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STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit - VIII
Bhubaneswar - 751012

No. 7669 /

IND-II-CTE-7417

Date: 13.04.2025 /

Through online/
By speed post

To,

The Project Officer
Balram OCP of M/s Mahanadi Coalfields Limited
At-Danara, Tehsil: Talcher
District: Angul

Sub: Environmental Safeguards for enhancement of coal production capacity from 7.74 MTPA to 15 MTPA and increase in mining lease area from 1309 Ha and 2574 Ha, At-Danara, Tehsil- Talcher in the district of Angul.

Ref: 1. MoEF&CC, Govt. of India, Environmental Clearance vide File No. J-11015/09/2013-IA-II(M), EC Identification No- EC25A001OR198573 dtd. 24.02.2025
2. MoEF &CC, Government of India Office Memorandum, Dt. 14.01.2025 on streamlining the implementation of Notification G.S.R 702 (E) and G.S.R 703 (E) Dtd. 12-11-2024

Sir,

In consideration of the online application no. **6162544** read with MoEF&CC, Government of India Office Memorandum dtd. 14.01.2025, the State Pollution Control Board is pleased to issue Environmental Safeguards in place of its Consent to Establish under section 25 of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 for enhancement of coal production of **Balram OCP of M/s Mahanadi Coalfields Limited** from 7.74 MTPA to 15 MTPA and increase in mining lease area from 1309 Ha and 2574 Ha, At- Danara, Tehsil- Talcher in the district of Angul of Odisha with the following conditions.

A. GENERAL SAFEGUARD:

4. The proponent shall comply with the stipulations and carry out mining activity as per the Environmental Clearance granted by MoEF&CC, Govt. of India vide EC Identification No- EC25A001OR198573 dtd. 24.02.2025 of Expansion of Balram OCP (earlier known as Kalinga OCP) (with increase in mine lease area from 1309 Ha to 2574 Ha and increase in production capacity from 8 MTPA to 15 MTPA) by M/s Mahanadi Coalfields Limited, located at Villages: Nakeipasi, Brahmanbahali, Kochianali, Damal, Prasana Nagar, Nathagaon, Majhika, Kalachhuin, Danara, Natada, Banabaspur, Telipur, Solada, Satyabadipur, Gopalprasadkhamar, Khuringa and Birabarpur; District: Angul Odisha

2. The mine shall apply for grant of Consent to Operate under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 & under section 21 of Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commencement of production and obtain Consent to Operate from this Board.
3. No change in mining technology and scope of work shall be made without prior approval of the Board.
4. The mine shall obtain forest clearance for the forest land involved in mining lease area for undertaking mining operation in forest land.
5. No water body passing through the mine lease area shall be diverted. Any diversion of water body shall be governed as per the conditions of Environmental Clearance and shall be carried out only with the prior permission of the Department of Water Resources (DoWR), Government of Odisha. A copy of the permission shall be submitted to the SPCB, Odisha
6. Embankment and check dams shall be constructed wherever required, so that the surface run-off from the mining area shall not pollute the nearby water bodies. Mining shall be done at a safe distance from the nalla.
7. The proponent shall abide to the mining plan approved vide Letter No. MCL/SBP/CS/BD-226/Exct/2020/11151 dated 29.08.2020 approved by MCL Board.
8. The proponent shall abide by the Wildlife Management Plan approved by the PCCF(WL) & CWLW vide Memo no. 9783 dtd. 17.08.2024
9. The proponent shall obtain requisite permission from the Water Resources Department, Govt. of Odisha for usage of ground water and surface water.
10. The proponent shall obtain requisite permission from CGWA for dewatering of mine drainage water during mining operation.
11. The mine shall not store the coal beyond the incubation period to avoid coal fire in stock yard as well as coal seam. The mine shall take adequate preventive measures for spontaneous fire in the coal seam as well as stock yard. The management plan in this regard shall be submitted to the Board at regular half yearly interval.
12. The method of mining shall be open cast mining by shovel-dumper in overburden and surface miner with interlocking water sprinkling system, loader and tipper in coal. No change in mining technology and scope of working shall be made without prior approval of the Board.
13. Coal transportation from the mine shall be done as per prevailing guidelines of MoEF&CC Govt. of India, Mining Plan and as per the conditions governed in the Environmental Clearance.
14. A green belt of adequate width and density preferably with local species along the periphery of the mine, inactive dumps, backfilled area, vacant area and any other vacant area shall be raised so as to provide protection against particulates and noise to ameliorate the environment. Plantation shall be carried out inside mine lease area and outside mine lease as per the Environmental Clearance.
15. Adequate measures shall be taken for control of noise levels to meet the standards as per the Rule 2(1) of the Environmental (Protection) Amendment Rules, 2000 notified vide notification G.S.R. 742 (E), dated 25.09.2000.

