



MCL



MAHANADI COALFIELDS LIMITED
Office of the Project Officer
Lajkura Opencast Project, IB Valley Area
(A Government of India Enterprise)
PO: Brajrajnagar Dist: Jharsuguda
Pin-758216 (Odisha)

Ref. No. MCL/IBV/LOCP/PO/Env/2025-26/ 40

DT: 23/09/2025

To,
The General Manager (Env.)
MCL, HQ, Burla

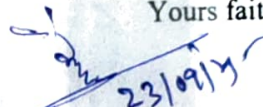
Subject: Submission of Environmental Statement (Form-V) for the financial year 2024-25 in respect of Lajkura OCP.

Dear Sir,

Please find enclosed herewith Environmental Statement (Form-V) for the financial year 2024-25 in respect of Lajkura Opencast Project for further action at your end.

Thanking you

Yours faithfully


23/09/25
Project Officer/General Manager (Min.)
Lajkura O.C.P. IB Valley Area

Copy to: -

1. Staff Officer (Env & Forest), IB Valley Area
2. Office File.

FORM-V
ENVIRONMENTAL STATEMENT

Environmental statement for the financial year ending 31stMarch, 2025

Part - A

- i) Name & Address of the owner/ occupier :P.K. Mishra, Project Officer
Of the industry operation or processLajkuraOpen Cast Project
(Name of the Project Officer/ Sub-Area Post- Lamtibahal, Brajrajnagar
Manager & Office address to be given)Dist- Jharsuguda,Odisha.
- ii) Industry Category : Primary (Coal Mining Operation)
- iii) Production Capacity (Coal production) :4.5MTY (Production 4.5MT during2024-25)
- iv) Year of establishment : 1984
- v) Date of the last Environmental Statement submitted :30.09.2024

Part - B

Water & Raw Material Consumption

Note: Average Water Consumption (Cu-m/ day) for the whole year is given. Raw material consumption is given per unit of coal produced.

(I) Water Consumption (Cu-m/ day):

Ser No.	Industrial/ Mining	Consumption in kl / day
1.a	Haul and Transport Road Dust Suppression	890
b	Dust Suppression at CHP	31
c	Dust Suppression at Siding	105
d	Fire Fighting	51
e	Workshop	30
f	Others	23
g	Surface Miner Operation	47
2.	Domestic	300
3.	Total in kl /day	1477

Name of the Product	Water Consumption per unit of product (ℓ/ t)	
	2023-24	2024-25
Coal (production 2021-22-4.5 MT)	112.25	119.80

Raw Material Consumption (per tonne of coal):

Name of Raw Material	Consumption of Raw Material (per tonne of Coal produced)	
	2023-24(Dept+Cont)	2024-25(Dept+Cont)
H.S. Diesel (ℓ/ t)	2.285	1.957
Petrol (ℓ/ t)	Nil	Nil
Lubricants (ℓ/ t)	0.024	0.0225
Electricity (Units/ t)	1.967	1.577
Explosives (kg/ t)	1.272	1.284

Part - C

Pollution Discharged to Environment/ Unit of Output

(Parameter as specified in the 'Consent' issued)

Pollutants	Quantity of pollutants discharged (mass/ day)	Average Concentrations of pollutants in discharges (mass/ volume)			
Water (annual average)					
		Mine Effluent	OGT Outlet	STP Outlet	
TSS (mg/ℓ)	Not possible to quantify	35	44.05	36	Within permissible limit
BOD mg/ℓ)		<2	--	<2	
COD (mg/ℓ)		32	44.40	--	
pH		7.36	5.72	7.02	
O & G (mg/ℓ)		<4	<4	--	
Air (Ambient air quality of one station - annual average) , Mine Station No.1 (NW)					
SPM (μg/m ³)	Not possible to quantify	240			Within permissible limit.
RPM (μg/m ³)		NA			
SO ₂ (μg/m ³)		14.66			
NO _x (μg/m ³)		21.53			
PM 2.5(μg/m ³)		60.64			
PM 10(μg/m ³)		130.17			

Part - D

Hazardous Wastes

As specified under Hazardous Wastes (Management & Handling) Rules, 1989.

