

ମହାନଦୀ କୋଲ୍ ଫିଲ୍ଡସ୍ ଲିମିଟେଡ୍
महानदी कोलफील्डस लिमिटेड
Mahanadi Coalfields Limited
(A subsidiary of Coal India Limited)

OFFICE OF THE PROJECT OFFICER
BHUBANESWARI OCP, BHUBANESWARI AREA
PO:-DERA COLLIERY, DIST:ANGUL (ODISHA)
PIN:759103
Phone : (06760)-268409, 269844, FAX – (06760) 269527



Ref. No. PO/BBSRI-OCP/E&F/EC/Compliance/25-26/ ୧୦୪୬

Date: 30/11/2025

To

**The Director General of Forest (In-charge),
Ministry of Environment, forest and Climate Change
Eastern Regional Office, MoEF&CC
A/3, Chandrasekharapur, Bhubaneswar, Odisha-751016**

Sub: Submission of Six-Monthly Progress Report on the implementation of EC conditions imposed by MoEF&CC, New Delhi (Six Month ending September'2025) in respect of Bhubaneswari OCP of M/s. Mahanadi Coalfields Limited- Reg.

Ref: 1. EC vide No J-11015/280/2013-IA. II (M) pt. Dtd.23.06.2025
2. EC vide No. J-11015/280/2013-IA. II (M) pt. Dtd.10.11.2023.

Dear Sir,

Please find enclosed herewith the Six-Monthly Progress Report on the implementation of EC conditions imposed by MoEF&CC, New Delhi (Six Month ending September'2025) in respect of Bhubaneswari OCP, M/s. Mahanadi Coalfields Limited for your kind perusal.

Soft copy of the above report is also being sent to email id: roez.bsr-mef@nic.in

This is for your kind information

Yours faithfully

[Signature]
GM (Min)/Project Officer

Bhubaneswari OCP

Project Officer
Bhubaneswari OCP

Enclosure: As above

Copy for kind information to:

1. The Addl. Director (S), Env't. Monitoring Cell, MoEF&CC, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-1 10003.
2. The Member Secretary (OSPCB), A/118, Nilakantha Nagar, Bhubaneswar.
3. The Regional Officer (OSPCB), S-3/3, Hakimpada, Industrial Estate, Angul- 759143.

Copy to:

1. The General Manager, Bhubaneswari Area.
2. The General Manager (E&F), MCL HQ.
3. The Staff Officer(E&F), Bhubaneswari Area.
4. The Colliery Manager, Bhubaneswari OCP.
5. The Project Env't Officer, Bhubaneswari OCP.
6. File.

SIX MONTHLY PROGRESS REPORTS
ON
THE IMPLEMENTATION OF
ENVIRONMENTAL CLEARANCE
CONDITIONS IMPOSED BY MoEF&CC,
NEW DELHI.

Six monthly ending September'25



BHUBANESWARI OCP
BHUBANESWARI AREA

MAHANADI COLAFIELDS LIMITED

MAHANADI COALFIELDS LIMITED
NAME OF THE PROJECT: BHUBANESWARI OCP, BHUBANESWARI AREA.
No. & Date of MOEF clearance letter: J-11015/280/2013-IA. II (M) pt. Dtd.23.06.2025

SIX MONTHLY PROGRESS REPORTS ON THE IMPLEMENTATION OF ENVIRONMENTAL CLEARANCE CONDITIONS IMPOSED
BY MoEF&CC
(SIX MONTHS ENDING WITH SEPTEMBER - 2025)

Sl.no		
i.	Mining shall be restricted to only 658.724 Ha, against the land of 688.45 Ha in possession of the project proponent. Project proponent shall erect the closely spaced pillars to clearly demarcate the remaining land of 29.726 Ha comprising of tenancy and govt. non forestland. All officers, supervisors, overman, mate, workers, operators, persons employed in the mine should be made aware about the 29.726 Ha land and its boundaries so that there is no disturbance on the same. In addition to this, the surface plans, production plans used in the project, the utilized and un-utilized area should be clearly marked in different colours.	Complied. Mining operations are restricted to 658.724 Ha as per EC stipulation, against the total 688.45 Ha land held by the project proponent. Permanent, closely spaced pillars have been erected to demarcate the boundary of the remaining 29.726 Ha of tenancy and government non-forest land, with detailed awareness programs conducted for all mine personnel, including officers, supervisors, workers, and operators, to ensure no disturbance occurs to this area. All operational and production plans, including surface plans, are updated to clearly mark utilized and un-utilized areas with distinct colours for easy identification and monitoring.
ii.	The forestland of 20.383 Ha on which stage – I forest clearance has been accorded shall not be disturbed until the stage – II forest clearance is accorded for the same as per the provisions of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.	Agreed and Complied. Stage-II forest clearance of 20.383 Ha Forestland has now been accorded as per the provisions of Van,1980 vide letter no. 8-18/2002-FC(vol) I/113241/2025 dated 30-05-2025, and mining activities will be undertaken only as per the conditions stipulated in the Stage-II approval.
iii.	Project proponent shall comply with the previous EC conditions as per the Action Taken Report and the observations of the Sub – Committee Site Visit Report, as per the following action plan, as committed:	Being Complied. The proponent remains committed to the effective implementation of all previous Environmental Clearance conditions as detailed in the Action Taken Report and the Sub-Committee Site Visit Report as per below:

S. No.	Issue	Compliance	Timelines	Proposed Budget (in lakhs)
1	PP shall provide the unpaved road to paved one in order to reduce the emission fugitive dust.	The haul roads are temporary, and their locations change based on the availability of exposed coal faces and the progress of mining activities. In practical implementation, the project utilises murrum/crushed OB materials on unpaved haul roads, complemented by water sprinkling, as an effective measure to prevent fugitive dust emissions. This process results in a firm surface that safeguards the underlying soil from the impact of vehicle wheels. Apart from the above, all the permanent routes dedicated for coal transportation towards the sidings	Dec'2025	110.00

S. No.	Issue	Updated Compliance	Remarks
1	PP shall provide the unpaved road to paved one in order to reduce the emission fugitive dust.	Being Complied as per Timeline.	Dec'2025
2	PP to provide bio toilet to the villages located within the study areas within 1 year from the grant of this EC.	Complied. All Six Bio toilets are distributed to nearby villages namely Dera, Khandal, Anadipur, Hensmul, Ragunathpur, and Khammar.	Nov'2025
3	PP to enhance plantation in mine lease in conformity to the scheduled plan submitted in EIA EMP & ATR to certified	Being Complied as per Timeline	In 5 yrs considering the base year 2025-26 (incl post closure phase of 3 years)

			<p>OB dump area, plantation along approach roads/transportation roads and green belt development up to March'2025 within mine lease hold area. The total green cover area at the time of mine closure shall be 375.499 ha 3 tier green belt comprising, mix of native species shall be developed along the major approach roads, infrastructure, embankment` etc. in an area of 36.011 ha.</p>			
6	Additional three number of CAAQMS shall be installed at places where the PM10/PM2.5 values of	As per the directives of EAC subcommittee two additional CAAQMS stations (in addition to the existing 2 nos. at Bhubaneswari OC, namely, at BCML w/s and Gobra Village) have	Dec'2025	300		

		<p>baseline data exceeds the values of Annual average concentration limits. The budget provision for the same is needed</p>	<p>been proposed considering the baseline value and site-specific meteorology of that area. Thus total no. of 4 (four) CAAQMS stations will record the ambient air quality of Bhubaneswari Project.</p>			
	7	<p>The dedicated corridor for coal transportations needs repair. The road condition is not satisfactory. The provision of budget shall be made for the same</p>	<p>A dedicated coal corridor for road transportation of coal, of 22 km which does not pass through any village has been constructed in Talcher coal field connecting all MCL mines of Talcher CF. Out of this 22 km, 1.82 km CT road falls within the jurisdiction of this project. This dedicated road is regularly repaired for regular pothole patching, crack sealing, resurfacing, and in</p>	<p>Routine work and will be carried out throughout the life of the mine</p>	1000	

			some cases, reconstruction is also done. It is also maintained for dust free transportation of coal, by using mechanical road sweepers and mobile fog cannons (40 m throw).			
	8	From energy conservation point of view, PP shall make adequate budgetary provision for solar energy	A total of 71.25 Kw Solar installations in the form of roof top panels, movable lighting towers and streetlights is envisaged to be installed by FY 2026-27.	Mar'2027		
iv.	Project proponent shall deposit the approved financial outlay of Rs. 1525.14 Lakhs with the State Forest Department, as per the approved Site Specific Wildlife Conservation Plan. Accordingly, the Site specific wildlife conservation plan shall be implemented.					<p>Complied.</p> <p>The project proponent has deposited the approved financial outlay of Rs. 15,25,14,000.00 (Rupees fifteen crore twenty-five lakh fourteen thousand only) with the State Forest Department, as mandated under the approved Site Specific Wildlife Conservation Plan. This amount was credited on 26-03-2025 via transaction ICICR22025032608530239 to the account ORRISA CAMPA 1508258155017012. The project proponent is committed to implementation of the approved Site Specific Wildlife Conservation Plan.</p>
v.	No OB dumping shall be done outside the mine lease area.					Complied.

		No Overburden (OB) dumping is being done outside the mine lease area.						
vi.	Project proponent shall transport only 4 MTPA of coal through road, that too till December 2025. Remaining 26 MTPA of coal shall be transported through the combination of pipe conveyor and railway, till December 2025. Thereafter, only 3 MTPA of coal is allowed to transport by road, remaining 27 MTPA of coal shall be transported by the combination of pipe conveyor and railway.	<p>Complied. The project proponent is restricting coal transportation to 4 MTPA by road only until December 2025, with the balance 26 MTPA transported through a combination of pipe conveyor and railway. From January 2026 onwards, road transportation shall be further limited to 3 MTPA, with the remaining 27 MTPA coal being dispatched through pipe conveyor and rail systems, in compliance with regulatory requirements.</p> <p style="text-align: center;">Coal Offtake from Apr'25 to Sep'25</p> <table border="1"> <thead> <tr> <th>Coal Take by Rail</th> <th>Coal Off Take by Road Sale</th> <th>Total Coal Production (Te)</th> </tr> </thead> <tbody> <tr> <td>12.21 MT (88.39%)</td> <td>1.5 MT (11.56%)</td> <td>13.81 MT</td> </tr> </tbody> </table>	Coal Take by Rail	Coal Off Take by Road Sale	Total Coal Production (Te)	12.21 MT (88.39%)	1.5 MT (11.56%)	13.81 MT
Coal Take by Rail	Coal Off Take by Road Sale	Total Coal Production (Te)						
12.21 MT (88.39%)	1.5 MT (11.56%)	13.81 MT						
vii.	Road transportation of coal shall be done with all the precautionary measures. Coal shall be transported through tarpaulin covered trucks, regular water sprinkling shall be done on the coal transportation road, regular maintenance of the trucks/ tippers shall be carried out, regular maintenance of the dust suppression machinery shall be carried out.	<p>Complied. Road transportation of coal is being carried out with all necessary precautionary measures, including the use of tarpaulin-covered trucks to prevent spillage. Regular water sprinkling on the coal transportation roads is being implemented to control dust emissions. Additionally, routine maintenance of trucks and dust suppression machinery is being ensured to maintain their optimal functioning and minimize environmental impact.</p>						
viii.	Project proponent shall carryout regular maintenance of the potholes on roads, repair and maintenance of roads, scrapping of material fallen on roads, and removal of scraps from mining areas. Along with this, PP shall make sure that all the pollution control equipments are in good working condition and maintenance of those equipments is regularly carried out.	<p>Complied. A dedicated coal corridor for road transportation of coal, of 22 km which does not pass through any village has been constructed in Talcher coal field connecting all MCL mines of Talcher CF. Out of this 22 km, 1.82 km CT road falls within the jurisdiction of this project. This dedicated road is regularly repaired for regular pothole patching, crack sealing, resurfacing, and in some cases, reconstruction is also done. It is also maintained for dust free transportation of coal, by</p>						

using mechanical road sweepers and mobile fog cannons (40 m throw).

