-	
10	FIRST-AID-STATION (MINES)		30	-	33.9	-	34.3			
11	SUB-STATION (MAIN)	50	-		31.2		30.1			
	SUB-STATION (MINES)	50	100	54.1	100.6	53.4	101.2			
12-	CHP-FIRST-AID STATION	50	100	40.5	91.2	41.4	90.5			
HP	CHP-SUB-STATION	-	50		NA		NA			
	CHP-WORK SHOP	50	100	51.8	101.2	52.9	100.2			34.
		50	100	NA	NA	NA	NA		70	Will be
	CHP-REST SHELTOR	100	30		132.1		12.9			
	CHP-COAL STOCK YARD	15	15	15.4	15.5	16.4	15.9			
	CHP-HAND PICKING POINTS	25	50		35.4		36.5			
	CHP-MANUAL WORKING ZONE	25	15	16.9	14.4	17.2	14.1			
	CHP-DRIVE HEAD OF CONVEYORS		40		34.3		35.1			
	CHP-PLACE OF CRUSHING	-	40		34.6	STALL	35.5			
	CHP-ALONG CONVEYOR-B2		20	2 34	16.9		17.1			
	CHP-ALONG CONVEYOR-B4		20		17.8		18.4			
	CHP-ALONG CONVEYOR-D2		20		18.5		18.3			
	CHP-ALONG CONVEYOR-D4		20		18.1		17.9		I Secretary of the	
	CHP-TAIL END OF CONVEYOR-B5		40	1	36.1		37.3			
	CHP-TAIL END OF CONVEYOR-D5		40		35.4	Region .	37.5			and the same
	CHP-TRANSFER POINT-B3	A Company	40		35.7	10000	36.6			
	CHP-TRANSFER POINT-D3		40		35.2	10000	36.1			
3-	FC-FIRST-AID STATION		50		50.8		51.4			
	FC-SUB-STATION	50	100	51.6	103.1	52.3	102.5			
	FC-WORK SHOP	50	100	NA	NA	NA	NA			
	FC-REST SHELTOR		30		27.6		28.5	CONTRACTOR OF THE PARTY OF THE		
	FC-COAL STOCK YARD	15	15	15.5	15.7	15.9	16.2			
	FC-HAND PICKING POINTS		50	The state of the s	26.8		27.4			10000
	FC-OPERATORS CABIN-1		50		29.6		34.1			
	FC-OPERATORS CABIN-2		50	1000	31.2		33.7			
	FC-OPERATORS CABIN-3		50		34.4		35.8			
1	FC-OPERATORS CABIN-3		50		40.4		40.1	-		-
-		1	40		35.1					
	FC-DRIVE HEAD OF CONVEYOR-1	-	-		-	-	34.3	-	_	
	FC-DRIVE HEAD OF CONVEYOR-2	-	40		30.9		31.2		-	
	FC-DRIVE HEAD OF CONVEYOR-3	-	40		29.1	-	28.9			
	FC-DRIVE HEAD OF CONVEYOR-4		40	122	29.2	1	28.5			
	FC-PLACE OF CRUSHING-1		40		30.3		30.1			
	FC-PLACE OF CRUSHING-2		40		30.1		29.2			
	FC-PLACE OF CRUSHING-3	100 40	40		29.1		29.8			

								The state of the s	
-	FC-PLACE OF CRUSHING-4		40 /	1821	28.5	19-16	28.4	111/1	7776376
	FC-ALONG CONVEYOR-1		20		15.3	Jara I	15.8		The second second
	FC-ALONG CONVEYOR-2		20		15.9		16.1		
	FC-ALONG CONVEYOR-3		20		15.5		15.9	I TOWN	
	FC-ALONG CONVEYOR-4		20		15.8		16.3		
	FC-TAIL END OF CONVEYOR-1		40		23.7		23.4		
	FC-TAIL END OF CONVEYOR-2		40	MILLER	25.1		24.2		A PROPERTY OF THE PERSON NAMED IN COLUMN 1
	FC-TAIL END OF CONVEYOR-3		40	19/13	22.9		23.1		
	FC-TAIL END OF CONVEYOR-4		40		23.2		22.6		
	FC-CHUTE OPENING-1		1	18.7	35.9	18.9	36.3		
	FC-CHUTE OPENING-2			20.2	36.8	19.1	37.2		
	FC-CHUTE OPENING-3			25.1	37.8	24.3	38.8		
	FC-CHUTE OPENING-4			24.3	38.6	24.1	39.2		
4	WORK SHOP-50 Te DUMPER	50	100	54.1	90.1	55.1	89.5		
•	WORK SHOP-DOZER	50	100	50.8	90.3	50.4	90.4		
	WORK SHOP-AUX	50	100	42.6	84.1	43	83.2	THE TAX	1
	PARKING YARD - DUMPER		50		53.7		53.4		1
	PARKING YARD - DRILL		50		53.1	1287-19	52.8		

Jagannath Colliery.

**Electrical Supervisor** Jagannath Colliery SR. OVERMAN Jagannath Colliery

**Electrical Safety Officer** Jagannath Colliery

Safety Officer Jagannath Colkery

Jagannath Colliery.

#### Distribution:-

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

REF NO:- PO THE PROPERTY PROPERTY DATE:- 15-02-21 OF JAGANNATH COLLIERY, JAGANNATH AREA/MCL. DATE: 15-62-21

#### INSPECTION TEAM

(1)SAFETY OFFICER:-------Sri A.K. Das, Sr. Mgr.(Min)

(2) ELECTRICAL SAFETY OFFICER: --- Sri Ajaya Ku. Sahoo, Mgr.(E&M)

(3)ELECTRICAL SUPERVISOR (1) -----Sri SrinibashKhuntia, F.M.(E&M)

(4)ELECTRICAL SUPERVISOR(2):-----Sri P. C. Dalei, A. F.M. (E&M)

(5)SR. OVERMAN-----Sri Rajesh Kumar Yadav, Sr. O/M, Safety Deptt.

NO	LOCATION	AS	DARD PER	ACTU	AL		100	ACTION TAKEN	STATUS: PROCUREMENT	REMARKS
		CIRCU		CURR		PREVI			ACTION (If Any)	
		V	Н	V	Н	V	Н			
1	EXCV-459	25	15	29.2	18.7	31	20.6	Appliant		WALT CO
	EXCV-534	25	15	39.1	22.9	41	23			
	EXCV-1200-D-ANANTA	25	15	23.1	15.8	22	16			
	EXCV-1000-D-FRONT	25	15	22.2	13.5	21.3	13.1	THE PARTY OF		
	EXCV-1000-D-BACK	25	15	18.1	12.7	17.9	13.2			
	OPERATORS CABIN-EXCV-459		50		50.2	100	51.2			
	OPERATORS CABIN-EXCV-534		50		51.4		53.1			
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50		48.6		49.2			
	OPERATORS CABIN-EXCV-1000-D-FRONT		50		47.1		46.5			
2	OPERATORS CABIN-EXCV-1000-D-BACK		50		47.2		47.5			Sales Contract
3	AREA OF DRILLING RIG WORKS AT DRILL HOLES	25		23.8		24.3				
4	OB DUMP		15		NA		NA			
5		15	15	17.9	132.5	18.3	13.3		Symmetry (A)	
6	COAL FACE HAUL ROADS	25	15	26.8	14.7	27.1	14.2		The state of the s	
7	PERMANENT PATHS FOR USE OF PERSONS	+	10		7.0		8.1			
8	PUMPING STATION-CENTRAL SUMP	144	10		8.5		8.3			
	PUMPING STATION-CENTRAL SOMP	-	40		35.7		36.8			
	PUMPING STATION- COAL FACE SUMP		40		36.1		35.4			
9	REST SHELTER (MINES TIME OFFICE)	-	40		37.4		37.2			
10	FIRST-AID-STATION (MINES)	+	30		33.9		34.3			
11	SUB-STATION (MAIN)	50	100	EAI	31.2	F2.4	30.1			
	SUB-STATION (MINES)	50	100	54.1	100.6	53.4	101.2			
17-	CHP-FIRST-AID STATION	100	50	40.5	91.2 NA	41.4	90.5			
CHP	CHP-SUB-STATION	50	100	51,8	101.2	52.9	NA 100.2			-
	CHP-WORK SHOP	50	100	NA NA	NA NA	NA NA	NA		177	
	CHP-REST SHELTOR	- 30	30	14/3	132.1	IVA	12.9		18 30 16	327
	CHP-COAL STOCK YARD	15	15	15.4	15.5	16.4	15.9		1	of the second
	CHP-HAND PICKING POINTS		50	25.1	35.4	10.4	36.5			
	CHP-MANUAL WORKING ZONE	25	15	16.9	14.4	17.2	14.1			
	CHP-DRIVE HEAD OF CONVEYORS		40		34.3		35.1			Constant of the last
	CHP-PLACE OF CRUSHING		40		34.6		35.5			
	CHP-ALONG CONVEYOR-B2		20		16.9		17.1			
	CHP-ALONG CONVEYOR-B4	1	20		17.8		18.4	Berlin II		
	CHP-ALONG CONVEYOR-D2		20		18.5		18.3			
	CHP-ALONG CONVEYOR-D4		20		18.1		17.9			
	CHP-TAIL END OF CONVEYOR-B5		40	100	36.1		37.3			
	CHP-TAIL END OF CONVEYOR-DS		40		35.4		37.5			
	CHP-TRANSFER POINT-B3		40		35.7		36.6			
	CHP-TRANSFER POINT-D3		40		35.2	100	36.1			No. of the last
3-	FC-FIRST-AID STATION		50	2	50.8		51.4	-		
c	FC-SUB-STATION	50	100	51.6	103.1	52.3	102.5			
	FC-WORK SHOP	50	100	NA	NA	NA	NA.			
	FC-REST SHELTOR		30		27.6	1473	28.5	-		
	FC-COAL STOCK YARD	15	15	15.5	15.7	15.9	16.2			
	FC-HAND PICKING POINTS		50		26.8	2010	27.4			
	FC-OPERATORS CABIN-1		50		29.6		34.1		-	
	FC-OPERATORS CABIN-2		50		31.2		33.7			
	FC-OPERATORS CABIN-3		50		34.4		35.8			
	FC-OPERATORS CABIN-4		50		40.4	-	40.1		-	
	FC-DRIVE HEAD OF CONVEYOR-1		40		35.1	1	34.3		-	-
	FC-DRIVE HEAD OF CONVEYOR-2		40		30.9		31.2			
	FC-DRIVE HEAD OF CONVEYOR-3		40		29.1	1	28.9			
	FC-DRIVE HEAD OF CONVEYOR-4		40		29.2	1-9-	28.5			
	FC-PLACE OF CRUSHING-1		40		30.3	1	30.1			
	FC-PLACE OF CRUSHING-2		40		30.1		29.2			