Hazardous Waste	Total Quantity (kg)	
	During the previous financial year (2023-24)	During the current financial year (2024-25)
(a) From process		
i. Burnt Oil in Workshop	22510	26460 litre
ii. Oil soaked filters	454	478
(b) From pollution control facilities		
i. Oil/Oil emulsion recovery from Oil & Grease Trap)	220	239
ii. Oily sludge	41 m ³	44 m ³
iii. Chemical Waste (if any)	Nil	Nil

Part - E
Solid Wastes (other than hazardous)

Particulars	Total Quantity	
	During the previous financial year (2023-24)	During the current financial year (2024-25)
(a) From process (Top soil and Over burden)	12.82 Mm ³	11.54 Mm ³
(b) From pollution control facilities (STP & Sed-Pond Sludge)	Nil	Nil
(c) 1- Quantity recycled or re-utilized (OB back-filled)	11.81 Mm ³	11.47 Mm ³
2- Sold	Nil	Nil
3- Disposed	Nil	Nil

Part - F

Please specify the characteristics (in terms of concentration & quantum) of hazardous as well as solid waste and indicate the disposal practice adopted for both these categories of wastes.

(I) Hazardous Wastes:

Name of Hazardous Wastes	Quantity generated in the year 2023-24	Disposal Practices
Burnt Oil, etc. (ℓ) (from W/Shop)	26460 lit.	Deposited at Regional Store, IBVA wherefrom it is to be auctioned to authorized parties.
Oil soaked filters(kg) (from w/shop)	478 nos.	Disposed into impervious lined pit.
Oil & Grease (kg) (from ETP/ OGT)	239 litre	Deposited at Regional Store, IBVA wherefrom it is to be auctioned to authorized parties.
Oily Sludge (tonne.) (from ETP/ OGT)	44 m ³	Disposed into impervious lined pit.
Oil Emulsion	Nil	
Chemical Waste if any (kg)	Nil	
Battery (nos.)	Nil	Deposited at Regional Store, IBVA wherefrom it is to be auctioned to authorized parties.

(II) Solid Wastes:

Solid Waste	Quantity generated in the year 2024-25	Disposal Practices
Top soil (m ³)	0.07 Mm ³	The Top soil generated & spread over the slope of internal Dump. Out of 11.54 Mm ³ , 11.47 Mm ³ was used for backfilling of quarry voids.
OB (m ³)	11.47 Mm ³	
STP & Sed-Pond Sludge	Nil	-

Land Reclamation & OB disposal - progressive till March, 2025:

	Area (ha.)	OB Volume/ Nos. of Plants
1) External OB dump	60.58	14.018 Mm ³ (Plantation- Nil)
2) Excavated land	292.71	166.456 Mm ³
3) Land affected (1+2)	353.29	-
4) Backfilled (out of 2)	177.54	163.988 Mm ³
5) Land physically reclaimed (out of 3)	51.23	
6) Land biologically reclaimed (out of 3)	84.53(including Ext. OB dump)	206325 nos.

Part - G

Impact of pollution control measures on conservation of natural resources and consequently on cost of production.

In order to carry out mining in an eco-friendly manner, a detailed Environmental Management Plan (EMP) was prepared by Regional Institute-VII of CMPDIL. The main Pollution control measures suggested in EMP along with the measures implemented so far have been summarized in the Table-1.1 to 1.3.

Table - 1.1
Air Pollution Control Measures

Sl. No.	EMP Provisions	Whether provided or not	Remarks
1	Watering and grading of all roads to minimize air-borne dust from vehicles.	Provided	4 nos. of 28 KL capacity water Tanker and 3 nos. of 9/12 KL outsourced sprinklers are deployed. Additionally, 7 nos. of fixed water sprinklers are being installed along Siding-III & CHP for effective dust control.
2	Biological reclamation of land.	Provided	
3	Green belt around infrastructures & mine.	Provided	Systematic plantation of saplings is undertaken around the mine premises to strengthen green cover.
4	Drills fitted with dust control devices.	Provided	All drill machines are equipped with wet drilling arrangements and fitted with dust collectors for effective suppression.
5	Dust suppression/ dust extraction system to be provided in CHP.	Provided	3 nos of Continuous fixed water spraying arrangement has been provided for dust suppression in CHP.
6	Improved maintenance of plant & machinery.	Provided	Plants and machineries are maintained regularly as per checklist and preventive maintenance schedule.
7	Mechanized coal transportation system.	Provided	Coal transportation is being carried out through mechanized arrangements as envisaged in the EMP.