Mitigative measures to control dust and other fugitive emissions are detailed below:

1. 02 no. of truck mounted fog cannon with up to 40 mtr spray length is deployed for coal transportation road & coal corridor, mine face etc.
2. 16 nos. of mobile water sprinklers having capacity ranging from 12 to 28 KL are in operation for dust control.
3. 02 nos. of Volvo 28 KL capacity with mist sprinklers system are in operation.
4. 01 nos. Mechanical Road sweeper.
5. 10 nos. of fixed sprinklers are provided at railway sidings.
6. 10 nos. of trolley mounted fog cannons with 100 mtr spray are provided
7. 02 nos. instant shower systems are provided at the exit point of the quarry.
8. Closed Pipe Conveyor with SILO System (25 MTY) for coal transportation to sidings.
9. Wind Barrier beside Coal stocks 9 and 10.
10. Wheel washing system installed at the exit of the mine.
11. The Ambient Air Quality parameters are within the prescribed norms. A dedicated coal transportation corridor of 20.99 Km length (1.82 Km in Bhubaneswari OCP) has been constructed bypassing the residential areas and other habitation.
12. 03 nos. of underpasses have been constructed on the coal corridor to avoid crossing of public road, thereby improving ambient air quality, congestion and safety.
13. 100% coal production is done through Environment friendly Surface Miners.

		<p>14. More than 85% coal dispatch is done through eco friendly rail mode.</p> <p>15. Trucks & vehicles used for transportation of coal outside the mine area are covered with tarpaulin</p> <p>4 No's of fog cannons, 2 Nos of Truck Mounted Fog Cannon and 25 No's fixed-type sprinklers are in the procurement stage across the mine lease area to arrest the dust coming out from the mining activities</p>
ix.	<p>Project proponent shall install 3 nos of mobile fog canons on the school roads in the vicinity of the ML area and dense plantation with the native species shall be carried out along the periphery of these schools. Project proponent shall also introduce measures for watering of the plantation developed in the periphery of the schools.</p>	<p>Being Complied.</p> <p>One no of Mobile Fog cannon is already working in the vicinity of School Road and the tendering process for the procurement of Two mobile fog cannons has been initiated.</p> <p>Dense plantation with native species along the periphery of Schools and Villages of Hensmul-280 nos, Sisumandir Dera-100 nos and Khandhal-100 nos of Saplings has been done, and watering measures are being implemented to maintain the plantations and enhance dust suppression around the schools.</p>
x.	<p>Project proponent shall not divert any river, nallah or any other water body for carrying out the mining operations in the said mine.</p>	<p>Complied.</p> <p>The project proponent confirms that no diversion of any river, nallah, or other water body has been undertaken for mining operations within the lease area.</p>
xi.	<p>The budget proposed for Public Hearing and Public Consultation through written representations (for next 3 years) is Rs. 244.795 Lakhs. The budget proposed shall be kept in a separate account. Project proponent shall implement the action plan to address the issues raised during public hearing within the stipulated time frame. PP shall submit the progress report regarding the implementation of action plan to concerned RO along with the six monthly compliance report. PP shall strengthen the existing Primary Health Centre (PHC) & Community Health Centre (CHC) in the study area for better public health. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office of MoEF&CC.</p>	<p>Being Complied.</p> <p>The project proponent does not maintain a separate account for the Public Hearing budget; however, separate heads are maintained to accurately track the related expenses. The detailed action plan addressing the issues raised during the Public Hearing is attached.</p> <p>Regarding the Primary Health Centre (PHC) and Community Health Centre (CHC), MCL has constructed and dedicated to the Odisha state Govt a multi-specialty hospital named as Pabitra Mohan Pradhan Government Hospital (PMPGH) for surrounding villages of Angul district as a part of CSR initiative. Additionally, Medical</p>

		<p>camps have been conducted in nearby local villages. Free medical treatment to all patients was being carried out at MCL, and the compliance status is being regularly reported in six-monthly submissions to the concerned Regional Office of MoEF&CC.</p>
xii.	<p>Project proponent shall implement the protective measure proposed in Environment Management Plan (EMP) in a time-bound manner. The budget earmarked for the same is Rs. 300 lakhs (Capital) and Rs 841 lakhs (recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year.</p>	<p>Being Complied. It is being implemented and the protective measures outlined in the Environment Management Plan (EMP) in a time-bound manner. Although separate accounts are not maintained, separate heads are kept tracking the capital budget of Rs. 300 lakhs and recurring budget of Rs. 841 lakhs earmarked for these activities.</p> <p>The implementation status, along with expenditure details and documentary proof, will be submitted annually.</p>
xiii.	<p>R&R for the 1097 Project Affected Families (PAFs) for the said project including the 1242 (Project Displaced Families) PDFs should be rehabilitated as per the approved R&R plan. Compliance status in this regard shall be submitted to the concerned Regional Office of MOEF&CC along with the six monthly compliance report.</p>	<p>Being Complied. The project proponent is pursuing the Rehabilitation and Resettlement (R&R) process for the 1097 Project Affected Families (PAFs), including the 1242 Project Displaced Families (PDFs), as per the approved R&R plan. The implementation is currently in progress, and compliance status along with detailed progress reports are will be submitted to the concerned Regional Office of MoEF&CC.</p>
xiv.	<p>Project proponent has developed the existing green belt/cover in 40.793 ha area which is about 6.19% of the total ML area of 658.724 ha with total sapling of 82050. Proposed green belt/cover shall be developed in 334.706 ha which is about 50.81 % of the total ML area. Thus, total of 375.499 ha area (57.00% of total ML area) shall be developed as greenbelt. A 7.5 m wide greenbelt, consisting of at least 3 tiers around mine boundary shall be developed as greenbelt/ cover as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species shall be planted with a density of 2500 trees per hectare. Total no. of 917891 saplings shall be planted and nurtured in 375.499 hectares in 05 years (balance life of mine + Post closure period 3 years). Following time bound action plan for plantation shall be implemented:</p>	<p>Being Complied An area of 30 ha of planted and biologically reclaimed land over internal OB dump, green belt for FY 25-26, along with the previous 25 Ha resulting a total 55 Ha and additionally 50 Ha Plantation by DFO, Angul at Gurjang under Range Officer Talcher.</p>

xv.	<p>PP shall carry out a survey of the impact of blasting in the nearby area/villages by involving a reputed institute and take remedial measures as proposed by the respective institute. Further, provide compensation if any for any damage caused. PP must give crop compensation to the farmers in case there is decrease in the production due to the mining activities. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office.</p>	<p>Complied. A survey on the impact of blasting in nearby areas and villages by involving a reputed institute M/s CMPDIL has been conducted. Remedial measures recommended by the institute are being implemented. Compensation for any damage caused or decrease in the crop production will be provided if any. Compliance status along with progress reports is submitted regularly to the concerned Regional Office in six-monthly compliance reports attached as Annex-XV</p>												
xvi.	<p>PP shall create a “Public Grievance Redressal and Monitoring System” for resolving any issues related to the pollution of mines and complaint has to resolve as soon as possible not beyond 30 days. In this regard, adequate awareness to be spread among the public to address their grievance to company with simple and easy manner and for which company needs to devise the mechanism. The same shall be reported to IRO within 3 months. A logbook to be maintained by PP on “Public Grievance Redressal and Monitoring System.”</p>	<p>Complied. “Public Grievance Redressal and Monitoring System” have been set up at Area level and Project level for resolving any issues related to the pollution of mines also adequate steps have been taken to spread awareness among the public to address their grievances to company. Also, a logbook is being maintained at the project level. Apart from this, provision is made in MCL website for lodging grievance through Centralized Public Grievance Redress and Monitoring System</p> <p>Details on the Public Redressal and Monitoring system</p> <table border="1" data-bbox="1294 935 1980 1382"> <tr> <td>Head</td> <td>Area Personnel Officer</td> <td>Sri Sukdev Seth General Manager (Per) -</td> </tr> <tr> <td>Member</td> <td>Project Personnel Officer</td> <td>S S DAS Manager Personal</td> </tr> <tr> <td>Sub Head</td> <td>Personnel Officer</td> <td>Sri Debankita Debnath Dy Manager</td> </tr> <tr> <td>Member</td> <td>Personnel Officer</td> <td>A Panda Asst Manager Personal</td> </tr> </table>	Head	Area Personnel Officer	Sri Sukdev Seth General Manager (Per) -	Member	Project Personnel Officer	S S DAS Manager Personal	Sub Head	Personnel Officer	Sri Debankita Debnath Dy Manager	Member	Personnel Officer	A Panda Asst Manager Personal
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xvii.	<p>PP shall emphasize for using and developing Renewable Energy for its consumption in its utilities/machinery/equipment instead of using electricity from Grid/generated from Thermal Power Plants. PP shall install solar power generation units. Compliance status in this regard shall be submitted to the concerned Regional Office along with the six monthly compliance report and also be uploaded on the web portal of the company.</p>	<p>Complied Solar power installations have been made at the following locations:</p> <ul style="list-style-type: none"> • 6 KW solar panels were installed as mobile lighting towers to reduce energy and fuel consumption • 50 KW solar power unit at Bhubaneswari PO Office • 15 KW solar power unit at Bhubaneswari Area Office • 40 KW solar power unit at Bhubaneswari Transit Office • All lights are replaced with LED lights in the mine and 10 Nos EV Powered 33 Cum trucks & 7 Nos of 5 Cum Front end loader were engaged as a part of test run.
xviii.	<p>Project proponent shall ensure that all types of plastic waste generated from the plant shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016 (as amended). In pursuant to the Ministry's OM dated 18/07/2022. PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) in order to ensure compliance of Ministry's Notification published by the Ministry on 12/08/2021. A report along with photograph on the measures taken shall also be included in the six monthly compliance report being submitted by PP.</p>	<p>Complied All types of plastic waste generated from the plant shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016. Awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) has been conducted by Wall Painting in Near by Schools and Panchayat Offices. Details with photographs on the measures taken are attached in Annex-XVIII</p>
xix.	<p>Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent. The implementation report of the above-mentioned conditions shall be sent to the Regional Office of the MoEF&CC.</p>	<p>Assured to Comply Condition is related to Post closure activity.</p>

xx.	Third-party audit (by NEERI/CIMFR/IIT/NITs) for air & water quality shall be carried out annually to keep a check on the same. PP shall implement the recommendations of the audit and submit the outcome of the audit to the concerned RO of MoEF&CC.	Being Complied The project proponent has awarded the third-party audit work for air and water quality to IIT Bhubaneswar. The project proponent commits to implementing the recommendations arising from the audit and will submit the audit outcomes to the concerned Regional Office of MoEF&CC
xxi.	PP should continue the Carbon Sequestration Study including carbon emissions from coal mining. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.	Being Complied The project proponent has awarded the Carbon Sequestration Study to M/s CMPDI, focusing on carbon emissions from coal mining activities. The compliance status and the outcome of this study will be submitted to the concerned Regional Office of MoEF&CC upon completion and will also be uploaded on the company's web portal.
xxii.	Project proponent is advised to implement the 'Ek Ped Maa Ke Naam' Campaign which was launched on 5th June 2024 on the occasion of the World Environment Day to increase the forest cover across the Country. This plantation drive is other than Green belt development. The action in this regard shall be submitted concerned RO in six monthly report.	The project proponent has conducted the 'Ek Ped Maa Ke Naam' campaign, a nationwide tree plantation initiative launched on World Environment Day, 5th June 2024, by Prime Minister Narendra Modi. The compliance status regarding this campaign will be updated and submitted in the six-monthly reports to the concerned Regional Office as required. Details are being attached in Annex-XXII
1. Statutory Conditions:		
i.	The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project.	Agreed, Assured to Comply
ii.	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not Applicable.
iii.	Solid/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.	Agreed, Complied. Project proponent has obtained Hazard waste Authorization as per Hazardous & Other Waste Management Rules, 2016. vide IND-IV-HW-566/6834 -Dt.31/03/2025
iv	The maximum production at any given time shall not exceed the limit as prescribed in the EC.	Agreed, Assured to Comply.

v	Validity of EC is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification, 2006 and its amendments therein.	Agreed, Assured to Comply.
2. Air Quality Monitoring and Mitigation Measures		
i.	Project proponent shall obtain requisite consent from State Pollution Control Board for amalgamated mine with a production capacity of 30 MTPA.	Agreed, Assured to Comply.
ii.	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board.	Being complied. 02 No. continuous ambient air quality monitoring stations in the core and buffer zone of mine have been installed. The stations locations have been fixed in consultation with SPCB. Data is also being displayed digitally for the information of general public and data is also being linked to the website of SPCB/CPCB. One more CAAQMS is in installation stage at Gobra Village. Data is also being displayed digitally and data has to be linked to the website of SPCB/CPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to is being carried out once in every six months.
iii.	The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th 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.	Being complied. Four nos. of Ambient air quality monitoring stations have been jointly decided and established in the core zone as well as in buffer zone in consultation with the State Pollution Control Board and the monitoring is being carried out fortnightly for SPM, PM ₁₀ , PM _{2.5} , SO ₂ , and NO _x . Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr etc carried out at six monthly intervals.
iv	Effective control measures such as regular water sprinkling/rain gun/ Fog cannon /mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.	Being complied. To effectively control and minimize dust and maintain ambient air quality within prescribed norms, a comprehensive set of dust suppression and pollution control measures are adopted throughout the mining area, transport roads, and coal handling points. These measures ensure compliance with Central and State Pollution Control Board regulations and help mitigate environmental impacts from mining operations.