	FC-PLACE OF CRUSHING-4		40 /	1//	28.5	11/1/19	28.4 /	175/201	17-37/3/	Q AND
	FC-ALONG CONVEYOR-1		20	Min w	15.3	191 11	15.8		Market 191	To the same
	FC-ALONG CONVEYOR-2		20		15.9		16.1			1
	FC-ALONG CONVEYOR-3		20		15.5		15.9			
	FC-ALONG CONVEYOR-4		20		15.8		16.3			The second second
	FC-TAIL END OF CONVEYOR-1		40		23.7		23.4			
	FC-TAIL END OF CONVEYOR-2		40		25.1		24.2			
day	FC-TAIL END OF CONVEYOR-3		40		22.9		23.1			1
	FC-TAIL END OF CONVEYOR-4		40		23.2		22.6			
	FC-CHUTE OPENING-1			18.7	35.9	18.9	36.3			
	FC-CHUTE OPENING-2			20.2	36.8	19.1	37.2			
	FC-CHUTE OPENING-3		STATE OF	25.1	37.8	24.3	38,8		-	
	FC-CHUTE OPENING-4			24.3	38.6	24.1	39.2			
1	WORK SHOP-50 Te DUMPER	50	100	54.1	90.1	55.1	89.5			THE REAL PROPERTY.
	WORK SHOP-DOZER	50	100	50.8	90.3	50.4	90.4			MALE
	WORK SHOP-AUX	50	100	42.6	84.1	43	83.2			di di Ri
	PARKING YARD - DUMPER		50	Train .	53.7	100	53.4		A CHIEN I	
	PARKING YARD - DRILL		50		53.1		52.8			CHL CHEN

Electrical Sup Jagannath Colliery.

**Electrical Supervisor** Jagannath Colliery

SR. OVERMAN Jagannath Colliery

**Electrical Safety Officer** 

Safety Office Jagannath Colliery Project Maha Jagannath Colliery.

#### Distribution:-

Jagannath Colliery

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

REFNO: Pot FHC/MANSCLANGER PORT 178

DATE: 30-01-24

## ILLUMINATION SURVEY ON DTD: 29-01-21 & 30-01-21 OF JAGANNATH COLLIERY, JAGANNATH AREA/MCL.

#### **INSPECTION TEAM**

NO	LOCATION	AS	PER	ACTUA	L			ACTION TAKEN	PROCUREMENT ACTION (If Any)	REMARKS
		CIRCU		CURRE		PREVIO	0.80			
		V	Н	V	Н	V	Н			
1	EXCV-459	25	15	31	20.6	16.9	14.1			
	EXCV-534	25	15	41	23	15.7	13.8			
	EXCV-1200-D-ANANTA	25	15	22	16	17.3	12.4			
	EXCV-1000-D-FRONT	25	15	21.3	13.1	16.1	12.5	RINTE OF		
	EXCV-1000-D-BACK	25	15	17.9	13.2	17.1	13.8			
	OPERATORS CABIN-EXCV-459	1	50		51.2		43.3			
	OPERATORS CABIN-EXCV-534		50		53.1		45.2			MATERIAL
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50		49.2		47.8	He still a little		
	OPERATORS CABIN-EXCV-1000-D-FRONT		50		46.5		48.5	by the latest		
	OPERATORS CABIN-EXCV-1000-D-BACK		50	1	47.5	100000	47.1			
2	AREA OF DRILLING RIG WORKS	25	1	24.3		23.4	15	PHENNE		
3	AT DRILL HOLES		15	To Table	NA	1000	NA			
4	OB DUMP	15	15	18.3	13.3	13.2	12.2		Grant Control	The state of the s
5	COAL FACE	25	15	27.1	14.2	16.7	12.2	Chould be	100000000	The state of the s
6	HAUL ROADS		10	1	8.1		7.9			The state of the s
7	PERMANENT PATHS FOR USE OF PERSONS		10		8.3		8.4			
8	PUMPING STATION-CENTRAL SUMP		40	(4,179)	36.8		37.9			
	PUMPING STATION- WEST SUMP		40		35.4	E 48	38.1			
	PUMPING STATION- COAL FACE SUMP		40		37.2		35.5	And the second		
9	REST SHELTER (MINES TIME OFFICE)		30		34.3	10000	33.5			H STEEL STEEL
10	FIRST-AID-STATION (MINES)		30		30.1	10000	29.7	(E)	THE FOREST STATES	
11	SUB-STATION (MAIN)	50	100	53.4	101.2	52.9	100.5	The Marie		
	SUB-STATION (MINES)	50	100	41.4	90.5	40.1	89.5			
12-	CHP-FIRST-AID STATION		50		NA	-	NA.			1 (10)
CHP	CHP-SUB-STATION	50	100	52.9	100.2	53.8	100.5			
	CHP-WORK SHOP	50	100	NA	NA	NA	NA	EU LUI		F- 20
1	CHP-REST SHELTOR		30		12.9		13.2		1 1 2 16 290	1120
	CHP-COAL STOCK YARD	15	15	16.4	15.9	15.4	15.2			
	CHP-HAND PICKING POINTS		50		36.5		36.9			THE PROPERTY OF THE PARTY OF TH
	CHP-MANUAL WORKING ZONE	25	15	17.2	14.1	16.1	13.9			
	CHP-DRIVE HEAD OF CONVEYORS		40		35.1		34.9		THE PARTY NAMED IN	
	CHP-PLACE OF CRUSHING		40	1	35.5		35.2	Unidades		
	CHP-ALONG CONVEYOR-B2		20	1	17.1		17.4			
	CHP-ALONG CONVEYOR-B4		20		18.4		18.9	A CONTRACTOR		
	CHP-ALONG CONVEYOR-D2		20		18.3		17.6			
	CHP-ALONG CONVEYOR-D4		20	1	17.9		18.2			
	CHP-TAIL END OF CONVEYOR-B5		40		37.3		36.9			
		1	40		37.5		37.1			
	CHP-TAIL END OF CONVEYOR-D5		40		36.6		37.8			
	CHP-TRANSFER POINT-B3		40		36.1		35.4			
	CHP-TRANSFER POINT-D3		_				_			
13-	FC-FIRST-AID STATION	- 50	50	F2.2	51.4	FAO	52.8			-
FC	FC-SUB-STATION	50	100	100000000000000000000000000000000000000	102.5					
	FC-WORK SHOP	50	100	NA	NA 20.5	NA	NA 25.0			
	FC-REST SHELTOR	-	30		28.5	-	26.9			
	FC-COAL STOCK YARD	15	15	15.9		15.1	_			
	FC-HAND PICKING POINTS		50		27.4		28.2			
	FC-OPERATORS CABIN-1		50		34.1		28.8			100
	FC-OPERATORS CABIN-2		50		33.7		30.5	_		
	FC-OPERATORS CABIN-3	1	50		35.8		37.9			
	FC-OPERATORS CABIN-4		50		40.1		39.8			
	FC-DRIVE HEAD OF CONVEYOR-1		40		34.3		33.1			
	FC-DRIVE HEAD OF CONVEYOR-2		40		31.2		30.7			
	FC-DRIVE HEAD OF CONVEYOR-3		40	(II) (F.)(II)	28.9		26.5			
	FC-DRIVE HEAD OF CONVEYOR-4		40		28.5		25.9			
	FC-PLACE OF CRUSHING-1		40	3	30.1		26.1	_		
	FC-PLACE OF CRUSHING-2		40		29.2	007	25.2	_		
							60.6			

-			40		28.X		28.8	
	HE PURCE OF CRESPRENS A		20		25.8		26.3	
	ACHIOMIC COMMEAGE 2		30		55.1		15-8	
	TC-ALONG CONVEYOR-2		20	-	15.5		16.5	
	FC-ALONS CONVEYOR-3		20	-	16.3		15.5	
	FC/ALONG CONVEYOR-4		100	-	29.4		25.2	
	FC-THIL END-OF COMMEYOR-S		-	-	24.2		30.9	
	FC-THIL END OF CONVEYOR-1		40	-	23.1		20.9	
	FC-CML END-OF CONVEYOR-3		40		22.5		23.3	
	EC-TAIL END OF CONNEYOR-4		40	-		17.5	34.8	
	FC-OHUTE OPENING-1		_	18.9	36.3		81	
	FC-CHUTE OPENING-1			19.1	37.2	15.9		
	*COUNT OPENING-3			28.3	38.8	22.9	35.8	
	PC-CHUTE OPENING-4			28.1	35.2	25.6	6.1	
-	WORK SHOP 50 Te DUMPER	30	100	55.1	89.3	51.7	73.2	
	WORK SHOP-OCITES	50	300	58.4	90 A	45.5	63.1	
	MOM SHOP SUIT	50	100	49	83.2	64.5	78.9	
	PARKING YARD - DUMPER		50		53.4		52.8	
	FARKING YARD - DRILL		50		52.8		51.9	

