

ENVIRONMENTAL STATEMENT

(Form – V)

*Under Rule – 14 of Environment Protection Rules, 1986
and Amendment, 1993
of*

Kaniha Area, MCL

For the year 2024-25



MCL

Mahanadi Coalfields Ltd.

Post: Jagruti Vihar, Burla,

Dist: Sambalpur, Orissa-768020

ENVIRONMENTAL STATEMENT

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*Under Rule – 14 of Environment Protection Rules, 1986
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of*

Kaniha Opencast Mine

For the year 2024-25



MCL

Mahanadi Coalfields Ltd.

Post: Jagruti Vihar, Burla,

Dist: Sambalpur, Orissa-768020

FORM-V

ENVIRONMENTAL STATEMENT

Environmental statement for the financial year ending 31st March, 2025

Part – A

- i) Name & Address of the owner/ occupier : Sri Parmananda Guin
of the industry operation or process : Project Officer, KOCP
(Name of the Project Officer/ Sub-Area : P.O: Kaniha
Manager & Office address to be given) : Dist: Angul, Odisha
- ii) Industry Category : Primary (Coal Mining Operation)
- iii) Production Capacity : 14 MTPA
(Coal production during the year 2024-25) : 10.85 MT
- iv) Year of establishment : 24.11.2010
- 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 Cu-m/ day
1. a	Haul Road Dust Suppression	1020
b	Dust Suppression at CHP	-
c	Dust Suppression at Siding	2663
d	Fire Fighting	186
e	Workshop	07
f	Others (Plantation)	04
2.	Domestic	-
3.	Total in kℓ/ day	3880

Name of the Product	Water Consumption per unit of product (ℓ/ t)	
	2023-24	2024-25
Coal	87.91	130.52

(II) 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)	0.967L/te	1.023 L/te
Petrol (l/ t)	Nil	Nil
Lubricants (l/ t)	0.0067 L/te	0.0010 L/te
Electricity (Units/ t)	0.078 Unit/te	0.113 Unit/te
Explosives (kg/ t)	0.120 Kg/te (Only Dept)	0.168 Kg/te (Only Dept)

Part - C

Pollution Discharged to Environment/ Unit of Output

(Parameter as specified in the 'Consent' issued)

Pollutants	Quantity of pollutants discharged (mass/ day)	Concentrations of pollutants in discharges (mass/ volume)			Percentage variation from prescribed standards with reasons
		Mine Effluent	OGT Outlet	STP Outlet	
Water (annual average)					
TSS (mg/l)	Not possible to quantify	38.75	NA	NA	All data are within permissible limit.
BOD mg/l)		<2.00	NA	NA	
COD (mg/l)		30.33	NA	NA	
pH		7.37	NA	NA	
O&G (mg/l)		<4.00	NA	NA	
Air (Ambient air quality of one station - annual average)					
New Time Office/Near Z-Patch					
PM _{2.5} (µg/m ³)	Not possible to quantify	134.83			All data are within permissible limit.
PM ₁₀ (µg/m ³)		61.13			
SO ₂ (µg/m ³)		13.96			
NO _x (µg/m ³)		21.73			

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 Workshops	12.70T	16.79 T
ii. Oil soaked filters	1.85T	2.153 T
(b) From pollution control facilities:		
i. Oil/ Oil Imulsion recovery from Oil & Grease Trap	-	-
ii. Oily sludge	-	-
iii. Chemical Waste(if any)	-	-

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)	6.519 (OBR)+0.615 (RH)+0.025 (Reject) = 7.159 Mm ³	6.576 (OBR)+ 0.52 Mm ³ (Top Soil) = 7.096 Mm ³
(b) From pollution control facilities (STP & Sed-Pond Sludge)	NIL	Nil
(c) 1- Quantity recycled or re-utilized (OB back-filled)	4.442 Mm ³	3.630 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 2024-25	Disposal Practices
Burnt Oil, etc. (ℓ)(from W/Shop)	11,39,000 Liters	Being sent to Authorized Recyclers at regular intervals (7.29 KL sold during 2024-25)
Oil soaked filters(kg) (from W/Shop)	303 Kg	Stored in impervious pit
Oil & Grease (kg)(from ETP/ OGT)	-	-
Oily Sludge (te.) (from ETP/ OGT)	-	-
Oil emulsion	-	-
Chemical Waste if any (kg)	-	-
Battery (nos.)		Stored

Note: A detailed note on disposal practices of the above should be given separately.