16. A separate environmental management cell with suitable qualified personnel shall be formulated under the control of a Senior Executive, who will report directly to the Head of the organization.
17. Regular monitoring of environmental parameters such as air, water, noise, soil, ETP, STP, mine sump water etc. shall be carried out and report shall be submitted to the Board. Adequate ambient air quality monitoring stations for 24 hours operation shall be established in the core zone as well as in the buffer zone for PM₁₀, PM_{2.5}, SO₂ and NO_x monitoring. Location of the stations shall be decided based on the metrological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board
18. Construction and demolition waste shall be managed strictly in accordance with the provisions of the Construction and Demolition Waste Management Rules, 2016.
19. The proponent shall comply to the provisions of E-Waste (Management) Rules, 2022 and amendment thereafter and shall handover e-waste to registered producer/ recyclers/ re-furbishers for proper disposal of e-waste.
20. Plastic waste shall be stored in designated space and same shall be sent to authorized recyclers/ re-processors or cement kiln for co-processing.
21. Proper lighting preferably powered by solar system shall be provided along the coal transportation road to avoid the accident at night.
22. The project shall abide by Environment (Protection) Act, 1986 and the rules framed thereunder.
23. The grant of this Environmental Safeguard Order is issued in accordance with the Office Memorandum dated 14.01.2025 by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India, and is subject to compliance with any subsequent guidelines or directions that may be issued by the MoEF&CC, Govt. of India, New Delhi in this regard.

B. WATER POLLUTION SAFEGUARD:

24. An adequately designed Mine Drainage Water Treatment Plant shall be provided for treatment of mine drainage water before discharge to outside. The quality of discharged water shall meet the standards specified for Coal mines as per E (P) Amendment Rules, 2000. Effort shall be made to utilize the discharged water in various purpose of mining activity, plantation and other purpose.
25. The Mine shall utilize mine drainage water and rainwater harvesting water to reduce dependency on ground water for domestic usages.
26. Provision shall be made so that, surface run off before discharge to outside shall pass through a series of settling tanks for settling of suspended solids.
27. Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the hourly peak rainfall and maximum discharge in the area adjoining the mine area. Sump capacity shall have adequate retention period to allow proper settling of silt material.

28. Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data. The detailed proposal on this shall be submitted to SPCB before each monsoon season.
29. Catch drains of appropriate size shall be constructed to divert the runoff from the OB dump to the siltation pond of appropriate size to arrest silt and sediment flows from soil, OB and mineral dumps. Similar arrangement shall be done around the coal stack pile area. The drains shall be regularly desilted and maintained properly. Surface runoff from OB dump area, coal pile area, top soil storage area shall be routed through adequate settling pond (designed maximum hourly rainfall basis) to meet prescribed standard of SS-100 mg/l and Oil & Grease-10 mg/l before discharge into natural stream/water courses during monsoon. Adequate surface runoff management system shall be installed so that there shall not be any environmental impact on seasonal nalla.
30. Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells. The monitoring shall be done four times a year in April- May (pre-monsoon), August (monsoon), November (Post-monsoon) and January (winter) seasons and monitoring data thus collected shall be submitted to the Board quarterly.
31. The domestic wastewater generated from the township shall be treated in sewage treatment plant. The treated water shall be reused for gardening and dust suppression and the surplus water if any shall be discharged to outside after meeting the following prescribed standards as notified by the MoEF&CC, Govt. of India vide G.S.R. 1265 (E), dated 13.10.2017.

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

32. The proponent shall ensure installation of ETP of adequate capacity along with oil and grease trap for treatment of wastewater to be generated from the workshop area. The treated wastewater shall be recycled.
33. Wastewater from the mine pit, check dams or any other discharge leaving lease boundary of the mine shall be properly collected, treated so as to conform the standard of pH = 6.5-9.0, TSS = 100 mg/l, COD = 150 mg/l & Oil & Grease = 10 mg/l.
34. Rainwater harvesting practice shall be followed by utilizing the rain water collected from the roof of the buildings for recharging of ground water within the premises and other large structures as per the concept and practices prescribed by CPCB/CGWA, New Delhi.
35. The Mine shall provide mechanized wheel washing system with full body wash arrangement along with effluent treatment and recycling facilities at the exit point of the mine. Wheel washing facilities shall be provided to minimize transfer of mud from unpaved approach roads to main paved and/or public roads.
36. Bio-toilets shall be provided in the project site and in villages located within the mine lease area