Electrical Supervisor Jagannath Colliery. Electrical Supervisor Jagannath Colliery SR. OVERMAN Jagannath Colliery

Electrical Safety Officer Jagannath Colliery

Safety Officer

Jagannath Colliery

Project Manager O

#### Distribution:

- (1) The GM(S&R), MCL.
- (2) The Project Officer, JNC.
- (3) The Safety Officer, JNC.
- (4) The Project Engineer(E&M), JNC- with the request to make necessary improvement in illumination.
- (5) File

REF NO:-

DATE:-

#### JAGANNATH COLLIERY, JAGANNATH AREA/MCL. ILLUMINATION SURVEY ON DTD: 12-01-21 & 14-01-21 OF

**INSPECTION TEAM** 

(1)SAFETY OFFICER:-----Sri A.K. Das, Sr. Mgr.(Min)

(2) ELECTRICAL SAFETY OFFICER:----Sri Ajaya Ku. Sahoo, Mgr.(E&M)

10	LOCATION	STANDA AS DGMS	PER	ACTUA	L			TAKEN	PROCUREMENT ACTION (If Any)	REMARKS
		CIRCUL	AR	CURRE	25/60	PREVIO	NG			
		٧	Н	V	Н	V	H 13.1			
1	EXCV-459	25	15	16.9	14.1	17.4	13.1		The second second	
	EXCV-534	25	15	15.7	13.8	15.6				
	EXCV-1200-D-ANANTA	25	15	17.3	12.4	17.2	12.1			
	EXCV-1000-D-FRONT	25	15	16.1	12.5	16.3	12.3			
	EXCV-1000-D-BACK	25	15	17.1	13.8	16.9	13.7	-		
	OPERATORS CABIN-EXCV-459		50		43.3		43.1			The state of the s
	OPERATORS CABIN-EXCV-534		50		45.2		44.9			
	OPERATORS CABIN-EXCV-1200-D-ANANTA		50		47.8		48.7	-		
	OPERATORS CABIN-EXCV-1000-D-FRONT	le consul	50		48.5		48.8			
	OPERATORS CABIN-EXCV-1000-D-BACK		50		47.1		46.7			
2	AREA OF DRILLING RIG WORKS	25		23.4		23.2		1000		
3	AT DRILL HOLES		15	No.	NA	1	NA			
4	OB DUMP	15	15	13.2	12.2	13.1	12.4			
	COAL FACE	25	15	16.7	12.2	16.4	11.7			
5	HAUL ROADS		10		7.9		8.1			1
7	PERMANENT PATHS FOR USE OF PERSONS		10		8.4		8.3			-
8	PUMPING STATION-CENTRAL SUMP		40		37.9	14 -	38.7			-
	PUMPING STATION-CENTRAL SOMP	1	40		38.1		37.5			
	PUMPING STATION- COAL FACE SUMP		40		35.5		35.4			-
-			30		33.5		33.2			1
9	REST SHELTER (MINES TIME OFFICE)	+	30		29.7		30.2			
10	FIRST-AID-STATION (MINES)	50	100	52.9	100.5	54.1	100.2			
11	SUB-STATION (MAIN)	50	100	40.1	89.5	39.6	90.2			
	SUB-STATION (MINES)	- 30	50	1.0.2	NA		NA			
12-	CHP-FIRST-AID STATION	50	100	53.8	100.5	54.2	101			
CHP		50	100	NA	NA	NA.	NA			
	CHP-WORK SHOP	30	30	100	13.2	1	12.5			
	CHP-REST SHELTOR	15	15	15.4	15.2	15.8	15.4	No.		
	CHP-COAL STOCK YARD	13	50	-	36.9		36.2			
1	CHP-HAND PICKING POINTS	25	15	16.1		15.9	14.2			
	CHP-MANUAL WORKING ZONE	123	40	-	34.9	10	35.2			
10	CHP-DRIVE HEAD OF CONVEYORS	-	40		35.2	1000	34.8			
))	CHP-PLACE OF CRUSHING	-	20	1	17.4		17.6			
	CHP-ALONG CONVEYOR-B2		20		18.9		19.4			
	CHP-ALONG CONVEYOR-B4		20	-	17.6		18.3			
	CHP-ALONG CONVEYOR-D2	-	20		18.2		18.7			
	CHP-ALONG CONVEYOR-D4	-	40		36.9		37.4			
	CHP-TAIL END OF CONVEYOR-B5			-		+	37.2			
1	CHP-TAIL END OF CONVEYOR-D5		40	-	37.1	+-	38.1	_		
	CHP-TRANSFER POINT-B3		40		37.8		_	_		
	CHP-TRANSFER POINT-D3		40	_	35.4	-	35.1			
13-	THE PERSON NAMED IN COLUMN NAM		50	-	52.8		53.4			
FC	FC-SUB-STATION	50	10				_	2		
1	FC-WORK SHOP	50	10	_	_	NA				
	FC-REST SHELTOR		30	_	26.9		27.1	_		
	FC-COAL STOCK YARD	15	_	_		_	_	_		
1	FC-HAND PICKING POINTS		50		28.2	_	27.4	_		-
	FC-OPERATORS CABIN-1		50		28.8	_	29.9	_		-
	FC-OPERATORS CABIN-2		50		30.5		30.			-
1	FC-OPERATORS CABIN-3		50		37.9		38.	-		
	FC-OPERATORS CABIN-4		50	0	39.8		41.	4		
	FC-DRIVE HEAD OF CONVEYOR-1		40	0	33.1		32.	7		-
	FC-DRIVE HEAD OF CONVEYOR.2		4		30.7		30.	2		- 0-
1	FC-DRIVE HEAD OF CONVEYOR-2		4		26.5	5	26.	3		
1	FC-DRIVE HEAD OF CONVEYOR-3		4	_	25.9	_	25.	2		
	FC-DRIVE HEAD OF CONVEYOR-4			0	26.	_	25.	4		
9	FC-PLACE OF CRUSHING-1	-		0	25.		24.	.6.		
	FC-PLACE OF CRUSHING-2		4		25.		25			

FC-PLACE OF CRUSHING-4		40		24.9		24.8		-	
FC-ALONG CONVEYOR-1		20		16.1		15.6		-	
FC-ALONG CONVEYOR-2		20		15.8		16.1		-	
FC-ALONG CONVEYOR-3		20		16.3		16.2		1	
FC-ALONG CONVEYOR-4		20		15.9		15.8		-	
FC-TAIL END OF CONVEYOR-1		40		21.2		20.4		-	
FC-TAIL END OF CONVEYOR-2		40		20.8		21.2		-	
FC-TAIL END OF CONVEYOR-3		40		20.9		21.1			
FC-TAIL END OF CONVEYOR-4		40		21.1		21.2		-	
FC-CHUTE OPENING-1		1	17.5	34.8	17.3	35.4		-	
FC-CHUTE OPENING-2			15.9	37.1	15.8	36.9		-	
			22.9	39.8	23.1	40.2		-	
FC-CHUTE OPENING-3			21.6	41.8	21.4	42.9			-
FC-CHUTE OPENING-4	50	100	51.7	73.2	52.4	72.4			
WORK SHOP-50 Te DUMPER	50	100	43.9	63.1	44.3	62.5		-	
WORK SHOP-DOZER	50	100	64.8	74.9	65.4	75.4	1	-	
WORK SHOP-AUX	- 100	50		52.8		53.4		-	
PARKING YARD - DUMPER PARKING YARD - DRILL		50		51.9		52.3			

**Electrical Supervisor** Jagannath Colliery.

**Electrical Supervisor** Jagannath Colliery

SR. OVERMAN Jagannath Colliery

**Electrical Safety Officer** Jagannath Colliery

Safety Officer Jagannath Colliery Project Man Jagannath Colliery.

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- (5) File



# Corporate Environment Policy 2018



# Mahanadi Coalfields Limited

(A Miniratna Subsidiary company of Coal India Limited)
Jagriti Vihar, Burla, Sambalpur-768020, Odisha
CIN No:U10102OR1992GOI003038

#### **Environmental Policy Statement:**

Mahanadi Coalfields Limited(MCL) is committed to promote sustainable development by protecting the environment through integrated project planning & design, prevention / mitigation of pollution, conservation of natural resources, restoration of ecology & biodiversity, recycling/ proper disposal of wastes, addressing climate change and inclusive growth. It also aims to bringing awareness amongst its stakeholders for continual improvement in environmental performances following best practices.

#### **OBJECTIVES:**

#### Mahanadi Coalfields Limited shall endeavor to:

- 1. Plan & design projects with due consideration to environmental concerns for Sustainable Development.
- 2. Conduct mining and associated operation in an environmentally responsible manner to comply with applicable laws and other requirements related to environmental aspects.
- 3. Prevent pollution of surrounding habitation by continuous monitoring and adopting suitable measures for environment protection.
- 4. Implement Environment Management Plans in all our mines /projects effectively to mitigate pollution, conservation of natural resources and restoration of ecology & biodiversity.
- 5. Ensure compliance of all applicable Environmental Clearance & Forestry Clearance conditions and other statutory conditions issued by regulatory agencies.
- 6. Recycling of wastes on the principle of REDUCE, REUSE and RECYCLE.
- 7. Put special thrusts on efficient energy utilization / renewable energy as a measure to reduce carbon foot-print.
- 8. Strive for continual improvement in our environmental performances by setting targets, measuring progress and taking corrective action.
- 9. Taking measures to render productive post mining land use.
- 10. Implementation of activities applicable to MCL arising out of International Conventions.
- 11. Create environmental awareness among the employees and the local communities through pro-active communication and training.