Table - 1.2
Water Pollution Control Measures

Sl. No	EMP Provisions	Whether provided or not	Remarks
1	Mine water is to be collected in central sump on dip side of pit. This will act as sedimentation lagoon.	Provided	Mine water is collected in two sumps (North & South), which function as sedimentation lagoons.
2	Run-off around reclamation area will be controlled by providing catch drains and sedimentation lagoon combination.	Provided	Garland drains are constructed at the top and toe of reclaimed dumps, connected to mine sumps. Water is then treated at MDTP and reused.
3	Surface run-off from external dump would be collected through a series of contour drains which would be connected to a water retention pond. The clear water from this pond will be re-utilised.	Provided	Drains are present at the toe of external dumps are connected to MDTP where water is treated and reused.
4	Domestic wastewater will be treated in screens, oxidation pond/ aerated lagoon. Sanitary waste to be disposed off into septic tank & soak-pit.	Provided	Septic tank and soak pit provided. Additionally, an STP of 0.5 MLD capacity is operational.
5	Workshop effluents will be treated in oil & grease trap & sedimentation tank.	Provided	Workshop effluents are routed through oil & grease traps followed by sedimentation tanks for treatment.
6.	Zero discharge from mine shall be maintained.	Maintained	Mine maintains zero-discharge standard; treated water is reused in mining operations.
7.	Piezometers shall be installed for measurement of under-ground water depth and its quality.	Provided	Piezometer installed at MIP-04 (near Jamkani High School, Gumadera, Lajkura OCP).

Table - 1.3
Land Reclamation

Sl. No.	EMP Provisions	Whether provided or not	Remarks
1	Top soil Management: Proper stripping, Storage, and Relocation of top soil.	Provided	
2	Physical Reclamation of OB Dump: Proper reshaping and regarding of top surface, Providing drainage arrangements and top soil spreading for external and internal dumps.	Provided	Proposal for heightening of dump is under study by CMPDIL. Reclamation activities have commenced from the slope, with topsoil being simultaneously spread. Once the dump attains its final height, technical reclamation will be carried out in line with the approved guidelines.
3	Biological Reclamation: Plantation of suitable species of herbs, shrubs & indigenous trees over technically reclaimed dumps.	Provided	Plantation has been carried out over technically reclaimed areas.

IMPACT OF POLLUTION CONTROL MEASURES ON COST OF PRODUCTION

COST OF ENVIRONMENTAL MANAGEMENT DURING 2024-25 was Rs. 52.36 per tonne of Coal.

Part - H

Additional measures/ investment proposal for environmental protection including abatement of pollution, prevention of pollution.

Head	Amount Rs. (approx)
Biological reclamation	119
Dust suppression	818.20
Cleaning	21.45
Environmental Monitoring	281.05
Other fee	86.31
Operation & maintenance of Pollution control measures	77.25
Miscellaneous	953.27
Total	2356.53 Lakh

Part - I

Any other particulars for improving the quality of the environment.

Note: Please attach a plan showing the relevant features like Present Working/ Quarry, External Dump, Back-filling, Plantation, Sedimentation Pond/ MDTP, Oil & Grease Trap/ ETP, Workshop, CHP, STP, etc. and Environmental Monitoring Stations.


Signature of the Project Officer,
Lajkura OCP

IMPACT OF POLLUTION CONTROL MEASURES ON COST OF PRODUCTION

COST OF ENVIRONMENTAL MANAGEMENT DURING 2024-25 Rs. 52.36 per tonne of Coal.

Sl. No.	Particulars	Expenditure (Rs. In Lakh)
1	Operation, Maintenance & Cleaning of ETP, MDTP, and STP	77.25
2	REM	281.05
3	Wheel Washing System	6.14
4	Dust suppression by water sprinkler (Cont.)	179.00 (Outside ML) + 400.06 (Inside ML)
5	Dust suppression by water sprinkler (Dept.)	239.14
6	Drain Cleaning	15.31
7	Road Repairing	16.78
8	Plantation (including urban tree plantation)	119
9	Water Tax & Statutory fee	86.31
10	Envt. Week Celebration	0.70
11	Reclamation (Cont.+ Dept.)	935.85
	Total	2356.53

Production of coal in 2024-25 = 4.5 MT


Project Officer
Lajkura OCP