Mitigative measures to control dust and other fugitive emissions are detailed below:

1. 02 no. of truck mounted fog cannon with up to 40 mtr spray length is deployed for coal transportation road & coal corridor, mine face etc.
2. 16 nos. of mobile water sprinklers having capacity ranging from 12 to 28 KL are in operation for dust control.
3. 02 nos. of Volvo 28 KL capacity with mist sprinklers system are in operation.
4. 01 nos. Mechanical Road sweeper.
5. 10 nos. of fixed sprinklers are provided at railway sidings.
6. 10 nos. of trolley mounted fog cannons with 100 mtr spray are provided
7. 02 nos. instant shower systems are provided at the exit point of the quarry.
8. Closed Pipe Conveyor with SILO System (25 MTY) for coal transportation to sidings.
9. Wind Barrier beside Coal stocks 9 and 10.
10. Wheel washing system installed at the exit of the mine.
11. The Ambient Air Quality parameters are within the prescribed norms. A dedicated coal transportation corridor of 20.99 Km length (1.82 Km in Bhubaneswari OCP) has been constructed bypassing the residential areas and other habitation.
12. 03 nos. of underpasses have been constructed on the coal corridor to avoid crossing of public road, thereby improving ambient air quality, congestion and safety.
13. 100% coal production is done through Environment friendly Surface Miners.
14. More than 85% coal dispatch is done through eco friendly rail mode.

		<p>15. Trucks & vehicles used for transportation of coal outside the mine area are covered with tarpaulin</p> <p>4 No's of fog cannons, 2 Nos of Truck Mounted Fog Cannon and 25 No's fixed-type sprinklers are in the procurement stage across the mine lease area to arrest the dust coming out from the mining activities</p>
v	Major approach roads shall be black topped and properly maintained.	<p>Being complied. Major approach roads are being properly maintained and black-topped to ensure safe and efficient transportation.</p>
vi.	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.	<p>Being complied. All the vehicles plying in the mine premises carries valid PUC certificate issued by authorized pollution testing center and is renewed on six monthly basis.</p>
vii.	PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.	<p>Being complied. The project proponent has installed a Vertical Greenery barrier of 800 meters along the railway siding. Additionally, installation of a wind breaker/shield arrangement along the railway siding to reduce dust propagation in the upwind direction is planned and will be implemented to further enhance dust control measures.</p>
viii.	The raw coal shall be stacked properly at earmarked site(s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.	<p>Being complied. Currently an Vertical Greenery barrier along the railway siding and Coal Stockyards which acts as an effective dust control measure. While we do not yet have wind barriers installed, we are committed to implementing wind breaker/shield arrangements soon to further reduce dust propagation in the upwind direction. Adequate measures are being taken to ensure that the stored mineral does not catch fire.</p>
ix.	PP shall submit an action plan for using and developing Renewable Energy for its consumption in its utilities/machinery/equipment instead	<p>Complied. The project proponent is actively promoting the use and development of renewable energy to reduce dependency on grid electricity and</p>

	of using electricity from Grid/generated from Thermal Power Plants. PP shall install additional solar power generation units.	thermal power generation. Currently, solar power installations have been made at the following locations: <ul style="list-style-type: none"> • 50 KW solar power unit at Bhubaneswari PO Office • 15 KW solar power unit at Bhubaneswari Area Office • 40 KW solar power unit at Bhubaneswari Transit Office Additional solar installations are underway and in the tendering stage. Compliance on renewable energy usage is regularly reported to the concerned Regional Office through six-monthly compliance reports.
x.	PP shall install the weather monitoring system along with two CAAQMS shall be installed in which all the parameters like PM ₁₀ , PM _{2.5} , SO ₂ , NO _x shall be monitored.	Complied. The project proponent has installed two continuous ambient air quality monitoring stations (CAAQMS) in core and buffer zones of the mine. These stations monitor critical parameters including PM ₁₀ , PM _{2.5} , SO ₂ , and NO _x . Weather monitoring system has been integrated to support monitoring.
3. Water Quality Monitoring and Mitigation Measures		
i.	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.	Being complied. The effluents are generated at the workshop and they are treated in the Effluent Treatment Plant (ETP). The treated effluents are monitored for its quality as per the terms of the parameters notified under the Water Act, 1974, Coal Industry Standards vide GSR 742 (E) dated 25th September 2000.
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-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.	Being complied. The monitoring data is being uploaded on the company's website (https://www.mahanadicoal.in/Environment/eenvironment.php) and is being displayed at the project office.
iii.	The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching	Being complied. The mining operation has ensured that no major water channels around the site are altered. Appropriate embankments will be constructed along the sides of rivers and nallahs near or adjacent to the mine. These embankments will be of suitable dimensions, with

	on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.	critical patches reinforced by stone pitching on the riverfront side and stabilized through plantation to withstand peak water pressure, thereby effectively preventing any chance of mine inundation.
iv	Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff.	<p>Being complied. Catch drains of dimension 2m*2m*2200m have been provided around the external dump with 02nos. of siltation ponds of capacity 90×25×3 m³ and 80×60×3 m³.</p> <p>Catch drains around mine (7km×1.5m×1m) have been provided. Catch drain has been provided around coal stock. The water is channelized to mine sump. Retaining walls at toe of OB dump are provided wherever required. Catch drains are de-silted and regularly cleaned before monsoon.</p> <p>03 nos. of mine sump act as a huge rainwater harvesting structure</p> <ol style="list-style-type: none"> 1. North side sump: 2247000 m³ 2. South side sump: 2310000 m³ 3. Northwest sump: 1795500 m³. <p>Water from the sump after settling is being re-used for firefighting, dust suppression and watering of plants etc.</p>
v	The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly before monsoon and maintained properly.	<p>Being complied. Mine is zero discharge mine and no water is pumped out of the mine. All the water generated during monsoon, is collected in 03 no. of mine sumps having capacity of 6.2 Mm³ which acts as a reservoir cum recharge structures and the water from the sump after settling is being re-used for firefighting, dust suppression and watering of plants etc.</p>
vi.	Industrial wastewater from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards	Being complied.

	<p>prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant (STP) of adequate capacity shall be installed for treatment of domestic wastewater.</p>	<p>There is no CHP in the mining project. The only source of effluents is from the Workshop located in the project. The effluents from Workshop are treated in the ETP.</p> <p>The ETP (400 m³/hr.) is equipped with oil & grease trap along with mechanical oil skimmer has been provided for treatment of wastewater at workshop. The water is re-circulated and reused for industrial purposes. There is no STP in the project as they do not have a colony. Treated effluent is being monitored and the values are within permissible limits.</p> <p>Zero discharge of treated effluent is being implemented at workshop.</p>
vii.	<p>An integrated surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/GoI 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.</p>	<p>Being complied.</p> <p>An integrated surface drainage and water conservation plan for the mining area and its zone of influence will be prepared, with consideration for the presence of nearby rivers, rivulets, ponds, or lakes and the impacts of mining activity on these water bodies. Embankment construction to prevent inrush of surface water into the mine will be executed as specified in the approved mining plan and as permitted by DGMS, ensuring robust and compliant protection measures.</p>
viii.	<p>The project proponent shall take all precautionary measures to ensure reverian/riparian ecosystem in and around the coal mine upto a distance of 5 km. A reverian/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation/water resource department in the state government.</p>	<p>Being complied.</p> <p>Reverian/riparian ecosystem conservation and management plan has been prepared and approved with the irrigation/water resource department in the state government, will be implemented in consultation with Irrigation/water resource department. Annex-VIII</p>

ix.	Industrial effluent and domestic wastewater shall be treated in the Effluent treatment Plant (ETP) and Sewage Treatment Plant (STP). After treatment, treated water shall be reused for plantation.	<p>Being complied. There is no STP in the project as they do not have a colony. The only source of effluents is from the Workshop located in the project. The effluents from Workshop are treated in the ETP.</p> <p>The ETP (400 m³/hr.) is equipped with oil & grease trap along with mechanical oil skimmer has been provided for treatment of wastewater at workshop. The water is re-circulated and reused for industrial purposes. Treated effluent is being monitored and the values are within permissible limits. Zero discharge of treated effluent is being implemented at workshop.</p>
4. Noise and Vibration Monitoring and Prevention		
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.	<p>Being complied. The noise levels are within the prescribed limits. Workers engaged in blasting and drilling operations, operations of HEMM etc are provided with PPEs like ear plugs/ muffs. Awareness among the workers with training & displaying of posters and signboards at workplaces etc.</p>
ii.	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.	<p>Being complied. Noise level survey is being carried out as per the guidelines by NABL certified laboratory at all vulnerable points in the mine and report is being submitted on six monthly basis. Values are within the permissible limits. (Annex-II)</p>
5. Mining Plan		
i.	Project proponent shall obtain star rating as per the guidelines of Ministry of Coal.	<p>Complied. The project proponent has achieved a prestigious 5 Star rating for the year 2023-24 as per the Ministry of Coal's Star Rating Policy. The project proponent remains committed to maintaining and improving</p>

		this rating through continued adherence to sustainable mining practices and regulatory compliance.
ii.	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.	Assured to comply. All the Mines Act 1952 and its legislations made there-under are strictly carried out by the mine authority.
iii.	No change in mining method, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).	Assured to comply. No mining will be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.
iv.	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).	Assured to comply. Mining is being carried out as per approved mining plan and abiding by relevant laws related to coal mining and the circulars issued by DGMS. Approved mine closure plan is Complied and submitted.
v.	Environmental conditions of mining place shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.	Complied. The environmental conditions at the mining site are maintained to be ergonomic and air breathable with adequate illumination, strictly conforming to the standards set forth by the Directorate General of Mines Safety (DGMS). Compliance with DGMS guidelines ensures a safe and healthy working atmosphere for all personnel operating within the mine.
6. Land Reclamation		
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 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEF&CC) from time to time shall be submitted to MOEF&CC/Regional Office (RO).	Being complied. Digital processing of entire lease area using remote sensing technique is being carried out on once in three yearly basis for monitoring land use pattern and the report is regularly submitted to Regional office MoEF&CC, Bhubaneswar. Copy of the same is also available in the Company's website i.e. www.mahanadicoal.in
ii.	Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued	Assured to comply. Post-mining land will be restored and rendered suitable for agricultural or forestry purposes, following the Guidelines for

	by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.	Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August 2009 and subsequent amendments. The condition is related to activity, which requires compliance during final mine closure stage.
iii.	The final mine void depth should preferably be as per the approved Mine 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. Post-mining land be rendered usable 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 Coal dated 27th August, 2009 and subsequent amendments.	Assured to Comply Bhubaneswari OCP is a running mine. As per progressive mine closure plan the void is being backfilled and reclaimed, and plantation is being practiced in the mine. The condition is related to activity, which requires compliance during final mine closure stage.
iv.	The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity 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 MOEFCC/RO.	Partially complied. As per progressive mine closure plan the void is being backfilled and reclaimed, and plantation is being practiced in the mine. An area of 30 ha of biologically reclaimed land over internal OB dump, green belt along with the previous 25 Ha resulting a total 55 Ha so far. The condition is related to activity, which requires compliance during final mine closure stage.
v.	Further, it may be ensured that as per the time schedule specified in mine closure plan it should 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, Forest and Climate Change/ Regional Office.	Partially complied. Top soil is being stacked separately and spread concurrently over technically reclaimed backfilled area before plantation. An area of 30 ha of biologically reclaimed land over internal OB dump, green belt along with the previous 25 Ha (out over 65 Ha of land, 25 Ha remaining due to dump rehandling) resulting a total 55 Ha on the internal dump, comprising native species such as Neem, Gamhari, Sirsa, Maha neem, and Karanj. Additionally, 50 Ha Plantation by DFO, Angul at Gurjang under Range Officer Talcher.