# STRATEGIES FOR IMPLEMENTATION OF ENVIRONMENTAL POLICY:

#### **Back Ground:**

Coal India Limited subscribes to the view of Sustainable Development. Unless the environment can sustain all the developmental activities, any pursuit of development in isolation can cause irreparable damage to the ecosystem and associated environmental attributes. Keeping this view in mind, Coal India Limited attaches top priority towards sustainable development and approved its 'Corporate Environmental Policy' in December 1995, which was subsequently revised in 2012. However, the present policy is the amendment of the 2012 Policy and is complimentary to the National Environmental Policy, 2006.

This modification in the present policy is the outcome of the experience gained since 2012 keeping in view the modifications / amendments made time to time in environmental policies and additional stipulation notified by MoEF&CC (Ministry of Environment, Forest& Climate Change) and other organisations concerning mine closure, reclamation of degraded land, environmental clearance etc. and also with the objective of revisiting the corporate policy.

This Policy has a vision of Green Mining and mission of 100% compliance of environmental statutes applicable to coal mining industry.

**Strategies:** Mahanadi Coalfields Limited adopts the strategies appended below for effective implementation:

# 1. MINE/ PROJECT PLANNING & DESIGN FOR SUSTAINABLE DEVELOPMENT:

- a) Coal being a non-renewal energy source, extraction shall be planned prudently to meet national requirement in a planned way. The projects shall be designed on the principle of Sustainable Development with due consideration to environment, mine closure, safety and aspirations of the stakeholders at the planning& design stage itself with due regard to mine closer plan.
- b) While preparing the Mining plan/project reports, the effort shall be to incorporate latest mining technologies and equipment's with optimal capacity, which are more environment friendly.
- c) All Mining Plan/ project reports will be provided with detailed provisions for ensuring environmental compliances.

# 2. ENVIRONMENTAL IMPACT ASSESSMENT (EIA) & ENVIRONMENT MANAGEMENT PLAN (EMP)

- a. All mine planning and design shall be environmentally acceptable and operation shall be carried out in such a way as to facilitate the compliance of stipulated environmental standards.
- b. EIA& EMP for all projects shall be formulated as per the approved ToR (Terms of Reference) and pubic consultations for obtaining Environmental Clearance (EC) from MoEF&CC. Similarly, in the existing projects needing enhancement of production capacities with or without increase in land, change of technology, renewal of lease and change in land use etc. fresh EC is required to be sought as per norms. The projects shall be operated after obtaining Consent to Establish (CTE)/Consent to Operate (CTO) from State Pollution Control Boards (SPCB).
- c. Detailed Mine Closure Plans shall be prepared for all existing and new mines as per the MoC (Ministry of Coal) guidelines.

#### 3. COMPLIANCE OF THE STATUTORY REQUIREMENTS:

The implementation of EMP and fulfillment of all other statutory requirements like conditions of EC, FC and consents to establish & operate, including timely submission of returns to statutory bodies and various agencies, are to be ensured at all levels.

#### 4. MEASURES TO MITIGATE POLLUTION:

#### a) Air Pollution:

- i) Generation of dust is to be controlled at the source to the possible extent with necessary control measures during drilling, blasting, loading, unloading, CHP transfer points etc.
- ii) Deployment of eco-friendly mining technologies.
- iii) Dust generation is to be minimized along coal / waste transportation routes.
- iv) Mechanized transportation of coal to be encouraged.
- v) Green belt is to be created around the source of dust.

#### b) Water pollution:

i) The mine water and other effluent shall be treated to ensure the discharge norms as per statute. The treated effluent shall be utilized to the extent possible with a view to achieve maximum water conservation.

ii) Oil & grease from the effluent shall be removed by Oil & Grease Traps for proper disposal.

#### c) Noise / ground vibration:

- i) All measures to minimize noise pollution will be taken including maintenance of HEMM, equipment and provision of PPE where required.
- ii) Suitable controlled blasting techniques shall be followed to reduce ground vibration as well as noise pollution.

#### d)Land reclamation:

- i) Progressive and concurrent reclamation of mined out areas will be carried out as per approved EIA/EMP and Mine Closure Plan (MCP).
- ii) Slopes of external dumps are the important area to be suitably graded / terraced for effective reclamation and plantation.
- iii) Preservation of top soil is required for future use. Old as well as existing non-active dumps are to be technically and biologically reclaimed.
- iv) Monitoring of reclamation work of all opencast mines will be done through Satellite Surveillance. The outcome shall be put in the websites.

#### e) Mine closure plans:

Mine Closure Plan (MCP) shall be prepared for each mine. MCP are being delineated in two phases viz. progressive and final mine closure. Appropriate funds are set aside and deposited under a special Escrow fund every year as per MoC guidelines, to be utilized for proper and final mine closure.

For mines closed prior to issuance of MoC guidelines (i.e. 27<sup>th</sup> August, 2009) suitable action to be taken as per provisions of Mines Act 1952.

#### f) Mine fire

MCL shall endeavour to reduce occurrence of mine fire and subsidence due to mining activity. Monthly report shall be submitted to top management of the MCL and CIL and Quarterly to company board. Action Plan for mine fire control shall be implemented. Monitoring will be done through Satellite Surveillance/other suitable technology.

#### g) Monitoring:

- I. All receptors in and around the mining projects shall be monitored regularly to assess the efficacy of the pollution control / mitigation measures within stipulated standards.
- II. Effect of mining on the hydrology of the area will be monitored through measurement of water level and its quality of nearby wells and bore holes provided for this purpose. Conservation of water through rainwater

- harvesting shall be taken up.
- III. Area and Unit environmental cells shall have regular interaction with the people in and around the coal mines and other allied units on matters related to environment to take necessary and timely corrective actions.
- V. Environmental initiatives and monitoring through self and third party environment audit shall be conducted for generating useful data for taking corrective actions and mitigation measures as per guidelines.

#### h) Other measures:

- I. Special emphasis shall be given to undertake R&D related to various facets of coal mine environmental management in collaboration with Central Mine Planning and Design Institute (CMPDI) and other competent institutions.
- II. Besides ensuring statutory compliance, the MCL desires to set high standards and continual improvement.
- III. All mines and establishments of MCL are ISO 9001:2008 ISO 14001:2004 and OHSAS 18001:2007 certified
- IV. CSR and R&R policies of MCL are to be incorporated for better planning and implementation of the socio-economic issues of coal mining areas.
- V. The coal mining environmental issues are complex and require multidisciplinary approach to address the same. MCL will endeavor to enter into MoUs with expert agencies of repute to assist in environment issues and also help in capacity building of MCL executives.
- VI. MCL conducts periodical medical examination (PME) of its work force on routine basis in compliance of the requirement mining rules and regulation, additional tests will be done as and when required.

#### 5. PRESERVATION OF BIO-DIVERSITY:

- a) This will start from mine planning including technically and biologically reclamation of mined out areas in collaboration with State Forest Departments, Wild Life Divisions, NGOs etc. working in the fields of biodiversity conservation.
- b) The selection of species for plantation shall be done in consultation with the local community to include the local species and their preferences, if any.

#### 6. COAL BENEFICIATION / COALWASHERIES:

- a) For beneficiation of Runoff Mines (ROM) coal, washeries are being set up in a phased manner as per requirement and statutes.
- b) Slurry Management System (SMS) in all washeries shall be organized to

ensure collection of fines, gainful utilization of rejects viz. power generation in Fluidized Bed Combustion (FBC) plants, selling to brick manufacturers or adopting other environmental friendly disposal options as feasible.

- c) The reject dumps and tailings shall be suitably handled to avoid any contamination.
- d) The effluent from washeries including tailings pond shall be suitably treated and reused to minimize water consumption with zero discharge concept.

#### 7. CONSERVATION AND CLEAN TECHNOLOGY:

- a) R&D projects shall be taken up to promote clean coal technology and improve the existing technologies.
- b) Energy saved is energy produced. Voluntary energy audit to be done for corrective action to reduce carbon footprint.
- c) Clean Development Mechanisms will be explored for reducing emission of Green House Gases by exploration, identification, preparation of projects reports for extraction of methane from Coal Bed, Coal Mine, Abandoned Mine, Ventilation Air, UG Coal Gasification, generation and utilization of renewable energy etc.

#### 8. AWARENESS PROGRAMME:

- a) Publicity to generate awareness through exchange & communication of information, newsletters and periodicals on environment, seminars, workshops, celebration of World Environment Day etc. at MCL HQ, Areas & units to be undertaken. Regular training programs to be organized at various levels to inculcate awareness among employees.
- b) Courses on environmental and forestry laws and Environmental Protection Measures and the Corporate Policy to be organized for project executives for improving knowledge.
- c) MCL to give annual awards for achieving excellence in environment related issues and activities. These awards will be in recognition for implementation of EMP, land reclamation and compliance of statutes, proper maintenance of air & water quality and noise level.

#### 9. WASTE MANAGEMENT:

MCL will undertake appropriate action for safe handling, storage and disposal of solid waste and hazardous waste generated from its industrial set up and colonies as per relevant rules. The biomedical waste generated from hospitals

and dispensaries will be collected and disposed in appropriate facilities created as per statutes. E-waste management and handling of various types of e-waste generated in its operations will be done as per rule.