(II) Solid Wastes:

Solid Waste	Quantity generated in the year 2024-25	Disposal Practices
Top Soil (m ³)	0.52 Mm ³	Stored separately for use in future reclamation.
OB (m ³)	6.576 Mm ³	3.159 Mm ³ kept in External OB dump and 3.417 Mm ³ dumped in backfilling area.
STP & Sed-Pond Sludge	NIL	-

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

	Area (ha.)	OB Volume/ Nos. of Plants
1) External OB dump	105.54	37.07 Mm ³
2) Excavated land	228.83	53.75 Mm ³
3) Land affected (1+2)	334.37	-
4) Backfilled (out of 2)	27.69	16.694 Mm ³
5) Land physically reclaimed (out of 3)	NIL	-
6) Land biologically reclaimed (out of 3)	NIL	-

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	Water sprinkling and grading of all roads to minimize air-borne dust from vehicles.	Provided	Water sprinkling is done by 04 no. of 12KL mobile Fog Canon, 03 no. of ground mounted fog cannons & two no. of 12 KL mobile water tankers.
2	Biological reclamation of land.	Not Provided	Dumps are active in nature
3	Green belt around mine & infrastructures.	Provided	By plantation along mine lease boundary & infrastructure
4	Drills fitted with dust control devices.	Provided	
5	Dust suppression/ dust extraction system to be provided in CHP.	CHP does not exist so far.	
6	Improved maintenance of plant & machinery.	Maintained	Scheduled maintenance is being carried out.
7	Mechanized coal transportation system.	Provided	

Table – 1.2
Water Pollution Control Measures

Sl. No.	EMP Provisions/ Additional precautions	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	Tender under finalization for additional 01 no. of sedimentation tank/pond near site old office
2	Run-off around reclamation area will be controlled by providing catch drains and sedimentation lagoon combination.	Provided	catch drains and sedimentation lagoon has been provided around the periphery of the mine
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	Mine sump acts as water reservoir.
4	Domestic waste water will be treated in screens, oxidation pond/ aerated lagoon. Sanitary waste to be disposed off into septic tank & soak-pit.	Not Applicable	Colony not yet constructed
5	Workshop effluents will be treated in oil & grease trap & sedimentation tank.	Provided	Workshop effluent is being treated.
6	Zero discharge from mine shall be maintained.	Maintained	Sedimentation tank/Water bodies have been developed to store and reuse the water generated from the mine
7	Piezometers shall be installed for measurement of under-ground water depth and its quality	Provided	Piezometer MTP 19 & 20) installed at Gologhar sahi Primary school and old site office of KOCP respectively.

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	Dumped in a separate specified area and preserved by plantation of leguminous plant.
2	Physical Reclamation of OB Dump: Proper reshaping and re-grading of top surface, Providing drainage arrangements and top soil spreading on external and internal dumps.	Not Provided	Presently all dumps are active.
3	Biological Reclamation: Plantation of suitable species of herbs, shrubs & indigenous trees over technically reclaimed dumps.	Not Provided	Presently all dumps are active.

IMPACT OF POLLUTION CONTROL MEASURES ON COST OF PRODUCTION

COST OF ENVIRONMENTAL MANAGEMENT DURING 2024-25 was Rs.5.03 per tonne of Coal.

Part - H

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

Head	Amount Rs. (approx)
Cleaning of dust along CT Road	45,00,000.00
Procurement of Fog Canon/Atomizer	55,00,000.00
Plantation	2,00,00,000.00
Routine Environmental monitoring	1,80,00,000.00
Fire Fighting	35,00,000.00
Repair & Maintenance of garland drain	30,00,000.00
Wheel washing System	10,00,000.00
Operation and maintenance of fixed sprinklers	25,00,000.00
Installation of fixed type fog canon at siding	25,00,000.00
Supply of water to peripheral villages	45,00,000.00
Statutory Fees	56,00,000.00
Installation of Wind barrier at new coal stockyard	4,15,83,000.00
TOTAL	10,76,83,000.00

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

(with seal)

परियोजना अधिकारी/Project Officer
कानिहा औसोयी/Kaniba OCP