		Grassing & short duration plantation is being done covering whole external dump of an area 94 Ha. Which is now being rehandling into mine void area. and the compliance report is regularly submitted to Regional office MoEF&CC, Bhubaneswar in six monthly basis. An amount of 170.73 lakhs has been deposited with the DFO, Angul, for taking up plantation in the Bhubaneswari OCP.
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.	Not Applicable presently. Bhubaneswari OCP is a running mine. No grazing land is involved in the core zone.
7. Public Hearing and Human Health Issues		
i.	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.	Being complied. Adequate illumination is being provided and monitored in all parts of the mine as per DGMS standards.
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.	Being complied In compliance to provisions of Mines Act' 1952 and DGMS circular, regular periodic health checkup of workers initially and in 5years (both contractual & departmental) and the workers above 45years of age are subjected to health checkup in every 3 years. 20% of employees engaged in active mining are also included in the above provision. Medical examination of all the contractual workers are also conducted and no case related to occupational disease detected so far and the reports are being submitted to DGMS
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 All the persons who are working in dusty areas are provided with PPE as per the requirement. monitoring is being done for compliance of the PPE usage

iv.	Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.	Complied Skill training in accordance with safety norms specified by the Directorate General of Mines Safety (DGMS) is provided to all workmen, including outsourcing employees, to ensure adherence to high safety standards within the mines. All skilled personnel undergo mandatory vocational training classes as per DGMS norms, which encompass theoretical and practical components.
v.	Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.	Complied Effective arrangements have been made to provide and maintain a sufficient supply of drinking water at suitable and conveniently located points for all people employed at the mine, in compliance with the requirements of the Mines Act, 1952, and DGMS regulations.
vi.	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z11013/57/2014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues 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'.	Being complied. Maximum number of mitigation measures provided in Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues 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' are being followed.
vii.	PP should conduct epidemiology study for analysis of the distribution, patterns and determinants of health and disease conditions in defined populations.	Assured to Comply The project proponent has initiated the process of conducting an epidemiological study aimed at analyzing the distribution, patterns, and determinants of health and disease conditions in the population affected by mining operations.
8. Corporate Environment Responsibility		
i.	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 infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation	Being complied The company has a well laid down environmental policy approved by the MCL Board on 18.04.2019 as per CIL policy. As per the report the Company has a defined system of reporting non – compliance of environmental conditions. The policy is uploaded on MCL website .

	of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.	
ii.	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.	<p>Being complied.</p> <p>A separate Environmental Cell both at the project and company head quarter level has been set up. The constituent members of the Environment Management Cell at project level are as follows.</p> <ol style="list-style-type: none"> 1.R Sriram, Project Officer 2.Praveen Pintoo, SO(Envt.) 3.Dibakar Maji, GM (Min.)/SO(P&P) 4.Manik Garg, Sr Manger /SO(Civil) 5.D K Behera, Chief Manager/PE(E&M) 6.Rajabrahma K, Project Emt Officer 7.Nagen ku Das, Project Survey Officer <p>Similarly Environmental Cell exists at HQ level with qualified personnel.</p>
iii.	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 environmental 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.	<p>Partially Complied.</p> <p>Action plan already prepared in EIA-EMP and year wise fund for Environmental Protection measures is also incorporated. But there is no separate bank Account. However, year wise funds are being allocated/kept for environmental activities under separate head and the report is being submitted on six monthly basis.</p>
9. Miscellaneous		
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.	<p>Complied</p> <p>Advertisements have been made on 01.07.2025 in two newspapers, of which one is The Dhariti newspaper in Odia language and another is English daily, The New Indian Express and in addition, this has also been displayed on the MCL website permanently.</p>
ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and	<p>Complied</p>

	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.	Two copies of Environmental clearance have been given/submitted to local bodies of Hensmul, Khandal, Dera panchayats in addition to the Govt. offices to display the same for 30days.
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.	Being Complied All the results of monitoring data and environmental clearance conditions are displayed on the company website and updated the same on half-yearly basis.
iv.	The project proponent shall submit six-monthly 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.	Being complied. The status of the compliance of the stipulated environmental conditions will be submitted on the website of the ministry of Environment, Forest and Climate Change at Environment clearance portal.
v.	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.	Being complied. Environmental statement for each financial year in Form-V is being submitted to State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
vi.	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.	Being complied. Bhubaneswari OCP is a running mine of Mahanadi Coal fields Ltd for all the information that have already been given to Regional Office of the MOEF&CC regarding commencement of mining operations.
vi.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Assured to comply. All the stipulations made by the State Pollution Control Board and the State Government will be strictly complied.
viii.	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.	Assured to comply. 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 will be strictly complied.

ix.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Assured to comply.
x.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Assured to comply.
xi.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Assured to comply.
xii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Assured to comply.
xiii.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Assured to comply.
xiv.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules 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.	Assured to comply.

GM (Min)/ Project Officer

Bhubaneswari OCP

Project Officer
Bhubaneswari OCP

**FORMAT FOR PROVIDING PARTICULARS ON GREEN BELT/PLANTATION
UNDER F(C) ACT 1980 AND EP (ACT) 1986**

1	a) Name of the organization	Mahanadi Coalfields Limited
	b) Env. /Forest clearance order	(i) Env. Clearance accorded vide letter no. J-11015/280/2013-IA. II (M) pt. Dt.23.06.2025. (ii) Stage-II Forest clearance granted vide letter no 8(18)/2002-FCE DT. 06.12.2004. (ii) Stage-II Forest clearance granted vide letter no 8-18/2002-FC(vol) I/113241/2025 DT 30-05-2025,
2	Location, Block /Sub divn. / Dist./state	Location Talcher Block Talcher Sub division Talcher Dist: Angul State Odisha
3	Address for communication	Office of the Project Officer, Bhubaneswari OCP, Jagannath Area, P.O. Dera C olliery, Dist: Angul. 759103, Ph. 06760-269844, Extn-7285 Fax.269527
4	Existing vegetation in the area	Tropical dry deciduous open canopied forests with Sal as dominant.
(a)	Species (Trees/Shrubs/grasses/climbers)	(Trees, Shrubs, Grass, and Liana)
(b)	Major prevalent species of each type	Tree: Sala, Jamu, Kendu, Tala, Karada Shrubs: Kendu, Kakhida, Navagin Grass: Mutha, Jhadu ghasa, Khadika Liana: Achundi, Pita Alu. Etc.
5	Land coverage by the project	
(a)	Total area under the project	787.911 ha.
(b)	Area covered for basic infrastructure (roads / buildings / factory etc.)	The major break up is as under: Infrastructure: 10.933 ha. Residential Colony: 32.00 Ha Rehabilitation Site: 117.570 ha.
6	Details about natural vegetation	
(a)	Name and number of trees/species felled	10024 nos. over 68.911 ha. of forest land felled by Forests Department.
(b)	Name and number of plant species still available in the area	2519 nos. over 17.955 ha. in balance forest area.
(c)	By protecting the area will indigenous stock come up.	Yes
(d)	Extent of green belt developed	6.033 Ha. green belt has been developed on the safety zone by the forest department.

7.	Plantations required to be carried out					
(a)	Conditions of Environmental Clearance in ha./nos.	2500 plants per Ha.				
(b)	A condition of Forest (C) act clearance	<p>Comp afforestation: 225.042 Ha. And total biological reclamation of mined out area, OB dump etc. by State Govt for which amount has already been deposited with State Govt.</p> <p>CA Land of 62.725 Ha of Degraded Revenue Forest Land in Karnapur Village under Talcher Range of Angul Forest Division, CA Scheme has been approved with 2.75 Cr and has been deposited.</p>				
(C)	Voluntarily in ha/nos.	2500 plants per Ha.				
(d)	Details about plantation	Executed by Forest department, Orissa				
(a) Total area available for plantation in each category (Proposed) for 2026-27						
i) Green belt		ii) Dump		iii) Back filled area		iv) Road side
						v) Block plantation
		-		10 Ha.		--
b) Plantation details (Category wise and methodology used)						
Year of plantation	Species planted	Spacing	Height attained	Total area covered	Area still available(d)	
2000-01	Mixed Sisoo, Gambhar, Neem, etc.	2X2 mtr	>1.2 mtr	1.6 Ha.	in 3 years	
2006	Teak			20.383		
2010-11	9650 Nos					
2018-19	Native Species	2.5X2.5 mtr	>1.2 mtr	5.0 Ha		
2019-20	Native Species	2.5X2.5 mtr	>1.2 mtr	4.0 Ha		
2020- 21	Native Species	2.5X2.5 mtr	>1.2 mtr	5.0 Ha		
2021-22	Native Species	2.5X2.5 mtr	>1.2 mtr	18.0 Ha		
2022-23	Native Species	2.5X2.5 mtr	>1.2 mtr	5.0 Ha		
2023-24	Native Species	2.5X2.5 mtr	>1.2 mtr	8.0 Ha		
2024-25	Native Species	2.5X2.5 mtr	>1.2 mtr	22.45Ha (13 OB + 9.45 Road)		
c) Survival % of plantation						

	Survival % of plantation	2010-11	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
	Total plantation (no)	9650	9500	12500	40000	12500	20500	50000
	Survival (no)	7720	9200	11000	36000	11000	20100	40000
	Survival (%)	80% approx. (after 3 year) 80%						
(8)	Agency carrying out plantation and maintenance	DFO Angul and Departmental						
(9)	Financial details (year wise) Plantation wise and item wise							
	Sl	Year			Funds allocated		Expenditure made	Remarks

2000-01	2.55 lakhs	1.6 ha. green belt.
2003-04	32.53 lakhs	Deposited with DFO, Angul as part of CA.
2004-05	170.73 lakhs	Paid to DFO, Angul towards biological reclamation as per Stage-I Forestry Clearance.
2004-05	07.59 lakhs	for maintenance of excluded forest area of 20.383Ha
2004-05	50.00 Lakhs	Deposited to DFO, Angul, Scheme for Habitat Imprv. Plan.
2005-06	28.28 Lakhs	Paid to Forest Dept. regarding Protection & Regeneration of Safety Zone.
2006-07	Nil	
2007-08	Nil	
2008-09	Nil	
2009-10	Nil	
2010-11	-	Safety zone plantation by forest department
2011-12	Nil	
2012-13	Nil	
2013-14	Nil	
2014-15	Nil	
2015-16	Nil	
2016-17	Nil	
2017-18	Nil	
2018-19	Nil	
2019-20	Nil	
2020-21	Nil	
2021-22	Nil	
2022-23	Nil	
2023-24	Nil	
2024-25	Nil	
2025-26	52.28 Lakhs	Paid to DFO Angul for Undisturbed Area Plantation Scheme of Gurjang covering 50 Ha (10,000 seedlings) Bhubaneswari Area under Talcher Range.

186.83 Lakhs

Paid to DFO Angul for Implementation of Gap Planting, Soil & Moisture conservation activities scheme as per Stage-II FC.

Plantation is being carried by the M/s BCML an out sourcing agency add departmental. An amount of 170.73 lakhs has been deposited to the DFO, Angul for taking up plantation in the Bhubaneswari OCP

10 Inspection of plantation by field experts and their comments and follow up action :

11 Remarks/ any other information :



Project Officer
Bhubaneswari OGP

SIX MONTHLY PROGRESS REPORTS
ON
THE IMPLEMENTATION OF
ENVIRONMENTAL CLEARANCE
CONDITIONS IMPOSED BY MoEF&CC,
NEW DELHI.

Six month ending September'2025



BHUBANESWARI OCP

BHUBANESWARI AREA

MAHANADI COLAFIELDS LIMITED

MAHANADI COALFIELDS LIMITED

NAME OF THE PROJECT: BHUBANESWARI OCP, BHUBANESWARI AREA.