#### 10. CORPORATE ENVIRONMENT RESPONSIBILITY:

Corporate Environment Responsibility (CER) is mandatory for issuing environmental clearance for all the Greenfield and Brownfield projects as per directives of MoEF & CC with effect from 1<sup>st</sup> May, 2018 (O.M.No.22-65/2017-IAIII dt. 19.06.2018). Budgetary provisions should be kept for implementation of provisions of CER for all the projects which will be submitted to MoEF & CC for grant of environmental clearance.

#### 11. INCORPORATION OF VIEWS OF STAKEHOLDERS:

MCL will critically examine and incorporate the viewpoints of various stakeholders like PAPs/PAFs, Parliamentary Committees, Standing Sub-Committees, NGOs etc. The parental company CIL being a listed entity with stock exchange, it will also take into consideration the observations/viewpoints of international investors.

#### 12.IMPLEMENTATION OF POLICY:

- i) Manpower: MCL shall have environmental divisions at decision making & operational levels in its structure. The environment department shall be set up and strengthened at:
  - i) Corporate HQ at Sambalpur
  - ii) Areas / Units / Collieries / Workshops / Washeries / Other establishments
- **ii) Roles and Responsibilities:** The environmental department, set up at company HQs, Areas and Unit levels with appropriate manpower and resources, shall be responsible for implementation of policy, obtaining EC, FC, consent to establish & operate, statutes' requirements and undertaking mitigation measures besides preparation of action plan every year and also to intimate the status of implementation to the management regularly.
- iii) Annual Environment Budget (Revenue & Capital): The Annual Environment Budget (revenue & capital) shall be prepared based on the action plan including monitoring of various bench marks and the budget utilization. The year wise funds earmarked for environmental protection measures shall be kept in separate accounts with Environmental cost code.

#### 13. FLEXIBILITY TO THE SUBSIDIARY COMPANIES:

CEP 2018 will be applicable for all subsidiaries of CIL. The subsidiary company Boards have been authorized to approve necessary modifications in CEP 2018 with reference to unique conditions prevailing at the concerned subsidiary.

#### **REVIEW OF ENVIRONMENTAL POLICY:**

In view of the present fast changing social, economic and environmental scenario, this Policy shall be reviewed every 5 years to incorporate the changes in the legal, technical, environmental, economic and social inputs prevailing at that time. Whenever, there is change in National Environmental Policy or other National / State relevant policies, Acts etc, this Corporate Environmental Policy would be reviewed and suitably revised.

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# ଜଗନ୍ନାଥ କୋଇଲା ଖଣି ସମ୍ପସାରଣ ପାଇଁ କେନ୍ଦ୍ରୀୟ ମଞ୍ଜୁରୀ

ତାଳଚେର,୧୪ା୯(ଆପ୍ର): ଏମ୍ସିଏଲ୍ ଜଗନ୍ନାଥ ଖୋଲା କୋଇଲା ଖଣିର ସମ୍ପସାରଣ ପାଇଁ କେନ୍ଦ୍ର ପରିବେଶ ଓ ଜଙ୍ଗଲ ବିଭାଗ ପକ୍ଷର ମଞ୍ଜୁରୀ ମିଳିଛି । ଏହି ସମୁସାରଣ ପୁକଳ୍ପ ମୂଲ୍ୟ YOC.01 କୋଟି ଟଳା। ୫୫୩.୯୪୬ ହେକର ଜମିରେ (୧୨୩.୨ ହେକର ଅତିରିକ୍ତ) ଖଣି କାର୍ଯ୍ୟ କରାଯିବ । ଏହି ସମ୍ପସାରଣ ଖଣି କାର୍ଯ୍ୟରେ ରାକସ ଗାମ ପ୍ରାବିତ ହେବା ୧୮୫ ଜଣ (ଅତିରିକ୍ତ) ସ୍ଥାୟୀ ନିଯୁକ୍ତି ପାଇବେ ବୋଲି ଜଣାପଡ଼ିଛି । ଅପରପକ୍ଷରେ ପରୋକ୍ଷ ଭାବେ ଅନେକ କର୍ମସଂସ୍କାନ ପାଇପାରିବେ । ଜଗନ୍ନାଥ ଖଣି ସମ୍ପସାରଣ ପାଇଁ



ପରିବେଶ ମଞ୍ଜୁରୀ ମିଳିବା ପରେ ଏହାର ଉତ୍ପାଦନ କ୍ଷମତା ୬ ମିଲିୟନ୍ ଟନ୍କୁ ବୃଦ୍ଧି ପାଇବ । ତେବେ ପର୍ଯ୍ୟାବରଣର ସମଞ୍ଜ ନିୟମକୁ ପାଳନ ସର୍ଭରେ ଚଳିତ ମାସ ୯ ତାରିଖ ଦିନ ଏହି କେହ୍ରୀୟ ମଞ୍ଜୁରୀ ମିଳିଥିବା ଜଣାପଡ଼ିଛି । ଜଗନ୍ନାଥ ଖୋଲା କୋଇଲା ଖଣିରୁ ଦୈନିକ ୨୦/୨୫ ହଜାର ଟନ୍ କୋଇଲା

ଉତ୍ପାଦନ ହେଉଥିବା ବେଳେ ଏନ୍ଟିପିସି ପରିଚାଳିତ ତାଳଚେର ଅର୍ମାଲ୍କୁ ୫/ ୬ ହଳାର ଟନ୍ କୋଇଲା ଯୋଗାଇ ଦିଆଯାଇଥାଏ । ଜମି ଅଭାବରୁ ଏହି ଖଣିରୁ କୋଇଲା ଉତ୍ପାଦନରେ ବାଧା ସୃଷ୍ଟି ହୋଇଥିଲା । ତେବେ ପରିବେଶ ମଞ୍ଜୁରୀ ମିଳିବା ପରେ ଖଣି ଉତ୍ପାଦନରେ ଅଗ୍ରଗତି ହେବ ବୋଲି ଜଣାପଡ଼ିଛି ।

### ଢେଙ୍କାନାଳ ବିଧାୟକଙ୍କୁ କରୋନା

commo, exerting ); commo विश्वस्थ विश्वस्थ क्षित्रस्थ व्यवस्थ TOTAL CRIDGE | CHIDO & чинь осе чинее вания ଜଗିଆରେ ଏ ସମ୍ପରେ ସୂହବା रवक्षक्ष । एवं युद्ध श्रवः ववः वाकतव cod departed



εθμά του άβδο συμό όμας ον διμαρι ονδισ ලිසේ සදිපණ (ලින්ම)ය යැල්ණ ඔහුරිය සෞඛණ වෙන් ඉයක් මෙය ගැනගේ හා පළවෙන මෙමේ?

#### କ୍ସରେଷାଇନ୍ତେ ଟାଉନ୍ ଥାନାର ସମୟ କର୍ମଚାରୀ

ଦେଇତାର, ୧୪/୧(ଆଲୁ): ଦେଇତାର ସାହର ଆଧାର ସମୟ ବର୍ଣ୍ଣର ବ୍ୟବଶ୍ୱର ଅନ୍ତର୍ଶ । ଆହାର ବରେ ସବ୍ୟସିଷ୍ଟେବର ବଲୋନ ପଡ଼ିବିକ୍ ବେଲବରି । ଜଳ ලේසිස් කුරෝම කෙසල සමණ කමණත සහභාගාවරිය астранции вой вой обрание и война and og due ad departed uppg i counce අදහස දෙකු දෙකට අදෙකුවක ඇතුළුදක සාක්ෂණ SERVICES THE SERVICE I BOSTON BOY GOVERN опарат ре двиова вородкова пао пед ගැන සහග ගඩන විසනකළහ අතස පදවරිය ඇතේ විස

# କେନାଲର୍ ଅଜଣା ବ୍ୟକ୍ତିକ ଶବ ଉଦ୍ଧାର ବଞ୍ଚାରେ ବନ୍ଧା ପାଇଥିଲା ମୃତଦେହ

നെങ്ങരെ, സന് ആ): ഒറ്റേറെ തന് വേത്തെന്നെ ആ рооф ивобр обре описи посковную поского करत तकत कावतः तुक्तक क्रका दशक्ये। तुक्तकर्



गुर्ह EDIGITOR OR coopen da **६०६वृक्ष क्षणा** endeği dem

ନାକୁ ବ୍ୟବହ୍ରେବ ସିଧାରେ ପଠାଇଥି । ତେତେ ମୁହ ବ୍ୟକ୍ତିତ କୌଷରି ପରିତର ମିଳି ପରିଚାହିଁ । ମୃତ ଦେହକି ପ୍ରୟ ୨ ଯୁ ୩ ଦିନର coo oil none comoli don com misson ୧୯୫ପିଟ ପୁସ୍ତବହ ମହିଳ, କମରଚତତ ଅତା ଅଧିକଳା ଅଭିଚତ क्रक, बद्दक्क करा क्रम्बार क्रोड दका दक्ष वर् । ଅନିକ ନାମଣ ଜବତ ବଦର ୬ ନିର୍ଦ୍ଧି । ଜିଲ୍ଲମିକ ନବିହାର

