

# **ENVIRONMENTAL STATEMENT**

**(Form – V)**

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

*of*

## **Balaram 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 31<sup>st</sup> Mar, 2025**

**Part – A**

- i) Name & Address of the owner/occupier : S. Venkatesan  
of the industry operation or process : Project Officer (Balram OCP)  
(Name of the Project Officer/ Sub-Area : P.O – Danara, Talcher  
Manager & Office address to be given) : Dist: Angul, Odisha  
Pin: 759148
- ii) Industry Category : Primary (Coal Mining Operation)
- iii) Production Capacity (Coal production :  
During the year 2024-25) : 8 MTPA (6.514 Million tonne)
- iv) Year of establishment : 1991
- v) Date of the last Environmental :  
Statement submitted. : 30<sup>th</sup> September, 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	1336
b	Dust Suppression at CHP	0
c	Dust Suppression at Siding & Coal Stocks	2520
d	Fire Fighting	28
e	Workshop	50
f	Others	22
2.	Domestic	1259
3.	<b>Total in kℓ/ day</b>	<b>5215</b>

Name of the Product	Water Consumption per unit of product (ℓ/ t)	
	2023-24	2024-25
Coal	229.94	292.18

**(II) Raw Material Consumption (per tonne of coal):**

Name of Raw Material	Consumption of Raw Material (per tonne of Coal produced)	
	2023-24	2024-25
H.S. Diesel (ℓ/ t)	1.36	1.41
Petrol (ℓ/ t)	Nil	Nil
Lubricants (ℓ/ t)	0.016	0.019
Electricity (Units/ t)	1.897	1.196
Explosives (kg/ t)	0.328	0.431



**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
<b>Water (annual average)</b>					
		Mine Effluent	OGT Outlet	STP Outlet	
TSS (mg/l)	Not possible to quantify	20.00	42.00	39.00	Within Prescribed Limit
BOD mg/l)		-	-	<2.00	
COD (mg/l)		16.00	28.00	-	
pH		8.09	8.12	7.10	
O & G (mg/l)		<4.00	<4.00	-	
<b>Air (Ambient air quality of one station - annual average): Near Project Office</b>					
SPM ( $\mu\text{g}/\text{m}^3$ )	Not possible to quantify	253.00			Within Prescribed Limit
PM <sub>10</sub> ( $\mu\text{g}/\text{m}^3$ )		148.00			
PM <sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ )		63.00			
SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )		11.84			
NO <sub>x</sub> ( $\mu\text{g}/\text{m}^3$ )		32.11			

**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	44055 Ltr	30730 Ltr
ii. Oil soaked filters	210 Nos	181 Nos
(b) From pollution control facilities:		
i. Oil/ Oil Imulsion recovery from Oil & Grease Trap	1.31 KL (Oil)	0.91 KL (Oil)
ii. Oily sludge	51 tonne (Oily Sludge)	21 tonne (Oily Sludge)
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)	17.00 Mm <sup>3</sup>	9.04 Mm <sup>3</sup>
(b) From pollution control facilities (STP & Sed-Pond Sludge)	29.34 m <sup>3</sup>	27.25 m <sup>3</sup>
(c) 1- Quantity recycled or re-utilized (OB back-filled)	17.00 Mm <sup>3</sup>	9.04 Mm <sup>3</sup>
2- Solid	----	----
3- Disposed	----	----

**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)	30730 Ltr	By Auction to authorized parties
Oil soaked filters(kg) (from W/Shop)	181 Nos	Disposed off in impervious lined pit
Oil & Grease (kg) (from ETP/ OGT)	910 L (Oil)	By Auction to authorized parties
Oily Sludge (te.) (from ETP/ OGT)	21 tonne (Oily Sludge)	Disposed off in impervious lined pit
Oil Imulsion	Nil	---
Chemical Waste if any (kg)	Nil	---
Battery (nos.)	55 Nos	By Auction to authorized parties