No. & Date of MOEF clearance letter: J-11015/159/2015-IA. II (M) pt. Dtd.10.11.2023

SIX MONTHLY PROGRESS REPORTS ON THE IMPLEMENTATION OF ENVIRONMENTAL CLEARANCE CONDITIONS IMPOSED BY MoEF&CC (SIX MONTHS ENDING WITH SEPTEMBER - 2025)

Sl No.	Condition	Compliance status
i.)	PP shall commission the mechanized system for 28 MTPA (i.e. ~92% of 30MTPA) before November 2023 and for the rest 2 MTPA (i.e. ~8% of 30MTPA) by the road through automatic truck loading system linked with SILO arrangement. Accordingly, SPCB shall issue the CTO.	Being complied. The project has commissioned a mechanized closed pipe conveyor system with a SILO of 25 MTPY capacity (10 MTPY in Phase I and 15 MTPY in Phase II) for coal transportation. An automatic truck loading system, capable of dispatching 3 MTPA, is integrated with the SILO system. Consent to Operate (CTO) has been obtained for 30 MTPA as per order no. 6774/IND-I-CON-4829 dated 30/03/25.
ii)	PP shall construct dedicated road away from the village and sensitive location like school and hospitals for the transportation of 2MTPA (i.e.~8% of 30MTPA) coal through 40 tonne (pay load) of the truck size.	Being complied. Coal transportation by trucks is being carried out through a dedicated coal corridor road of 1.82 km, which has been constructed exclusively for this purpose. This corridor bypasses all village areas, ensuring that no village roads or sensitive locations such as schools or hospitals are used for coal transportation.
iii)	PP shall technically and biologically reclaim the area of 150 ha as proposed within one year i.e. till October 2024 and certificate shall be submitted to Ministry's IRO.	Partially complied. An area of 30 ha of biologically reclaimed land over internal OB dump, green belt along with the previous 25 Ha (out over 65 Ha of land, 25 Ha remaining due to dump rehandling) resulting a total 55 Ha on the internal dump, comprising native species such as Neem, Gamhari, Sirsa, Maha neem, and Karanj. Additionally, 50 Ha Plantation by DFO, Angul at Gurjang under Range Officer Talcher. Grassing & short duration plantation is being done covering whole external dump of an area 94 Ha. Which is now being rehandling into mine void area. and the compliance report is regularly submitted to Regional office MoEF&CC, Bhubaneswar in six monthly basis. An amount of 170.73 lakhs has been deposited with the DFO, Angul, for taking up plantation in the Bhubaneswari OCP.
iv)	PP shall install additional online CAAQMS for air quality measurement by November 2023. Data so generated from online CAAQMS shall be connected with server of SPCB/CPCB and report to be submitted to IRO, MoEF&CC.	Being complied. Two continuous ambient air quality monitoring stations (CAAQMS) have been installed in the core and buffer zones of the mine in consultation with SPCB. The monitoring data is displayed digitally and linked to the SPCB/CPCB websites. Procurement of two additional CAAQMS is underway, and another two are in the tendering stage for further strengthening of air quality monitoring.
v)	PP shall provide the unpaved road to paved one in order to reduce the emission of fugitive dust.	Partially complied. Currently, the haul roads are temporary and the location changes based on the availability of exposed coal faces and the progress of mining activities. In practical implementation it is not economically viable. The project utilizes murrum/crushed OB material on unpaved haul roads, complimented by water sprinkling as effectives measure to prevent fugitive dust

		emission. For control of dust emissions, water tankers, mist cannons were being used			
vi)	The PP shall implement the following air pollution control measurement within six-months and a progressive report to be submitted to IRO, MoEF&CC				
	Sl. No.	Particular of air pollution measurement	Quantity Deployed (Nos./units)		
	1.	Mobile Water mist sprinkles with fire-fighting arrangement (28 LK VOLVO FMX-460)	01	Being complied.	
	2.	Mobile fog Cannon	03		
	3.	Pipeline arrangement with fixed nozzle for fire-fighting and dust suppression	06		
	4.	Static Fog cannons	10		
	5.	Vertical Greenery barrier	800m		
	6.	Wheel Washing Unit	01		
	7.	Fixed type sprinkles.	25		
vii)	PP to resolve suggestion/objection raised during the public hearing with activities-wise proposed budget of Rs.384.99 Cr (as estimated budget proposed in upcoming year's part of Public hearing) as per the table below. The details of annual expenditure shall be part of report submitted to IRO, MoEF&CC. PP needs to include the audited figures against the expenditure and activities to be monitored by through dedicated monitoring mechanism. The maintenance of all activities shall be covered through recurring cost of public Hearing, which will be part of CSR budget.				
	Sl. No.	Heads under Public hearing	Expenditure incurred till dated in addressing the issue in Rs.(Cr)	Estimated budget proposed in upcoming years in Rs. (Cr)	Being Complied.
	1	Employment	79.79	14.76	Project is taking measures for fulfilling the commitments made during the Public Hearing.
	2	Drinking Water & Maintenance of village pond	10.56	07.01	
	3	Pollution control measure	27.35	318.15	
	4	Peripheral & Mine plantation	4.53	45.00	
	5	Pollution control on peripheral Roads	0.05	0.07	
		Total	122.28	384.99	
viii)	PP shall construct STP for the villager located inside the Core zone of the ML area such as Kandhal, Madanmohanpur and Anadipur village.	Being complied. No village exists in the core zone of the ML area. All the villages inside the ML area. Kandhal, Madanmohanpur and Anadipur villages have been shifted and the area was already used for mining purposes. Therefore, the stipulation is not applicable to the project presently			
ix)	PP shall protest/preserve 5ha Sal nursery with capacity of approximate 50,000 Sal saplings and yearly minimum 10,000 sapling to be distributed among near villagers from afforestation purpose.	Being complied. A Sal nursery has been constructed on 5 hectares of land adjacent to the mine lease area. Currently, the nursery contains 14,000 saplings, and 10,000 saplings have already been distributed among nearby villagers to support afforestation during the monsoon season. Expansion activities continue, with regular monitoring and maintenance being carried out to ensure develop nursery with 50,000 numbers of samplings as stipulated.			
x)	PP shall submit audit report (of next phase) for progressive mine closure beyond the 2015-16 to till date of IRO, MoEF&CC.	Complied. Mine closure report for Phase III (2015-16) has been prepared and submitted to CCO Sambalpur, MoEF&CC New Delhi and to Regional Office.			

xi)	PP shall monitor the functionality of ETP and regular monitoring of effluent on six monthly basis and the progressive report shall be submitted to the IRO, MoEF&CC.	<p>Being complied.</p> <p>The Effluent Treatment Plant (ETP) is functional at the workshop area. Regular monitoring of effluent is conducted, and the ETP water quality analysis report is submitted to the Regional Office on a six-monthly basis.</p>								
xii)	PP shall start reclamation of the mine with combination of top soil and fly ash with the development of grazing facility and other activities to be considers from the progressive mine closure plan.	<p>Partially Complied.</p> <p>Bhubaneswari OCP is a running mine. Internal overburden (OB) is used exclusively for backfilling purposes, with no fly ash currently utilized for backfilling. Biological reclamation is undertaken after spreading topsoil over technically reclaimed areas. No void or land is available for fly ash dumping inside the mines.</p>								
xiii)	PP shall fulfill the water requirement for agricultural purpose by creating artificial ponds and shall fulfill the drinking water requirement after treatment through dedicated well and alternate source for villagers.	<p>Being complied</p> <p>Drinking water through Mobile tankers and piped water supply scheme under CSR is being supplied to all the nearby villages of the mine. During 2022-23 Rs. 28.84 Lakhs and in 2023-24 Rs 134. and in 2024-25 163.69 Lakhs has been spent for this purpose. Additionally, Integrated Water Supply System, (IWSS) of MCL for supply of water was being served to the nearby villages.</p> <p>One pond in Dera village was cleaned and modified for domestic purposes and an additional Work order has been issued for 3 Ponds in Kauchiakhol, Kia Bandha, and Nua Bandha at Netadi Village. Village ponds around the mine are also cleaned for multi-purpose.</p>								
xiv)	Water storage ponds shall be constructed of appropriate depth in nearby village in collaboration with Gram panchayat.	<p>Being complied.</p> <p>One pond in Dera village was cleaned and modified for domestic purposes and an additional Work order has been issued for 3 Ponds in Kauchiakhol, Kia Bandha, and Nua Bandha at Netadi Village. Village ponds around the mine are also cleaned for multi-purpose.</p>								
xv)	PP shall provide Quarterly health check-up with free medical facilities for the local villagers surrounding to the 10 km buffer area along with the ambulance facilities.	<p>Being complied.</p> <p>MCL has constructed and dedicated to the Odisha state Govt a multi-specialty hospital named as Pabitra Mohan Pradhan medical hospital (PPMH) for surrounding villages of Angul district as a part of CSR initiative. Additionally, Medical camps have been conducted in nearby local villages. Free medical treatment to all patients was being carried out at MCL</p> <p>Table: Details on the number of villagers undergone Medical Checkup.</p> <table border="1" data-bbox="818 1518 1445 1653"> <thead> <tr> <th>Medical Camp Conducted</th> <th>Attended</th> </tr> </thead> <tbody> <tr> <td>Brajnathpur- 02.10.2024</td> <td>Total-119 nos.</td> </tr> <tr> <td>Tentloi- 28.02.2025</td> <td>Total-130 nos</td> </tr> <tr> <td>Khandal - 22 09.2024 (Eye Camp)</td> <td>Total - 150 Nos</td> </tr> </tbody> </table>	Medical Camp Conducted	Attended	Brajnathpur- 02.10.2024	Total-119 nos.	Tentloi- 28.02.2025	Total-130 nos	Khandal - 22 09.2024 (Eye Camp)	Total - 150 Nos
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Khandal - 22 09.2024 (Eye Camp)	Total - 150 Nos									
xvi)	PP shall establish a technical training institute in the area to train the local youth for better employment. A report shall be prepared & submitted upon the status of the training session already conducted in order to provide livelihood and skill development to near –by villagers to make them employable.	<p>Being complied.</p> <p>A technical & vocational training institute at Balanda was already running to train the local youth for better employment. It is reported by the project proponents that a total of 540 villagers especially local youth around the mines have been given training at training center at balanda as a part of skill development in order to provide livelihood to the villagers.</p> <p>Additionally, 200 Nos of Sewing machines were distributed to female villagers as a part of skill development with a trainer in three panchayat offices namely Hensmul, Dera, Brajanathpur.</p>								

xvii)	PP needs to submit the compliance of SOP issued by CPCB regarding dumping of mine void with fly ash.	Not Complied Bhubaneswari OCP is a running mine. No mine void is available for dumping with fly ash in the mine. In light of the this, no progress on fly ash dumping in the mine voids and compliance to CPCB norms / guidelines issued regarding dumping of fly ash in mine voids.
xviii)	The project proponent shall include development of solar parks, eco-friendly-parks, fish farming pond, and picnic spot and sports compound in its Mine Closure Report. Further if the possible, maximum possible area of quarry shall be brought up to original ground level and handover the land to the project affected families.	Assured to comply. Bhubaneswari OCP is a running mine. CMPDIL has been awarded the job to include development of solar parks, eco-friendly-parks, fish farming pond, and picnic spot and sports compound include in final Mine Closure Report also maximum possible area of quarry will be brought up to original ground level.
xix)	Proper garland drains and retaining wall should be made (if required) and same should be revived from time to time.	Being complied. Garland drains and retaining wall at toe of OB dump and all along the mine boundary are constructed wherever required. all the retaining wall and garland drains are cleaned and revived from time to time as part of monsoon drive in the mine.
xx)	PP shall not use the ground water for any type of mine closure activity. PP shall maintain one permanent Piezometer for monitoring of ground level.	Being complied. No ground water is used for any type of mine closure activity also Permanent piezometer is available for monitoring of ground level.
xxi)	PP to complete the tree plantation particularly fruit bearing tree along the village road within six months from date of issue of EC to IRO, MoEF&CC. the plantation shall also be planted along the Mine boundary and Mine pit. A detailed report with GIS images of every six months subsequently be submitted in every six monthly report to justify the adequate tree plantation.	Being complied. Tree plantation, up to a length of 13.42 kilometers has been made by the project and consists mainly of fruit-bearing plants along with native species, was planted along the village roads and the mine boundary. Plantation in an area of 50 Ha in Gurjang village will be taken in DFO Angul and its report along with GIS images will be submitted.
xxii)	PP shall increase number of fixed type sprinkling system (near to haul road, stockyard, transportation route etc.) across the mine lease area in order to arrest the dust coming out from the mining activities.	Being complied. Mitigative measures to control dust and other fugitive emissions are detailed below: <ol style="list-style-type: none"> 1. 02 no. of truck mounted fog cannon with up to 40 mtr spray length is deployed for coal transportation road & coal corridor, mine face etc. 2. 16 nos. of mobile water sprinklers having capacity ranging from 12 to 28 KL are in operation for dust control. 3. 02 nos. of Volvo 28 KL capacity with mist sprinklers system are in operation. 4. 01 nos. Mechanical Road sweeper. 5. 10 nos. of fixed sprinklers are provided at railway sidings. 6. 10 nos. of trolley mounted fog cannons with 100 mtr spray are provided 7. 02 nos. instant shower systems are provided at the exit point of the quarry. 8. Closed Pipe Conveyor with SILO System (25 MTY) for coal transportation to sidings. 9. Wind Barrier beside Coal stocks 9 and 10. 10. Wheel washing system installed at the exit of the mine.