# ଗୋଟିଏ ରାତିରେ ଆଖ୍ବୃଜିଲେ ମା'-ପୂଅ

сични, кит (вд): сични еон од сабодо ପଞ୍ଚାରତ ସେବିବସ୍ୱର ପ୍ରମୟେ ବବିବର ଅବଦର୍ଶୟ ପଦଶ ପଦିହି । ସେହିଏ ରହିରେ ହିଛି ସମୟ ବାବଧାନରେ ମ'-ପ୍ରଅଟ ମୁହ୍ୟ ପ୍ରବାଶ ଅନ୍ତରେ ବୃହତ ହରତରଣ ବୃଦ୍ଧି ତତିହି । ସେହିକ୍ଲେ ନିରବ cacona na mano papa origini sampe amp (୬୩) ଉଦିବାର ଓାଡି ପ୍ରାଣ ୧ ସହିବା ସ୍ୱମଣରେ ବିଲୋଗ रक्षेत्रप्रवर्ते । रहेते रुप्ते स्थवरंग राज्य स, रक्षात रठव (rs)en esécudo Octo citgos se'e écono ୨୫ ନେଇ ବେ ହୃତ୍ୱରତ ଶିବର ହୋଇଥିଲେ । ସର ମଧ୍ୟର පරිපර සඳහ අලුල පරිසුවට දකුමල පණ්ඩුවේ වා පේස क्राबाद गर्वेजी युक्त करका बराव शुक्राई रणवादन राजक प्रसाद कर प्राथम । स्थापि क्षा स्थाप कर प्रसाद क्षा स्थाप । स्थापि क्षा प्रसाद । स्थापि क्षा स्थाप कर स्थापि क्षा स्थाप ଥିବା । ପ୍ରେମନଦଳ ଅଧିବାର ଜନ୍ମ ଅଂବଳରେ ମେନାସୀ ଓ acologic exe cod osida i u-dan genoce овбеда для вспе ялекветесью его Вт. стда ପ୍ରତାସ ସଂ, ପୂର୍ବତତ ସରସଞ୍ଜ ଉଗତ ତତ୍ର ସମଲ ଓ ଗୋସର ବ୍ୟର ପୂର୍ବତତ ଅଧ୍ୟକ୍ତ ବ୍ୟସମ ବଦଳ ଲେକ ପ୍ରକଳ କଦିଛନ୍ତି ।

## ଅବସରପ୍ରାୟ ପୁଲିସ୍ କମଚାରୀକ ମୃତ୍ୟୁ

व्यव व्यव्य का प्रथमतुत्र वृद्धव क्रांक्स व्यवक्रत **ब्रह्म क्ष्मिल स्थान । ब्रह्म क्ष्मिल क्षम् व्यव्यक्त** ceoloco ginco cinoo esi cedigoë i gi olog හරියා සරියා අවශයෙන්ද අවිත අතර සහ තමන අයට ବୋଲବାଲି ଅନର୍ଯ୍ୟଥ । ଶଳବେ ଉପ୍ତର୍ଶଙ୍କ । ବହଳଣିକ ଅଧବଲ ବ୍ୟେଲବାଲି ଅନର୍ଯ୍ୟଥ । ଶଳବେ ଉପ୍ତର୍ଶଙ୍କ ଅଧିକଥ ଲେବେ କ୍ରପତ ସେହିଁ ତାଙ୍କର ମୃତ୍ୟ ହୋଇପରଥିବା ଜଣଯଇଛି । ସେ व्यव अर्गवाक्षक व्यव द्वावाक व्यव क्षावक्षक व्यव ପର୍ଜିଷରେ ଜଣେ ସବୁହା କର୍ଯ୍ୟବର୍ତ୍ତ ଲଙ୍ଗେ ପର୍ଜିତ ପୂରେ । ଜଗନ୍ଦର සහසන, මෙමම මණි සම්ම මිසිල් සමුලේ සම්ම මම්ල් ରହିଥିଲେ । ତାଙ୍କର ମୃତ୍ୟୁରେ ପ୍ରମରର ଖେବର ଅବଂ ର

#### ଶାଳ କାଠ ସହ ମିନିଟ୍କ ଜବତ

ensende despe EDB THING GOGING FIDER OF YOUR DOO RD R99 REE oo Sola i gool



negati,cooks alsoe so noge (sea ecs case) कर का सरकार कहा करकार प्रस्ति अवस्था। हराह SOCIONOS GRAS CONSTRA DE POR GODO ସହ ସବହର ବଳ୍କ ବଳ କଳ କଳ କଳେ ଅନିକୃ ହେଉ କରିଥିଲେ । ସେବେ ବଟ କର୍ମଗରୀଙ୍କୁ ଦେବୁ ଗଣି ନାକକ ସଫଣ व्यवस्थ कर सामिता। न स्वयं कर चेवार प्रशास नक समय ම්බල්ට විශ්ර අතර අත හරිගම ඉල

#### ଳିଲ୍ଲାରେ ସଙ୍ଗିନ୍ ହେଉଛି କରୋନା ପ୍ଲିତି

# ଦିନକରେ ୮୦ ଆକ୍ରାଡ ଚିହ୍ନଟ

ଦେବାହାତ ହିଲ୍ଲାରେ ଜରୋଗା ବ୍ୟରମଣରେ ଉପୁଡି ପ୍ରେପ୍ । ଜମିବ CITION TO PROPERTY OF en need on empan රේකරුව සහගෙන ඉතුනු ඉති Le déue ଜଣ୍ଡ ଜଣେଖି। пф товае бывае агабал ne es i Bases offers pr କଳର ଓ ଶିରଦେଶତ ବୃତ୍ତି व्यवस्थ विवयः स्थान् वाव ereño celesti felca ଜ୍ଞମଣତ ଫଲ୍ଲମଣ ଜନୁଷ୍ଟକ ଏହା අදහන්න විශ්ය අගේ අදහම් ( самов бее ru вее пид ଦଳ ନାର୍ଚ୍ଚ ବ୍ୟବସ୍ଥର ବାଦକଦର arego gas conti cadheen acea oned 4. GEORGE VOID, 1901 VOID,



cade one, offeres, némae, eme cero ažnče rac, evnocego, क्षा काल, जुक्का, वक्किय BIG BERR GOS CHOICE हर्वष्टियों हार्व चवन चुक्त वर्वस्य १४ शहात वृद्ध соорді «дея біўосяеці s, ciadaia s, agai, обпениения, переда, penn On app o secon

वृद्धा वंतर हरेद ध्य क्वद nuco aiditro ridigeg s. PRESENT, REPORT RECOR. बहुबवा, nocengen, вое вхория в коробае ରେବାର୍ବ ସଂସ୍ଥମିତ ହୋଇଛନ୍ତି । в е, ревозорен прор чегоф packed acc aims and ହେଉଥର । ଶତାସତ୍ୱା ବୃଷ୍ଟ ବିଷ୍ଟ es dest need colong a. च्छाच्या त अव्यक्तित्र १ तथ ରେଖର୍ଣ, ରାହ୍ନପୁଦ୍ୟ, ବରିପୁର ଓ souddied see coald ସଂକ୍ରମିତ ଦିବୁଟ ହୋଇଛନ୍ତି । pulsoan 468 586 il ope HUGO edequals. cocoagener, on ରଗିରଷ୍ଟ୍ର, ସ୍ତ୍ରତ୍ତିଶ୍ର ពនិទ្ធនិ ( ខេត្តទីភូពិ ពេកទទ ១៥០

वरावाद करत दशकार जायाव предоля осе в орого gon decourand ace orada dae colecăl göb sand söb paneget educes ed enungi sepah na sa он вер ор сев вер cortietà i miti cadesa Desca ERIC YEART DOOR STOP OF ପ୍ରଥଳ ପର୍ଯ୍ୟ ପଠରେଥି । ଏଥି FARE ROOM ORDIN COOK සම්බුණ දෙදෙන ඉතිබල සිදුකුත් අතරක්ඛය ගම්ම ( අතුනිකක් පාසා ५५४० व्यवस्था सब वर्त द्वार eggeng i anne diés udges cocu esso occio **अध्य केवर्क स्टब्क् प्रसार** CONTRACTOR CONTRACTOR