C. AIR POLLUTION SAFEGUARD:

37. Transportation road shall be black topped / concreted and sustainable coal transport measures shall be adopted to minimize air pollution. Further, no road transport route shall be adopted, which is passing through any sensitive location such as schools, hospitals, villages etc.
38. Water sprinkling systems/ Mist spray system shall be provided to check fugitive emissions from crushing operations, coal stock yards, loading and unloading points, conveyor system, haulage roads, transfer points, railway sidings etc. and Fixed water sprinkler arrangement along the coal transport road/coal corridor road and mobile water tanker for quarry, haul road, internal transport road shall be provided.
39. For proposed expansion of 15 MTPA, as the belt conveyor is under construction, 12.5 MTPA (including coal from washery) shall be transported by road (through covered trucks) from pit to **Existing Railway siding at 6km for further dispatch by rail**. 2.5 MTPA coal may continue to be transported through dedicated coal transportation road. As per commitment of mine, during grant of EC construction of belt conveyor shall be completed by the 31/03/2028 and any further road transportation of coal is not permitted beyond 31/03/2028.
40. The proponent shall deploy additional mechanical road sweepers to control the fugitive dust generated on the road.
41. HD IP camera shall be installed at the coal stock yard, coal face and other mining activity areas of the mine.
42. Drills shall be wet operated and provided with dust extractors and 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.
43. The mine shall develop wind barrier wall of 10 meters height all around the coal stock yard to control fugitive coal dust generation.
44. The mine shall provide adequate number of rain guns with fine atomizer nozzles arrangement / trolley mounted and mobile Fog Cannons for coal stock heaps for dust suppression.
45. Additional three nos. of continuous ambient air quality monitoring stations (CAAQMS) (Total 4 nos.) with data transfer facility shall be established, each in the core zone as well as in the buffer zone for PM₁₀, PM_{2.5}, SO₂ and NO_x monitoring. Location of the stations shall be decided based on the metrological data, topographical features and environmentally and ecologically sensitive areas in consultation with the State Pollution Control Board.
46. The mine shall comply the following standard at the loading or unloading, haul road, coal transportation road, coal handling plant (CHP), railway siding, blasting faces, drilling faces, overburden dumps or any other dust generating external sources as per the Rule 2(1) of the Environmental Amendment Rules, 2000 notified vide notification G.S.R. 742 (E), dated 25.09.2000.

Pollutant	Time weighted average	Concentration in Ambient Air	Method of Measurement
1	2	3	4
SPM	Annual	360µg/m ³	High volume sampling (Average

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

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

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

47. The mine shall maintain the haul road as per the circular of DGMS and the haul roads and approach roads shall be maintained properly with avenue plantation.

D. SOLID & HAZARDOUS WASTE SAFEGUARD:

48. Top soil of mining area shall be stacked separately with proper slope at earmarked site (s) with adequate measures and shall be used for reclamation and rehabilitation of mined out areas as per the approved Mining Plan.
49. The overburden generated during mining operation shall be stored and utilized for backfilling as per approved mining plan. Backfilling of abandoned pit shall be carried out as per approved Mining plan and Mine closure plan.
50. The project proponent shall comply with the provisions of the Fly Ash Notification issued by the MoEF &CC, Government of India, dated 31.12.2021, and any subsequent amendments as applicable to coal mines. The proponent shall undertake backfilling of mine voids using fly ash and/or mixing of fly ash with overburden (OB) material, in accordance with the MoEF &CC's O.M dated 28.08.2019. The compliance status in this regard shall be submitted to the SPCB, Odisha, on half yearly basis.
51. Hazardous waste and ETP sludge shall be stored under covered shed on concrete platform. These shall be disposed to authorized CHWTSDF/recycler.
52. Municipal solid waste generated from the township shall be disposed off as per Solid Waste Management Rules, 2016. Intermediate storage area for Municipal Solid Waste (MSW) shall be developed inside the premises of township before handing over the MSW to the concerned ULBs for final disposal.
53. The Project proponent shall obtain authorization under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 as amended from time to time and dispose of the hazardous waste as per the authorization.


13/4/2025
MEMBER SECRETARY

Memo No. _____ / **Date:** _____ /

Copy forwarded to the Member Secretary, Ministry of Environment, Forest and Climate Change, Government of India (IA Division), At- Indira Paryavaran Bhawan, Jorbagh Road, New Delhi – 110003 for information. This letter for Environmental Safeguard is issued in compliance with Office Memorandum dtd. 14.01.2025 of MoEF&CC, Government of India for streamlining the implementation of Notification G.S.R 702 and G.S.R 703 Dt. 12th Nov 2024 (Para-E: Projects which have been already been granted EC after 12th November 2024 but for which CTE has not been granted)

ADDL. CHIEF ENV. ENGINEER

Memo No. _____ / **Date:** _____ /

1. The Collector and District Magistrate, Angul
2. The DDM, Talcher
3. The Regional Officer, SPC Board, Odisha, Angul
4. Consent to Operate Cell (Mines), SPC Board, Odisha, Bhubaneswar
5. Hazardous Waste Management Cell, SPC Board, Odisha, Bhubaneswar
6. Guard file

ADDL. CHIEF ENV. ENGINEER