		<ol style="list-style-type: none"> 11. The Ambient Air Quality parameters are within the prescribed norms. A dedicated coal transportation corridor of 20.99 Km length (1.82 Km in Bhubaneswari OCP) has been constructed bypassing the residential areas and other habitation. 12. 03 nos. of underpasses have been constructed on the coal corridor to avoid crossing of public road, thereby improving ambient air quality, congestion and safety. 13. 100% coal production is done through Environment friendly Surface Miners. 14. More than 85% coal dispatch is done through eco friendly rail mode. 15. Trucks & vehicles used for transportation of coal outside the mine area are covered with tarpaulin <p>4 No's of fog cannons, 2 Nos of Truck Mounted Fog Cannon and 25 No's fixed-type sprinklers are in the procurement stage across the mine lease area to arrest the dust coming out from the mining activities</p>
xxiii)	<p>PP shall install 100 m jet spray length in order to arrest the heavy air pollution on the roads and other dust generating points. More number of fog cannons, Road sweeper and Mobile water sprinklers to be used on road.</p>	<p>Being complied.</p> <p>Road sale trucks & vehicles used for transportation of coal outside the mine area are covered with tarpaulin. Various measures like jet spray / fog cannons/ mist water spraying and mobile tankers watering have been deployed in the project site. Other pollution control equipment/vehicles in the project are listed below:</p> <ol style="list-style-type: none"> 1. 02 no. of truck mounted fog cannon with up to 40 mtr spray length is deployed for coal transportation road & coal corridor, mine face etc. 2. 16 nos. of mobile water sprinklers having capacity ranging from 12 to 28 KL are in operation for dust control. 3. 02 nos. of Volvo 28 KL capacity with mist sprinklers system are in operation. 4. 01 nos. Mechanical Road sweeper. 5. 10 nos. of fixed sprinklers are provided at railway sidings. 6. 10 nos. of trolley mounted fog cannons with 100 mtr spray are provided 7. 02 nos. instant shower systems are provided at the exit point of the quarry. 8. Closed Pipe Conveyor with SILO System (25 MTY) for coal transportation to sidings. 9. Wind Barrier beside Coal stocks 9 and 10. 10. Wheel washing system installed at the exit of the mine. 11. The Ambient Air Quality parameters are within the prescribed norms. A dedicated coal transportation corridor of 20.99 Km length (1.82 Km in Bhubaneswari OCP) has been constructed bypassing the residential areas and other habitation. 12. 03 nos. of underpasses have been constructed on the coal corridor to avoid crossing of public road, thereby improving ambient air quality, congestion and safety. 13. 100% coal production is done through Environment friendly Surface Miners. 14. More than 85% coal dispatch is done through eco friendly rail mode.

		15. Trucks & vehicles used for transportation of coal outside the mine area are covered with tarpaulin 4 No's of fog cannons, 2 Nos of Truck Mounted Fog Cannon and 25 No's fixed-type sprinklers are in the procurement stage across the mine lease area to arrest the dust coming out from the mining activities.												
xxiv)	PP shall construct 25-sitting digital library in each village including the daily newspaper facility.	Complied Digital library with 25-sitting along with daily newspaper facility has been provided in 4 villages of Balunga Khamar, Anadapur, Talbeda, & Kandhal G.P Village of Angul. There were a total of 9 villages affected due to this mining project. Out of this, 5 villages (These villages are covered with all facilities of MCL including schools provided with digital library) have been shifted and resettled. The resettled people are provided with all facilities including schools having digital library for the children. The project authorities have provided digital library facilities to remaining 4 village which have not been shifted.												
xxv)	PP shall create a "Public Grievance Redressal and Monitoring System" for resolving any issues related to the pollution of mines and complaint has to resolve as soon as possible not beyond 30 days. In this regards, adequate awareness to be spread among the public to address their grievance to company with simple and easy manner and for which company needs to devise the mechanism. The same shall be reported to IRO within 3 months. A logbook to be maintained by PP on "Public Grievance Redressal and Monitoring system."	Being complied. "Public Grievance Redressal and Monitoring System" have been set up at Area level and Project level for resolving any issues related to the pollution of mines also adequate steps have been taken to spread awareness among the public to address their grievances to company. Also, a logbook is being maintained at the project level. Apart from this, provision is made in MCL website for lodging grievance through Centralized Public Grievance Redress and Monitoring System Details on the Public Redressal and Monitoring system												
		<table border="1"> <tr> <td>Head</td> <td>Area Personnel Officer</td> <td>Sri Sukdev Seth General Manager (Per) -</td> </tr> <tr> <td>Member</td> <td>Project Personnel Officer</td> <td>S S Das Manager Personal</td> </tr> <tr> <td>Sub Head</td> <td>Personnel Officer</td> <td>Sri Debankita Debnath Dy Manager</td> </tr> <tr> <td>Member</td> <td>Personnel Officer</td> <td>A Panda Asst Manager Personal</td> </tr> </table>	Head	Area Personnel Officer	Sri Sukdev Seth General Manager (Per) -	Member	Project Personnel Officer	S S Das Manager Personal	Sub Head	Personnel Officer	Sri Debankita Debnath Dy Manager	Member	Personnel Officer	A Panda Asst Manager Personal
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Member	Personnel Officer	A Panda Asst Manager Personal												
xxvi)	PP shall conduct third party audit of compliance of EC condition at an interval six months and its report submitted to IRO, MoEF&CC.	Being Complied The project proponent has awarded the third-party audit work for air and water quality to IIT Bhubaneswar. The project proponent commits to implementing the recommendations arising from the audit and will submit the audit outcomes to the concerned Regional Office of MoEF&CC												
xxvii)	The status of the mine closure activities must be included in every six months compliance report submitted to the state pollution board and IRO.	Being complied. The status of the mine closure activities will be included in every six months compliance report and will be submitted to the state pollution board and Regional Office.												
xxviii)	PP to maintain the topped haul road properly to minimized the dust emission. PP to also develop pucca roads by seeking consent from the panchayat with widening of roads especially roads inter linking the villagers within the study area of 10 km radius buffer zone.	Being complied. Currently, the haul roads are temporary in nature and the location changes based on the availability of exposed coal faces and the progress of mining activities. In practical implementation, it is not economically viable. The project utilizes murrum/crushed OB material on unpaved haul roads, complimented by water sprinkling using Mobile water tankers												

		and Mobile Fog cannons as an effective measure to prevent fugitive dust emission which was agreed upon by scientific reports from IIT BBS. A total of 8.5 Km of roads connecting to langijoda khandal to Arakpal Naraharipur & L&T chack to bangarunalla junction are made pucca roads within the study area of 10 km radius buffer zone.
xxix)	PP to install solar light along the road used for transportation of minerals to avoid the accidents at night and also seeking its maintenance. PP is asked to also identify the rural area for installation of solar light with its maintenance within the study area of 10 km radius buffer zone within one year	Assured to comply. Proper Illumination is provided to the road used for transportation of minerals to avoid the accidents at night at night are presently installed with LED lights. 50 Nos of solar lights are in procurement stage for installation of solar lights within area of 10 km radius buffer zone. Additionally, an amount of 80,000/- has been deposited to DFO Angul on 10.07.2025 for Installation of Solar Lights within the Buffer Zone.
xxx)	PP to provide bio toilets to the villagers located within the study areas within 1 year from the grant of this EC.	Complied. One No's of Bio toilet was installed in Dera Gram Panchayat. Additionally Six Bio toilets are distributed to nearby villages namely Dera, Khandal, Anadipur, Hensmul, Rangunathpur, and Khammar.
xxx)	PP shall pay to farmer of agricultural land if there is any loss due to pollution found by concert District commissioner as per extent rules and norms.	Assured to comply. Farmers of agricultural land will be paid if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms
xxxii)	PP shall explore at least 20% of overall fleet of dumpers/truck/other vehicle as electrical or CNG/LPG based for transportation of coal/OB etc.	Being complied. Currently contracts have been existing for dumpers/truck/other vehicle. Initially, 2 Nos EV Powered 33 Cum trucks & One Nos of 2.7Cum Front end loader were engaged as a part of test run. Scientific studies/trail runs are being made to explore fleet of dumpers/other vehicle as electrical or CNG/LPG based for transportation of coal/OB etc. in the mine.
xxxii)	PP shall conduct feasibility studies for assessment of voids for backfilling of ash and mixing of ash with overburden, taking up backfilling ash and OB mixing activities during operations as well as post closure of mines in line with fly ash Utilization Notification, 2021	Partially Complied. The Feasibility studies for assessment of voids work has been completed by IIT BBSR. Bhubaneswari OCP is a running mine. And no void/land is available for fly ash dumping inside the mines and will be taken into consideration at the final mine closure.
xxxiii)	All the other terms and conditions of earlier EC dated 06-06-2003, 30-11-2012(with public Hearing), 19-02-2014, 16-02-2018 and 26-07-2022 shall be complied.	Assured to comply
xxxiv)	The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC.	Assured to comply
(a) Statutory compliance		
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.	Assured to comply Stage-II FC was obtained for 112.521 Ha vide FC No. 8-18/2002/89-FC, Dt-06.12.2004. Additionally, Stage-I FC for balance 26.416 Ha has been obtained vide FC No. 8-18/2002/FC I/82877/2024, Dt- 24.09.2024 from MoEF&CC
ii)	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not applicable NBWL Clearance is not required / applicable to the project.

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 report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).	<p>Being complied.</p> <ol style="list-style-type: none"> 1. The Site-Specific Conservation Plan / Wildlife Management Plan has been prepared and approved by PPCF Wildlife Odisha vide letter no. 2980/CWLW-FFDWC-FD-0028-2024 dated 06.03.2025. 2. The total financial outlay of 1525.14 lakhs. This amount is to be deposited in the State CAMPA fund through portal (https://parivesh.nic.in) which the Project has deposited for implementation of WLMP vide ICICR22025032608530239 Dated 26.03.2025 as per demand of DFO, Angul. 3. It is also mentioned in the approval letter that the User Agency should deposit 5% of the plan cost in the account of the “THE WILDLIFE ODISHA” maintained in the Wildlife Office towards unforeseen interventions. In compliance to the condition stipulated, the project has deposited Rs. 76.257 Lks to “THE WILDLIFE ODISHA” vide UTR ICICR22025032408459385 dated 24.03.2025. 4. The project has also deposited Rs.50 Lakhs vide challan no. 422052, dtd: 04.09.2004 with the Forest Dept. Govt. of Odisha for implementation of Habitant improvement Plan of the surrounding area. Habitant Improvement Plan has been prepared as per the FC conditions.
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.	<p>Being complied.</p> <p>The Project proponent has been obtained CTE & CTO for 30 MTPA production capacity from the concerned SPCB vide CTE 1071/IND-II-CTE-6817 Dt. 27.01.2023 & 6774/IND-I-CON-4829 -Dt.30/03/24 valid up to 31.03.2026.</p>
v)	The project proponent shall obtain the necessary permission from the Central Ground Water Authority.	<p>Being complied.</p> <p>NOC from CGWA for groundwater withdrawal has been granted vide letter No. CGWA/NOC/MIN/REN/1/2024/10151, dtd: 12.11.2024 with validity up to 15.12.2026.</p>
vi)	Solid/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.	<p>Being complied.</p> <p>The Project proponent has obtained Hazardous waste authorization from the OSPCB vide no. IND-IV-HW-566/6834 Dt.31/03/2025 valid up to 31.03.2026. The Solid/hazardous waste generated in the mines are being addressed in accordance with the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.</p>
(b) Air quality monitoring and preservation		
i)	Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10, PM2.5, SO2 and NOx. 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	<p>Being complied.</p> <p>02 No. continuous ambient air quality monitoring stations in the core and buffer zone of mine have been installed. The stations locations have been fixed in consultation with SPCB. Data is also being displayed digitally for the information of general public and data is also being linked to the website of SPCB/CPCB. One more CAAQMS is in installation stage at Gobra Village.</p> <p>Data is also being displayed digitally and data has to be linked to the website of SPCB/CPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to is being carried out once in every six months.</p>

	SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.													
ii)	The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th 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.	<p>Being complied.</p> <p>Four nos. of Ambient air quality monitoring stations have been jointly decided and established in the core zone as well as in buffer zone in consultation with the State Pollution Control Board and the monitoring is being carried out fortnightly for SPM, PM10, PM2.5, SO2, and Nox.</p> <p>Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr etc carried out at six monthly intervals.</p>												
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 critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.	<p>Being complied.</p> <p>The transportation of coal produced was being transported by (i) Rail and (ii) by roads through trucks. The details on quantity of coal transported by road through trucks is tabulated below:</p> <table border="1" data-bbox="794 801 1458 972"> <thead> <tr> <th>Sl</th> <th>Particulars of transport</th> <th>% of the total dispatch</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">TOTAL COAL DESPATCH from JAN'25</td> </tr> <tr> <td>1</td> <td>Rail mode</td> <td>88.20 %</td> </tr> <tr> <td>2</td> <td>Road – by trucks</td> <td>11.79 %</td> </tr> </tbody> </table> <p>Mitigative measures to control dust and other fugitive emissions are detailed below:</p> <ol style="list-style-type: none"> 1. 02 no. of truck mounted fog cannon with up to 40 mtr spray length is deployed for coal transportation road & coal corridor, mine face etc. 2. 16 nos. of mobile water sprinklers having capacity ranging from 12 to 28 KL are in operation for dust control. 3. 02 nos. of Volvo 28 KL capacity with mist sprinklers system are in operation. 4. 01 nos. Mechanical Road sweeper. 5. 10 nos. of fixed sprinklers are provided at railway sidings. 6. 10 nos. of trolley mounted fog cannons with 100 mtr spray are provided 7. 02 nos. instant shower systems are provided at the exit point of the quarry. 8. Closed Pipe Conveyor with SILO System (25 MTY) for coal transportation to sidings. 9. Wind Barrier beside Coal stocks 9 and 10. 10. Wheel washing system installed at the exit of the mine. 11. The Ambient Air Quality parameters are within the prescribed norms. A dedicated coal transportation corridor of 20.99 Km length (1.82 Km in Bhubaneswari OCP) has been constructed bypassing the residential areas and other habitation. 12. 03 nos. of underpasses have been constructed on the coal corridor to avoid crossing of public road, thereby improving ambient air quality, congestion and safety. 13. 100% coal production is done through Environment friendly Surface Miners. 	Sl	Particulars of transport	% of the total dispatch	TOTAL COAL DESPATCH from JAN'25			1	Rail mode	88.20 %	2	Road – by trucks	11.79 %
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TOTAL COAL DESPATCH from JAN'25														
1	Rail mode	88.20 %												
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		<p>14. More than 85% coal dispatch is done through eco friendly rail mode.</p> <p>15. Trucks & vehicles used for transportation of coal outside the mine area are covered with tarpaulin</p> <p>4 No's of fog cannons, 2 Nos of Truck Mounted Fog Cannon and 25 No's fixed-type sprinklers are in the procurement stage across the mine lease area to arrest the dust coming out from the mining activities</p>
iv)	The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or 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.	<p>Being complied.</p> <p>No village roads are being used for transportation of coal and no road transport route is adopted, which is passing through any sensitive location such as schools, hospitals etc. a separate coal corridor road covering 1.82 km has been constructed for road transport which is bypassing all the village areas around the mine. 03 nos. of underpasses have been constructed on the coal corridor to avoid crossing of public road, thereby improving ambient air quality, congestion and safety</p>
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.	<p>Being complied.</p> <p>All the vehicles plying in the mine premises carries valid PUC certificate issued by authorized pollution testing center and is renewed on six monthly basis.</p>
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.	<p>Being complied.</p> <p>There is no crusher/feeder in mine, since 100% coal production is through surface miner technology.</p> <p>CHP-Pipe conveyor-SILO system is provided with fog cannon & dust suppression systems.</p> <p>All drill machines are provided with dust extractor & wet drilling arrangement.</p>
vii)	Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmentally friendly sustainable technology should be implemented for mitigating such parameters.	<p>Presently the condition is not applicable</p> <p>CHP is not there in the mining project. As Pipe conveyor-SILO system is provided with fog cannon & effective dust suppression systems in all transfer points.</p>
(c) Water quality monitoring and preservation		
i)	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board	<p>Being complied.</p> <p>The effluents are generated at the workshop and they are treated in the Effluent Treatment Plant (ETP). The treated effluents are monitored for its quality as per the terms of the parameters notified under the Water Act, 1974, Coal Industry Standards vide GSR 742 (E) dated 25th September 2000 and also a report is being sent to SPCB/CPCB and this office on six monthly bases. From the data on effluent water quality submitted to the Regional Office, the values of various parameters monitored are within the stipulated / permissible standards. (Annex -1)</p>
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-20012/1/2006-IA.I I (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.	<p>Being complied.</p> <p>The monitoring data is being uploaded on the company's website https://www.mahanadicoal.in/Environment/eenvironment.php and is being displayed at the project office.</p>

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 shall 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	Being Complied. Piezometric water level data during pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) are collected and The ground water quality monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO. (Annex -2)
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.	Assured to comply. Monitoring of water quality upstream and downstream of water bodies will be carried out in every six months and record of monitoring data will be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
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	Being complied. Mine is zero discharge mine. Ground water is not used for mining operations. During monsoon, the rain water from the mining area is collected in 03 nos. of mine sumps having capacity of 6.2 Mm ³ which acts as a reservoir cum recharge structures. 03 nos. of Rooftop rain water harvesting arrangement in the Project Office and 01 no. constructed at Bhubaneswari guest house for recharge of ground water.
vi)	Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly 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 de-silted 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.	Being complied. Catch drains of dimension 2m*2m*2200m have been provided around the external dump with 02nos. of siltation ponds of capacity 90×25×3 m ³ and 80×60×3 m ³ . Catch drains around mine (7km×1.5m×1m) have been provided. Catch drain has been provided around coal stock. The water is channelized to mine sump. Retaining walls at toe of OB dump are provided wherever required. Catch drains are de-silted and regularly cleaned before monsoon. 03 nos. of mine sump act as a huge rainwater harvesting structure 1. North side sump: 2247000 m ³ 2. South side sump: 2310000 m ³ 3. Northwest sump: 1795500 m ³ . Water from the sump after settling is being re-used for firefighting, dust suppression and watering of plants etc.
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	Being complied. Mine is zero discharge mine. During monsoon, the rain water from the mining area is collected in 03 no. of mine sumps having capacity of 6.2 Mm ³ which acts as a reservoir cum recharge structures.

	due treatment conforming to the specific requirement (standards).	03 nos. of rain water harvesting arrangement in the Project Office and 01 no. constructed at Bhubaneswari guest house for recharge of ground water. The project also implements the Integrated Water Supply System (IWSS) through which drinking water is being supplied to the nearby villages of the mine.
viii)	Industrial waste water generated from 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.	Being complied. There is no CHP in the mining project. The only source of effluents is from the Workshop located in the project. The effluents from Workshop are treated in the ETP. The ETP (400 m ³ /hr.) is equipped with oil & grease trap along with mechanical oil skimmer has been provided for treatment of wastewater at workshop. The water is re-circulated and reused for industrial purposes. There is no STP in the project as they do not have a colony. Treated effluent is being monitored and the values are within permissible limits. Zero discharge of treated effluent is being implemented at workshop.
ix)	The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.	Being complied. Mine is zero discharge mine and no water is being pumped out of the mine. All the water generated during monsoon, is collected in 03 no. of mine sumps having capacity of 6.2 Mm ³ which acts as a reservoir cum recharge structures and the water from the sump after settling is being re-used for firefighting, dust suppression and watering of plants etc.
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/GoI 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.	Being complied. The Surface drainage plan/ Monsoon preparation plan was prepared and implemented in the mine as per the approved Mine plan. There is no natural stream or nala passing through the mine. The surface runoff from the mine during the monsoon is drained into mine sump for storage and re-use.
xi)	The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.	Being complied. Riverine/riparian ecosystem conservation and management plan has been prepared and approved with the irrigation/water resource department in the state government, will be implemented in consultation with Irrigation/water resource department.
(d) Noise and Vibration monitoring and prevention		
i)	Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers	Being complied.

	engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipment's (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.	The noise levels are within the prescribed limits. Workers engaged in blasting and drilling operations, operations of HEMM etc are provided with PPEs like ear plugs/ muffs. Awareness among the workers with training & displaying of posters and signboards at work places etc.
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.	Being complied. Controlled blasting by Electronic detonator & NONEL technology is being practiced and ground vibration is monitored by Blastmate with proper maintenance of records. Threshold Limit :- 10 PPV Readings of the Vibration :- 1-5 PPV
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.	Being complied. Noise level survey is being carried out as per the guidelines by NABL certified laboratory at all vulnerable points in the mine and report is being submitted on six monthly basis. Values are within the permissible limits.
(e) Mining Plan		
i)	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.	Assured to comply. All the Mines Act 1952 and its legislations made there-under are strictly carried out by the mine authority.
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).	Assured to comply. Mining is being carried out as per approved mining plan and abiding by relevant laws related to coal mining and the circulars issued by DGMS. Approved mine closure plan is compiled and submitted.
iii)	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.	Assured to comply. No mining will be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.
iv)	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.	Complied Solar power installations have been made at the following locations: <ul style="list-style-type: none"> • 6 KW solar panels were installed as mobile lighting towers to reduce energy and fuel consumption • 50 KW solar power unit at Bhubaneswari PO Office • 15 KW solar power unit at Bhubaneswari Area Office • 40 KW solar power unit at Bhubaneswari Transit Office All lights are replaced with LED lights in the mine and 2 Nos EV Powered 33 Cum trucks & One Nos of 2.7Cum Front end loader were engaged as a part of test run.
(f) Land reclamation		
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).	Being complied. Digital processing of entire lease area using remote sensing technique is being carried out on once in three yearly basis for monitoring land use pattern and the report is regularly submitted to Regional office MoEF&CC, Bhubaneswar. Copy of the same is also available in the Company's website i.e. www.mahanadicoal.in

ii)	<p>The final mine void depth should preferably be as per the approved Mine 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. Post-mining land be rendered usable 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 Coal dated 27th August, 2009 and subsequent amendments.</p>	<p>Assured to Comply Bhubaneswari OCP is a running mine. As per progressive mine closure plan the void is being backfilled and reclaimed, and plantation is being practice in the mine. The condition is related to activity, which requires compliance during final mine closure stage.</p>
iii)	<p>The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity 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.</p>	<p>Partially complied. As per progressive mine closure plan the void is being backfilled and reclaimed, and plantation is being practiced in the mine. An area of 30 ha of biologically reclaimed land over internal OB dump, green belt along with the previous 25 Ha resulting a total 55 Ha so far. The condition is related to activity, which requires compliance during final mine closure stage.</p>
iv)	<p>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 sub paragraph (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.</p>	<p>Partially complied. Bhubaneswari OCP is a running mine. Presently no void/land is available for fly ash dumping inside the mines. There is no scope of using the fly ash as their internal OB quantity is surplus to accommodate within the mine voids for backfilling purpose.</p>
v)	<p>Further, it may be ensured that as per the time schedule specified in mine closure plan it should 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 stabilised 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, Forest and Climate Change/ Regional Office.</p>	<p>Partially complied. Top soil is being stacked separately and spread concurrently over technically reclaimed backfilled area before plantation. An area of 30 ha of biologically reclaimed land over internal OB dump, green belt along with the previous 25 Ha (out over 65 Ha of land, 25 Ha remaining due to dump rehandling) resulting a total 55 Ha on the internal dump, comprising native species such as Neem, Gamhari, Sirsa, Maha neem, and Karanj. In the year 2024-25, 22.45Ha of plantation, including 13.42 Running Kilometers (RKM), were planted in and around the mines. and additionally, 50 Ha Plantation by DFO, Angul at Gurjang under Range Officer Talcher. Grassing & short duration plantation is being done covering whole external dump of an area 94 Ha. Which is now being rehandling into mine void area. and the compliance report is regularly submitted to Regional office MoEF&CC, Bhubaneswar in six monthly basis. An amount of 170.73 lakhs has been deposited with the DFO, Angul, for taking up plantation in the Bhubaneswari OCP.</p>