ଙ୍କର୍ମିତଙ୍କ ପରିବାରକୁ ନଳକୃପ ମନା କଲେ ଗ୍ରମବାସା

ମଙ୍ଗଳବାର **୧୫ ସେପ୍ଟେମ୍ବର ୨୦୨୦** 

# ପାଣି ପାଇଁ ହଡସଡ କୋଭିଜ୍ ଯୋଦାଙ୍କ ପରିବାର

асоф,яже(бд): осоо фойоф аль доо ассаа од региз гдация чиски репеки инкир рийи ନରଣି, ଜ୍ଞୀ ବୃଷ୍ଟିରେ ୨୧୧ଖି ଖହଲେକ ନରିବା ଓ ସେମନଙ୍କ ମହେବେକୁ ඉගෙන ඉගෙන ඉති (මියෙන) brast යාගෙන ඉගෙීම ඉද ବଳପ୍ରକାଦ ଓ ମନମୁଖା କାର୍ଯ୍ୟ ସେଖି କରେନା ସଂକ୍ରମିକ ପ୍ରତିକର ଜଗଗଣ ଦେଉଥିବ ଦେଖରେଛି । ପରଜଙ୍କ ବୃକ୍ ମାଣିକମତା ପଞ୍ଚରତ ଜଳ ଗ୍ରମର ବରେ ବେଲିକ୍ ଯେଖକ ପରିବରକୁ ଗ୍ରମବରୀ ଏହେଉଲିଆ ବରି ଉଥ୍ୟକ୍ତି । ගෙන මින ලෙසු ගත දෙනකුවේ සම පුත්ත සහ ଫଳ୍ପିତ ହେଉଁତୁ ଯେହଳ ପରିବାର ହଳରେ ହେଉଛଁ । ସୂହକ ଅନୁପରୀ, त्राताया प्रायान । वैतन स्थान करन सक्षा करने निर्माण प्राप्ताचार дба бывся аскор ответу прою собо самого දෙන්න මෙමුමු 1 අදල දකු ඉදහළු පුලකු දෙනු ලෙනුම දෙනුන අඛ්යත්වල පතු අත්තරම ( කරු වලද අ සමු පළිත වලට මුණුවේ ගතු අත හැල. rs\* 6 අත පතිපතක අපදෙක්වා සරික්කයකි. යෙන්ම සමෙසේ සිත සහසන තෙව් සිත්වන ඉතින්න ଉପ୍ତଳ୍ପ । ଏପରିକ ବଳ୍ପପଣ୍ଡ ପଥି ଦେଳକୁ ।।ଏ ମମ କରିଥନ୍ତ । ଏପରିକ වර විවෙත අත අවෙත අවෙතු අත අත්ම අවෙතුම් අතු අතයා තම සත් දනවීල සහස අත්තර ඉලෙස දෙකෙම (අපදාස පද්ද ඉහස පුහඳ සෙසසාස මේලේ සෙ මේල්යයා, පළඹ ସ୍ଥର୍ଗ ପୂର୍ବରା ଦଶ୍ୟର ଅନୁକ୍ଷ ବେଲିକ୍ ସେଖନ ପରିଚାରକୁ ସମୟ ବର୍ଷ ସହରେଖ ବରିବକୁ କରି ପ୍ରଥମଣ ଅନ୍ତର ବର୍ଷ କରା ସମ୍ପର୍ଶ ସହରେଖ ପ୍ରକାଶ ସହରେଖ ବରିବଳ ବର୍ଷ ବର୍ଷ କରା ସମ୍ପର୍ଶ ସହରେଖ යාසයක පරිපතු සෙ මේජුක, පෙමද අතුරිගේ සරිප පහලාගල පස්වී පෙරුම ඉතුරු හමු 1 4 උපසා ඒකම පිරම ବରି ପରରେର ନିଅରିକ ବେଳି ଶ୍ରୀ ମଣ୍ଡିକ କବିଶ୍ରରେ ।

# ସିମିନଇ, ଗଦାଶିଳା, ଗୁରିଲୋ ହେଲା କୱେନମେଣ୍ ଜୋନ୍

coesse, ker (BB); coesse 9g; opsog ее пабо ФЛое че дойо длавая асио фево да дерегот пяко пио para usos ous ansueso uno socu casa ବର୍ଷରତି । ଏହି ସବ୍ ପ୍ରାଚନ କରେଲ ବଂଜ୍ଞାଣ ବ୍ୟାସର ମହାଯେ ବୃଦ୍ଧି ପରହି । ପ୍ରତାଣ ବହାମଶକୁ පුරිණ සරියද් ජන මිදුවන් දැවත ඉද රාදන ହେଉଟି ଶିଧରି ଉପବ୍ୟୟ ହେବ ସେଖର ବହନ୍ତି । ao e albaca ditoa centoa en oc en ro adaca acider ascong or ac acad Ch page dead cach cach dead day 40 посва ўзавей і еккім агенай адкахи ବର୍ତ୍ତର ପର୍ଯ୍ୟ ୧୪ ପର୍ଯ୍ୟ ସବଦ ୨ଫ ଠାରୁ ୧୬ ପରିଥ वहर १० वर्जन की १००० की १०३० है।

සම්ම කුතු තුනුගේ මනුතුකුම ( මේ කුළුකුනු аода авков обда дл. веодоада සහ, අතුමින, අත්වර් සහ අතුමන මහතෙර අපමණ සාස, සහසරහ පුතුර අත් ස්ථාන ss or mora awar, evenige-eithide ೧೯, ಇಗೆಲ್ಲ ರಹವಲ್ಲ ರಕ್ಷರಳಿ, ನಡಳಿಲ neiforen adia 46 ecentre cela रक्षाक्षा करायाच्ये । यद सामारक कक्षात्र रह्यो ବରଣିତ ବହିତ ବହିତ୍ୱରତକୁ ୧୪ ଦିନ ପର୍ଯ୍ୟକ අත පරිපත අතනේ රිකාපතම ( අප්රත් **२२वृद्धान वसाय वृद्धान छात् १० ००** वर्त्वत अंतुत्वरा दक्टक बैटार कर्न्यवर्त स्तर्ज cove no nos es este adve neces tise aco geor ecoo cosa ecicali

# ଶାଖା କେନାଲ ବନ୍ଧ ଭାଙ୍ଗିଲା



оппарав, име (ра): орого ор вадо офы очи абл ପର୍ଶ୍ୱରେ ଯୁକ ପ୍ରପତେକ୍ୱା ମୁଖ୍ୟ ନେବଲଣ୍ଡ କଳାଣି କଥନ୍ତପୁର ଯଉଥିବା ଶାଖ ଦେଖଳ ବଳ କଳି ଅନ୍ତର୍ଥ । ଅହା ଅବସେ ଅଧି ବଳପୁଣକୁ ଅନ ବଅଧି ଅଧ වසත සමර සඳවා සහල හෙද සහභාග ගසහ ප්‍රශ්න විජ විභ අවුජ ගලනෙනෙ සහ දිනය වෙන නොදැම ( සියුනෙසන обо ово ой соцью овине вбила обий и «В соор acia dás el estra es egga sour ce nord cos සහය එව සහස පරේ විද්ය වුවෙන් සහ සහ පරේ most 19200 CO WARRING GOOD DITION DRO GOOD QB OD

#### ବରିଷ ନାଗରିକ ପରିଷଦର ବୈଠକ

cociolo,esie(nig) ବେଳାହାତ ବଳିଷ ନାର୍ଜିକ 9090 9gg 6909 चवार्क वर्षक क्षेत्र कर **Conse usus** ечноворазия пофа coorde i drive code මහා ලකුල මේ පෙමුල සම писичения предеч 95000 1 849 56900 F s y side am east основи обячни выни ଦେବ ଅନ୍ତର ଜନନ ଏବଂ оорына оор офер COG DICEGO PORTUGO! square autors et dumo ng quo assa coops do Galanda and electo accessos moreo nde eligin i

# ଜଗନ୍ନାଥ କୋଇଲା ଖଣି ସମ୍ପ୍ରସାରଣ ପାଇଁ କେନ୍ଦ୍ରୀୟ ମଞ୍ଜରୀ

ଚଳଚଳର,ମନ୍ଧାନ(ଅନ୍ତ): ଏମ୍ଲିକର nazine tra cue tilleve s ବଙ୍କର ବିବାସ ପଥାପୁ । ମଧୁରେ ମିକିଲି । 46 BROKE BEEC SEV 699 seneys evan offen So (edda ness cars) ବର୍ଷ୍ୟ କରଥିବା । ଏହି ସଞ୍ଚର वर्ष कार्यन्ति शक्त वाम garço cool era on coop and one (edds) କୋଲି କଥାପଡ଼ିଆ ଅପରପଥରେ deals elee seen pergraps countil co i ඉහළුය මයි සමුක්ෂය ගත්



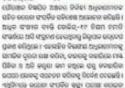
GOCOR NEGI RES COR ong e.s fiche ong që GIGRT GREY DENINGED ସମୟ ଦିଅମକ୍ ପ୍ରକଳ ସହିଲେ ତ୍ତିତ ମୟ ୯ ଉତିକ ଦିନ ଏହି ខេត្តពេលមួយ ពិធីពុល ១០៧ភូមិ។ ραγικ έπει εσίρει αθα coop so/ys pon on cops

EGGGG ESPECIAL ESPER-405005 odero erecon arise s/ A been on torine, ettario क्रशंक्ष्य हैं। कारक्यायक ей айц сише огрозог कार देह रक्षण्यका १ १०१६ वर्वदक्ष प्रमुख ग्रंबेश वदव මෙම ක්ෂුක්ෂය සහ ක්ෂුක්ෂය කිස ទេស៊ី ១១ភេទីនិ៖

#### 🖿 କରୋନା ସ୍ଥିତି ସମୀକ୍ଷା କଲେ ଜିଲ୍ଲାପାଳ 🖿

## କୋଭିଡ୍-୧୯ ନିୟମ ଉଲ୍ଲଘଂନ ହେଉଥିବାରୁ ଉଦ୍ବେଗ

(Dill)289,988900 compo delega оба ярую вванска addeang, beec gelas deus ad eddene co



ලේව වන් සිමුකල් දැගල්ට පම්පල් සුවල් ගෙරමේ (

ବମସ ସରଗଳା, ଦେଉତକଳା କର୍ଯ୍ୟକମସ୍ୱଦିକ ବିଶେଧକ оса сва боса улай 11-раяз обрюдо අපිරිසු යාලෙරීම (මුලුසුසුර් පිපසුල් ඉවරිල ବିକ୍ରପଳ ରହିବାଧାନ ସେଠା, ସହର ଉପନିକ୍ରପଳ ସଫଳ ово тыр, инврав сабоко берво ziesti, Pgi zipowero zigeni este cas ମଣ୍ଡ, ପର୍ଥର ବର୍ତ୍ତର ଅଧିକରୀ ଅବକୁ କୁମର ବନର, ( ශාල පුද්ගය හදුනු ලබ පාලික (සහස්ත