**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 <sup>3</sup> )	24000 m <sup>3</sup>	Spread over OB dump for reclamation
OB (m <sup>3</sup> )	9.016 Mm <sup>3</sup>	Used to fill the quarry voids
STP & Sed-Pond Sludge	27.25 m <sup>3</sup>	Used as manure

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

	Area (ha.)	OB Volume/ Nos. of Plants
1) External OB dump	50.82	11.28 Mm3
2) Excavated land	530.31	230.40 Mm3
3) Land affected (1+2)	581.13	-----
4) Backfilled (out of 2)	348.65	219.12 Mm3
5) Land physically reclaimed (out of 3)	175.71	-----
6) Land biologically reclaimed ( out of 3). *includes 26.52 Ha external OB dump biologically reclaimed area	134.37	3,35,925 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	Water sprinkling and grading of all roads to minimize air-borne dust from vehicles.	Provided	
2	Biological reclamation of land.	Provided	
3	Green belt around mine & Infrastructures.	Provided	
4	Drills fitted with dust control devices.	Provided	
5	Dust suppression/ dust extraction system to be provided in CHP.	Provided	
6	Improved maintenance of plant & machinery.	Provided	By scheduled maintenance
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	
2	Run-off around reclamation area will be controlled by providing catch drains and sedimentation lagoon combination.	Provided	
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	
4	Domestic waste water will be treated in screens, oxidation pond/ aerated lagoon. Sanitary waste to be disposed off into septic tank & soak-pit.	Provided	STP provided for Balram Colony.
5	Workshop effluents will be treated in oil & grease trap & sedimentation tank.	Provided	
6	Zero discharge from mine shall be maintained.	Maintained	
7	Piezometers shall be installed for measurement of under-ground water depth and its quality	Provided	<b>MTP-10</b> Inside the premises of Danara High School. <b>MTP-12</b> In Betianalli village, opposite to sindhu deori's house. <b>MTP-13</b> .Inside the premise of Ambapal Natarha high school. <b>MTP -17</b> . Inside the premises of market building (through gramın rojgar yojna, Kandhaberani village

**Table – 1.3  
Land Reclamation**

Sl. No.	EMP Provisions	Whether provided or not	Remarks
1	<b>Top soil Management:</b> Proper stripping, Storage, and Relocation of top soil.	Provided	
2	<b>Physical Reclamation of OB Dump:</b> Proper reshaping and regrading of top surface, Providing drainage arrangements and top soil spreading on external and internal dumps.	Provided	
3	<b>Biological Reclamation:</b> Plantation of suitable species of herbs, shrubs & indigenous trees over technically reclaimed dumps.	Provided	

**IMPACT OF POLLUTION CONTROL MEASURES ON COST OF PRODUCTION**

COST OF ENVIRONMENTAL MANAGEMENT DURING 2024-25 was Rs.10.77 per tonne of Coal.

**Part – H**

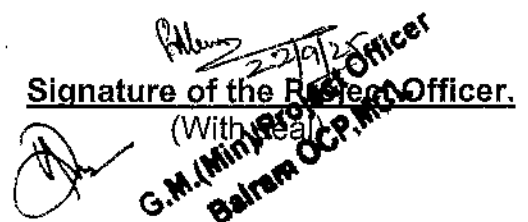
Additional measures/ investment proposal for environmental protection including abatement of pollution, prevention of pollution.

Head	Amount Rs. (approx)
ETP/STP Operation /Maintenance	25,00,000
Tree plantation	80,00,000
Environmental Monitoring	2,50,00,000
Catch/Garland drain	3,00,000
Mobile & fixed water sprinklers and other dust suppression measures	30,00,000
Road Repairing	40,00,000
Maintenance of Continuous Ambient Air Quality Monitoring Station	3,00,000
<b>Total</b>	<b>4,31,00,000</b>

**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)  
 G.M. (Min) Baram OCP, Muz.