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	Not Applicable presently. Bhubaneswari OCP is a running mine. No grazing land is involved in the core zone.
(g) Green Belt		
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 Wildlife Department.	Being complied. 1. The Site-Specific Conservation Plan / Wildlife Management Plan has been prepared and approved by PPCF Wildlife Odisha vide letter no. 2980/CWLW-FFDWC-FD-0028-2024 dated 06.03.2025. 2. The total financial outlay of 1525.14 lakhs. This amount is to be deposited in the State CAMPA fund through portal (https://parivesh.nic.in) which the Project has deposited for implementation of WLMP vide ICICR22025032608530239 Dated 26.03.2025 as per demand of DFO, Angul. 3. It is also mentioned in the approval letter that the User Agency should deposit 5% of the plan cost in the account of the "THE WILDLIFE ODISHA" maintained in the Wildlife Office towards unforeseen interventions. In compliance to the condition stipulated, the project has deposited Rs. 76.257 Lks to "THE WILDLIFE ODISHA" vide UTR ICICR22025032408459385 dated 24.03.2025. 4. The project has also deposited Rs.50 Lakhs vide challan no. 422052, dtd: 04.09.2004 with the Forest Dept. Govt. of Odisha for implementation of Habitant improvement Plan of the surrounding area. Habitant Improvement Plan has been prepared as per the FC conditions.
ii)	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.	Partially Complied. Green belt of 25.98 Ha outside the leasehold area under vacant/ safety zone comprising of native species have been planted through Odisha Forest Development Corporation. 3- Tier plantation of width not less than 7.5 mtrs, as stipulated in the condition will be developed along with green belt with mixed species all along the major haul roads and coal transport roads. Plantation has been done in an area of 6.033 Ha safety zone of 7.5 m along forest area through DFO, Angul. An amount of Rs. 1.70 Crs. Has been deposited to the state forest department for taking up biological reclamation.
(h) Public hearing and Human health issues		
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.	Being complied. Adequate illumination is being provided in all parts of the mine as per DGMS standards. and the report is being submitted on six monthly basis. (Annexure - IV)
ii)	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and	Being complied In compliance to provisions of Mines Act'1952 and DGMS circular, regular periodic health checkup of workers initially and in 5years (both contractual & departmental) and the

	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.	workers above 45years of age are subjected to health checkup in every 3 years. 20% of employees engaged in active mining are also included in the above provision. Medical examination of all the contractual workers are also conducted and no case related to occupational disease detected so far and the reports are being submitted to DGMS
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 All the persons who are working in dusty areas are provided PPE as per the requirement. monitoring is being done for compliance of the PPE usage
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 outsees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.	Being complied. The Public Hearing was held on 10.02.2009. The issues raised during Public Hearing were regarding employment, supply of drinking water, blasting vibration, plantation, and dust in pond in core zone, dust suppression & sprinkling on peripheral roads. The R&R of the land outsees are done as per the R&R policy of Govt. of Odisha.
v)	The project proponent shall follow the mitigation measures provided in this Ministry's 0M No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues 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'.	Being complied. Maximum number of mitigation measures provided in Ministry's 0M No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues 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' are being followed.
(i) Corporate Environment Responsibility		
i)	Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 30th September 2020 and based on commitment made during public consultation process for incorporating in EIA-EMP for deliberation of EAC.	Being complied.. Fund allocation for Corporate Environment Responsibility (CER) will be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 30th September 2020 and all the commitment made during public consultation process for incorporating in EIA-EMP for deliberation of EAC will be complied.
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 infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation Of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.	Being complied The company has a well laid down environmental policy approved by the MCL Board on 18.04.2019 as per CIL policy. As per the report the Company has a defined system of reporting non – compliance of environmental conditions. The policy is uploaded on MCL website .
iii)	A separate Environmental Cell both at the project and company head quarter level, with	Being complied.

	qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	A separate Environmental Cell both at the project and company head quarter level has been set up. The constituent members of the Environment Management Cell at project level are as follows. 1.R Sriram, Project Officer 2.N N Sugali, SO(Envt.) 3.Dibakar Maji, GM (Min.)/SO(P&P) 4.Manik Garg, Chief Manger /SO(Civil) 5.D K Behera, Chief Manager/PE(E&M) 6.Rajabrahma K, Project Envt Officer 7.Nagen Ku Das, Project Survey Officer Similarly Environmental Cell exists at HQ level with qualified personnel.
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 environmental 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.	Partially Complied. Action plan already prepared in EIA-EMP and year wise fund for Environmental Protection measures is also incorporated. But there is no separate bank Account. However, year wise funds are being allocated/kept for environmental activities under separate head and the report is being submitted on six monthly basis.
v)	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Being complied Environmental audit is being conducted annually by a team of persons of different disciplines from MCL HQ and in every three years third party environmental audit is being carried out as per the report. Inter area audit is being conducted by multi-disciplinary team at area level on quarterly basis and same is being put up to MCL board.
(j) Miscellaneous		
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 on 21.12.2023 in two newspapers, of which one is The Prameya newspaper in Odia language and another is English daily, The New Indian Express and in addition, this has also been displayed on the MCL website permanently.
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 Two copies of Environmental clearance have been given/submitted to local bodies of Hensmul, Khandal, Dera panchayats in addition to the Govt. offices to display the same for 30days.
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.	Being Complied All the results of monitoring data and environmental clearance conditions are displayed on the company website and updated the same on half-yearly basis.
iv)	The project proponent shall monitor the criteria pollutants level namely; PM10, S02,	Being complied.

	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.	All the monitoring data is being publicly displayed at the project office as well as the company website www.mahanadicoal.in
v)	The project proponent shall submit six-monthly 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.	Being complied. The status of the compliance of the stipulated environmental conditions will be submitted on the website of the ministry of Environment, Forest and Climate Change at Environment clearance portal.
vi)	The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues 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'.	Assured to comply The project was taking measures for control of pollution and its spread into the surrounding villages. It was also noted that coal transportation through trucks was being carried out through a dedicated coal corridor and not affecting the villages. Maximum number of mitigation measures provided in Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues 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' are being followed.
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.	Being complied. Environmental statement for each financial year in Form-V is being submitted to State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
viii)	The project authorities shall inform to the Regional Office of the MOEF&CC regarding commencement of mining operations.	Being complied. Bhubaneswari OCP is a running mine of Mahanadi Coal fields Ltd for all the information have already been given to Regional Office of the MOEF&CC regarding commencement of mining operations.
ix)	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Assured to comply. All the stipulations made by the State Pollution Control Board and the State Government will be strictly complied.
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.	Assured to comply. 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 will be strictly complied.
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.	Assured to comply.
xii)	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Assured to comply.
xiii)	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Assured to comply.

xiv)	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Assured to comply.
xv)	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Assured to comply.
xvi)	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 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 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.	Assured to comply.
6.	The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any Other competent authority may stipulate any further condition for environmental protection.	Assured to comply.
8.	Any appeal against this environmental clearance 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.	Assured to comply.
9.	The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No. 114/2014 in the matter of 'Common Cause Vs Union of India & others.	Assured to comply.

10.	The concerned State Government shall 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.	Assured to comply.
11.	This Environmental Clearance 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.	Assured to comply.

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30/1/22

**GM (Min)/ Project Officer
Bhubaneswari OCP**

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**Project Officer
Bhubaneswari OCP**

**FORMAT FOR PROVIDING PARTICULARS ON GREEN BELT/PLANTATION
UNDER F(C) ACT 1980 AND EP (ACT) 1986**

1	a) Name of the organization	Mahanadi Coalfields Limited
	b) Env. /Forest clearance order	(i) Env. Clearance accorded vide letter no. J-11015/280/2013-IA. II (M) pt. Dt.23.06.2025. (ii) Stage-II Forest clearance granted vide letter no 8(18)/2002-FCE DT. 06.12.2004. (ii) Stage-II Forest clearance granted vide letter no 8-18/2002-FC(vol) I/113241/2025 DT 30-05-2025,
2	Location, Block /Sub divn. / Dist./state	Location Talcher Block Talcher Sub division Talcher Dist: Angul State Odisha
3	Address for communication	Office of the Project Officer, Bhubaneswari OCP, Jagannath Area, P.O. Dera Colliery, Dist: Angul. 759103, Ph. 06760-269844, Extn-7285 Fax.269527
4	Existing vegetation in the area	Tropical dry deciduous open canopied forests with Sal as dominant. (Trees, Shrubs, Grass, and Liana)
(a)	Species (Trees/Shrubs/grasses/climbers)	
(b)	Major prevalent species of each type	Tree: Sala, Jamu, Kendu, Tala, Karada Shrubs: Kendu, Kakhida, Navagin Grass: Mutha, Jhadu ghasa, Khadika Liana: Achundi, Pita Alu. Etc.
5	Land coverage by the project	
(a)	Total area under the project	787.911 ha.
(b)	Area covered for basic infrastructure (roads / buildings / factory etc.)	The major break up is as under: Infrastructure: 10.933 ha. Residential Colony: 32.00 Ha Rehabilitation Site: 117.570 ha.
6	Details about natural vegetation	
(a)	Name and number of trees/species felled	10024 nos. over 68.911 ha. of forest land felled by Forests Department.
(b)	Name and number of plant species still available in the area	2519 nos. over 17.955 ha. in balance forest area.
(c)	By protecting the area will indigenous stock come up.	Yes
(d)	Extent of green belt developed	6.033 Ha. green belt has been developed on the safety zone by the forest department.

7.	Plantations required to be carried out							
(a)	Conditions of Environmental Clearance in ha./nos.	2500 plants per Ha.						
(b)	A condition of Forest (C) act clearance	Comp afforestation: 225.042 Ha. And total biological reclamation of mined out area, OB dump etc. by State Govt for which amount has already been deposited with State Govt.						
(C)	Voluntarily in ha/nos.	2500 plants per Ha.						
(d)	Details about plantation	Executed by Forest department, Orissa						
(a) Total area available for plantation in each category (Proposed) for 2023-24								
i) Green belt		ii) Dump		iii) Back filled area		iv) Road side		v) Block plantation
		-		10 Ha.		--		
b) Plantation details (Category wise and methodology used)								
Year of plantation	Species planted	Spacing			Height attained	Total area covered		Area still available(d)
2000-01	Mixed Sisoo, Gambhar, Neem, etc.	2X2 mtr			>1.2 mtr	1.6 Ha.		in 3 years
2006	Teak					20.383		
2010-11	9650 Nos							
2018-19	Native Species	2.5X2.5 mtr		>1.2 mtr	5.0 Ha			
2019-20	Native Species	2.5X2.5 mtr		>1.2 mtr	4.0 Ha			
2020- 21	Native Species	2.5X2.5 mtr		>1.2 mtr	5.0 Ha			
2021-22	Native Species	2.5X2.5 mtr		>1.2 mtr	18.0 Ha			
2022-23	Native Species	2.5X2.5 mtr		>1.2 mtr	5.0 Ha			
2023-24	Native Species	2.5X2.5 mtr		>1.2 mtr	8.0 Ha			
2024-25	Native Species	2.5X2.5 mtr		>1.2 mtr	22.45Ha (13 OB + 9.45 Road)			
c) Survival % of plantation								
Survival % of plantation	2010-11	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	
Total plantation (no)	9650	9500	12500	40000	12500	20500	50000	

	Survival (no)	7720	9200	11000	36000	11000	20100	40000
	Survival (%)	80% approx. (after 3 year) 80%						
(8)	Agency carrying out plantation and maintenance	M/s. Bhubaneswari Coal Mining Ltd.						
(9)	Financial details (year wise) Plantation wise and item wise							
	Sl	Year			Funds allocated	Expenditure made	Remarks	

2000-01	2.55 lakhs	1.6 ha. green belt.
2003-04	32.53 lakhs	Deposited with DFO, Angul as part of CA.
2004-05	170.73 lakhs	Paid to DFO, Angul towards biological reclamation as per Stage-I Forestry Clearance.
2004-05	07.59 lakhs	for maintenance of excluded forest area of 20.383Ha
2004-05	50.00 Lakhs	Deposited to DFO, Angul, Scheme for Habitat Imprv. Plan.
2005-06	28.28 Lakhs	Paid to Forest Dept. regarding Protection & Regeneration of Safety Zone.
2006-07	Nil	
2007-08	Nil	
2008-09	Nil	
2009-10	Nil	
2010-11	-	Safety zone plantation by forest department
2011-12	Nil	
2012-13	Nil	
2013-14	Nil	
2014-15	Nil	
2015-16	Nil	
2016-17	Nil	
2017-18	Nil	
2018-19	Nil	
2019-20	Nil	
2020-21	Nil	
2021-22	Nil	
2022-23	Nil	
2023-24	Nil	
2024-25	Nil	
2025-26	52.28 Lakhs	Paid to DFO Angul for Undisturbed Area Plantation Scheme of Gurjang covering 50 Ha (10,000 seedlings) Bhubaneswari Area under Talcher Range.

	186.83 Lakhs	Paid to DFO Angul for Implementation of Gap Planting, Soil & Moisture conservation activities scheme as per Stage-II FC.
10	Inspection of plantation by field experts and their comments and follow up action :	---
11	Remarks/ any other information :	----


 J. D. ...
Project Officer
 Bhubaneswar OCP