### 🖿 ଫର୍ଷିଚର୍ ଦୋକାନରୁ କାଠ ଓ ଯବ୍ଦାଶ ଜବତ ଘଟଣା 💳 💳

# ନିରପେକ୍ଷ ତଦନ୍ତ ଦାବିରେ ଡିଏଫ୍ଓଙ୍କ କାର୍ଯ୍ୟାଳୟ ଘେରାଉ

ଦେବାତାକ ସଦର ବୃକ ଅବର୍ଥର ବଣସଂବ ପ୍ରମାଫବାସନ କୁଉଁପୁର goen got de ceden \$500 PORTO POR CORDO egia esiaa eo s airi cong das pos para poo обей і чею бости оон egois dinoids econ тиность болен офефа SOCIOL SHOULD GIOL ସହରର ବଦଳ କଲ୍ଲୌବର ପ୍ରତିଶ୍ରୁଣି cabol cop divolat probat neSeq i

तुक्तवस्त, बूर्जवृत क्वस्त go pad ago agoag අතීවේ වෙන්වයට බව ම වැඩිස de se dea asq equ опапа віре параспо en a dag para ses



tene seps ingers Gel 664 priced noits appe and appear codece i cosipo aioca ରତ ରହିଥିବା ଏବଂ ବାରକପତ୍ର piscopi, odo a doo dis tiende too oo oos rates ଅଶିହି। ଜିଏଫ୍ଡକ୍ କାଲାତ වෙත දක්කතා සතික ජූව neledig spelid speed sandes coord and allog අදුල්ව විශ්රත අතර අතුල්ව per ages or does one ගත් මංගල සමගල සමගෙන riegeiss sessen до бо вре вдвоб вмор Поста оси сфей 0-сели priores erge des diese рово и водре да вово page cocoo caro conoo Sags of des ex

रच्छार व्यवधान युवन (CONTROL CONTROL псевод обасот водг como sin evano: 468 BIGGIS CUCIOCO COCOO ବରିଷ ବନ ଅଧିକରୀ ଚାକୁ ସ୍ୱରଷ रक्तवर्ष् - ५० रक्तकर वृत्तव ବର୍ଷବା ପର୍ଜ ଯେଥବା ବର୍ଷ୍ଣ । conocu epotione Dec to a property of a pop ध्य प्रकृतका क्षांत वटन कर्त don ede ne ee අේගනාග සහස සහ යනු eno eno abede eleg ඉඳදින අත්ම ජාත්කය වූමන් og celei, graq avag, cools stelled 0000 neisei gige gineisi nösze edeği

ତତ୍ତ୍ୱ ବର୍ଷିତା ପାଇଁ ଚିତ୍ରେଶ

# କାମରେ ଆସୁନି ଏଟିଏମ୍, ଲୋକେ ହଡସଡ

මුගේ, අතුල් (කලු ): මුගේ සඳුන්වී කිස්තෙක් පුත් විමිල් මෙනේ මේම්ල් ගුර්ම යෙනම නොකෙ පම්කුතුන්වී ( මම යටත් කර්මයක සෙනෙනා ନହିଁବଥିବା ଅଧ୍ୱଦିଧନ ସହାହେ ହେଲାଣି । କୃତତ ଏହାରଥି ଅଞ୍ଚଳରେ ଉତ୍କରଣ हबर कार, एक्ट कारता कार, कारत कार, उद्देव कार, युट ତାଙ୍କ, ଅତମିଅନ୍ତର୍ଜିପର ତାଙ୍କଳ କ୍ରତମ ପରିଥି । ତେତେ କରିବୀ ସୂହିକ δη αιτο πελι αφητρο εσειο ευμονε απέιου εταμιο ενα දෙවර දෙවර දෙවැන කිරීම ක්රීම කරු අතුර දෙවෙන වෙදයා වෙදයා ଦିବ୍ୟକ୍ ବିହ୍ରାଟ ଜ୍ଞାଦିନ ବାରଣକୁ ନେସିହ୍ନ ବର୍ଯ୍ୟଖନ ହେଲପାଣ୍ଡଳି । କୃତତ ଏହାର оказ след след оббаз среда города города открато свя විස්තිම් කර්ගල වැදිද්ග රෙදෙ වේණලද එක් ගත් එක විශ්ය සොක त्ववृक्षी। त्यदेवर्ते कवृत्र कात्रक तक्षकारः वया शक्यवर्ते रवत् වෙයම වෙයම්මු 1 අ වෙදි වශ්ද සමා ප්විතවත්ත් කිරුව පෙවසක ව свежни редо воейся на водне выне баси едед оф бызорное поске сомпосёт басых со соцоет ебаба бо послед рось раскор эсо Жу дооб э

#### ପ୍ରଧାନମଶୀଙ୍କ ଜନ୍ମ ସପ୍ତାହ ପାଳନ ଅବସରରେ ଚାରା ରୋପଣ

वद्यवर,१४१९(१४व्र): वुभवतना वद्याद स्तवाद वर्ष वद्यव वावव පදහස පහසු විශ්ව සහ සහ සහස සේලා පලමා contaŭ: coor so, nolimo ognaci alianca विस, करान, र्जन, सब्दायम, वास्ता, कारूबा छाउँ करने करा स्वायत Bad vera radiarba vera advada consider aces bad ува дыог доло побсыу длав осле ау, айд ବ୍ୟବନ୍ତ ଶହ, ସାଁ ସଭଗତି କ୍ୟ ସହ ଓ ହିଳେଥି କାମ ସମିକ୍ ଥିଲେ ।



## MAHANADI COALFIELDS LIMITED महानदी कोलफील्ड्स लिमिटेड ମହାନଦୀ କୋଲଫିଲୁସ ଲିମିଟେଡ଼

(A subsidiary of Coal India Limited)

Office of the Project Officer, Jagannath Colliery

Jagannath Area, PO:- Balanda, Dist:- Angul, Odisha-759116

Phone: - 06760-260212, 260458, 260321, email: jagannathcolliery@gmail.com An ISO 9001:2008 & 14001:2004 Certified Project

Ref.No. PO/JNC/Envt./2020/ 3823

Date: 15/09/2020 (Speed Post)

To The Dy. Director General of Forest(Central), Eastern Regional Office, Moef & CC, A/3, Chandrashekharpur Bhubaneswar, Odisha.-751016

Sub: - Intimation about Expansion of Jagannath Opencast Coal Mining Project from 6.0 MTPA to 7.5 MTPA with increase in mine lease area from 430.736 ha to 553.946 ha of M/s Mahanadi Coalfields Limited located in Angul District of Odisha- For Environmental Clearance-Reg.

Dear Sir,

I am delighted to inform you that the Jagannath Opencast Project of M/s Mahanadi Coalfields Limited has obtained the necessary Environment Clearance from Ministry of Environment, Forest and Climate Change (MoEF&CC) vide F. No. J-11015/177/2015-IA-II(M), Dated- 09-09-2020.

As per the conditions of the above mentioned Environment Clearance a copy of the same is attached herewith for your kind information.

Yours faithfully

Project Officer Jagannath OCP

- 1. General Manager (Envt. & Forest) MCL HQ, Burla.
- 2 .General Manager, Jagannath Area.
- 3. Area Environment Officer, Jagannath Area.
- 5. File



# MAHANADI COALFIELDS LIMITED महानदी कोलफील्ड्स लिमिटेड ମହାନଦୀ କୋଲଫିଲୁସ ଲିମିଟେଡ଼

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An ISO 9001:2008 & 14001:2004 Certified Project

Ref.No. PO/JNC/Envt./2020/ 3820

Date: 15/09/2020 (Speed Post)

To The Sarapanch Padmavatipur Gram Panchayat, Angul, Odisha.

Sub: - Intimation about Expansion of Jagannath Opencast Coal Mining Project from 6.0 MTPA to 7.5 MTPA with increase in mine lease area from 430.736 ha to 553.946 ha of M/s Mahanadi Coalfields Limited located in Angul District of Odisha- For Environmental Clearance-Reg.

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- 2. General Manager, Jagannath Area.
- 3. Area Environment Officer, Jagannath Area.
- 4. File





## MAHANADI COALFIELDS LIMITED महानदी कोलफील्ड्स तिमिटेड ମହାନଦୀ କୋଲଫିଲୁସ ୍ଲିମିଟେଡ୍

(A subsidiery of Coal India Limited)

Office of the Project Officer, Jagannath Colliery

Jagannath Area, PO:- Balanda, Dist:- Angul, Odisha-759116
Phone:- 06760-260212, 260458, 260321, email:-jagannathcolliery@gmail.com

An ISO 9001:2008 & 14001:2004 Certified Project

Ref.No. PO/JNC/Envt./2020/ 38 21

Date: 15/09/2020 (Speed Post)

To
The Sub collector,
Talcher,
Angul, Odisha.

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Project Officer Jagannath OCP

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- 2.General Manager, Jagannath Area.
- 3. Area Environment Officer, Jagannath Area.
- 4.File



# MAHANADI COALFIELDS LIMITED महानदी कोलफील्ड्स लिमिटेड ମହାନଦୀ କୋଲଫିଲୁସ ଲିମିଟେଡ଼

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Office of the Project Officer, Jagannath Colliery

Jagannath Area, PO:- Balanda, Dist:- Angul, Odisha-759116 Phone: - 06760-260212, 260458, 260321, email: jagannathcollier, Egmail com An ISO 9001:2008 & 14001:2004 Certified Project

Ref.No. PO/JNC/Envt./2020/ 3822

Date: 15/09/2020 (Speed Post)

To The District Collector, Angul, Odisha.

Sub: - Intimation about Expansion of Jagannath Opencast Coal Mining Project from 6.0 MTPA to 7.5 MTPA with increase in mine lease area from 430.736 ha to 553.946 ha of M/s Mahanadi Coalfields Limited located in Angul District of Odisha- For Environmental Clearance-Reg.

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Yours faithfully

Project Off Jagannath OCP

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- 2. General Manager, Jagannath Area.
- 3. Area Environment Officer, Jagannath Area.
- 4. File