

FORM-V
ENVIRONMENTAL STATEMENT

Environmental statement for the financial year ending 31st March, 2024

Part -A

i) Name & Address of the owner/occupier of the industry operations or process (Name of the Project Officer/Sub-Area Manager & Officer address to be given)	Virendra Kumar Singh, Project Officer. Integrated Lakhanpur-Belpahar-Lilari Opencast Project, P.O. Jorabaga, Via – Belpahar, Jharsuguda, Odisha (768217)
ii) Industry Category	Primary (Coal Mining Operations)
iii) Production Capacity (Coal Production during the year 2023-24)	40.0 MT (6,99,995.27 Tons)
iv) Year of establishment	2024(The project has started its operations on 27.03.2024)
v) Date of last Environmental Statement submitted	The project has started its operations on 27.03.2024

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	7371
b	Dust Suppression at CHP	Nil (No CHP)
c	Dust Suppression at Siding	3527
d	Fire Fighting	836
e	Workshop	373
f	Others	154
2.	Domestic	379
3.	Total in kl/ day	12640

Name of the Product	Water Consumption per unit of product (l/ t)	
	2022-23	2023-24
Coal	----	90.28

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

Name of Raw Material	Consumption of Raw Material (per tonne of Coal produced)	
	2022-23	2023-24
H.S. Diesel (l/t) (dept. +cont.)	The project has started its operations on 27.03.2024	0.93
Petrol (l/t)		--
Lubricants (l/t) (dept. +cont.)		0.0072
Electricity (Units/t) (dept. +cont.)		0.34
Explosives (kg/t)		0.56

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
Water (annual average of Lakhanpur OCP, Belpahar OCM and Lilari OCP)			
	Not possible to quantify	Outlet of ETP	Within standard limits
TSS (mg/l)		41.28	
BOD mg/l)		--	
COD (mg/l)		32.14	
pH		7.14	
O & G (mg/l)		<4.0	
Air (annual average of Lakhanpur OCP, Belpahar OCM and Lilari OCP)			
PM _{2.5} (µg/m ³)	Not possible to quantify	48.26	Within standard limits
PM ₁₀ /RPM (µg/m ³)		120.62	
SPM (µg/m ³)		214	
SO ₂ (µg/m ³)		14.47	
NO _x (µg/m ³)		16.22	

Part – D

Hazardous Wastes

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

Hazardous Waste	Total Quantity (kg)	
	During the financial year 2022-23	During the financial year 2023-24
(a) From process:		
i. Burnt Oil in Workshops	NA	Nil

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ii. Oil-soaked filters	NA	Nil
(b) From pollution control facilities:		
i. Oil/ Oil emulsion recovery from Oil & Grease Trap	NA	Nil
ii. Oily sludge	NA	Nil
iii. Chemical Waste (if any)	NA	Nil

Part – E
Solid Wastes (other than hazardous)

Particulars	Total Quantity	
	During the financial year 2022-23	During the financial year 2023-24
(a) From process (Top soil and Over burden)	NA	Nil
(b) From pollution control facilities (STP)	NA	Nil
Sedimentation pond sludge	NA	Nil
(c) 1- Quantity recycled or re-utilized (OB back-filled)	NA	Nil
2- Sold	NA	Nil
3- Disposed	NA	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)	Nil	Stored in barrels under covered shed and sold to authorized recyclers through auction.
Oil-soaked filters(kg) (from W/Shop)	Nil	Excess oil is removed from filters and Stored under covered shed and sold to authorized recyclers through auction.
Oil & Grease (kg) (from ETP/ OGT)	Nil	Collected and Stored in barrels under covered shed and sold to authorized recyclers through auction.
Oily Sludge (te.) (from ETP/ OGT)	Nil	Dried off in bed and disposed in impervious lined pit
Oil imulsion	Nil	Not applicable

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Chemical Waste if any (kg)	Nil	Not applicable
Battery (nos.)	Nil	Stored in separate battery storage room and sold to authorized recyclers

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

(II) Solid Wastes:

Solid Waste	Quantity generated in the year 2023-24	Disposal Practices
Top Soil (m ³)	Nil	Spread over the backfilled area
OB (m ³)	Nil	Used for backfilling of quarry voids
STP & Sed-Pond Sludge	Nil	Used as manure

Land Reclamation & OB disposal – progressive till March, 2024:

	Area (ha.)	OB Volume/ Nos. of Plants
1) External OB dump	Integrated Lakhanpur-Belpahar-Lilari Opencast Project is an amalgamation of Lakhanpur OCP, Belpahar OCM and Lilari OCP for which overburden dumps and backfilled area will be re-handled. The project has started its operations on 27.03.2024	
2) Excavated land		
3) Land affected (1+2)		
4) Backfilled (out of 2)		
5) Land physically reclaimed (out of 3)		
6) Land biologically reclaimed (out of 3)		

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

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1	Water sprinkling and grading of all roads to minimize air-borne dust from vehicles.	provided	A total of 278 fixed sprinklers, 14 fixed mist cannons, 15 truck mounted mobile fog cannons have been installed along the dust generating sources. Graders have been deployed on haul roads.
2	Biological reclamation of land.	provided	The project has started its operations on 27.03.2024. Progressive biological reclamation is being carried as per the approved mine plan and mine closure plan of the project.
3	Green belt around mine & infrastructures.	Provided	Dense plantation have been developed around the mine boundary
4	Drills fitted with dust control devices.	Not applicable	Dust extractor have been provided
5	Dust suppression/ dust extraction system to be provided in CHP.	Not Applicable	CHP closed
6	Improved maintenance of plant & machinery.	Not Applicable	Scheduled maintenance is being carried out
7	Mechanized coal transportation system.	Under construction	Mechanised Silo Loading facility of 10.0 MTPA capacity have been constructed. Further, tender for Silos of 20.0 MTPA capacity have been finalised. At present around 80% coal is dispatched through rail mode.

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	Quarry void is used as mine sump storage
2	Run-off around reclamation area will be controlled by providing catch drains and sedimentation lagoon combination.	Provided	Garland drains have been provided channelized to mine sumps
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	Garland drains and catch drains have been provided channelized to mine sumps
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	A Sewage Treatment Plant of 1.70 MLD capacity has been provided at Integrated Township of the project.
5	Workshop effluents will be treated in oil &	Provided	2 ETP's of 240 m ³ /day and one

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	grease trap & sedimentation tank.		ETP of 50 KLD has been renovated with state art of technology
6	Zero discharge from mine shall be maintained.	Maintained	Mine water is being stored and used for various mining activities.
7	Piezometers shall be installed for measurement of under-ground water depth and its quality	Provided	04 nos. of Piezometers have been provided.

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.		Integrated Lakhanpur-Belpahar-Lilari Opencast Project is an amalgamation of Lakhanpur OCP, Belpahar OCM and Lilari OCP for which overburden dumps and backfilled area will be re-handled. The project has started its operations on 27.03.2024
2	Physical Reclamation of OB Dump: Proper reshaping and regrading of top surface, providing drainage arrangements and top soil spreading on external and internal dumps.		
3	Biological Reclamation: Plantation of suitable species of herbs, shrubs & indigenous trees over technically reclaimed dumps.		

IMPACT OF POLLUTION CONTROL MEASURES ON COST OF PRODUCTION:

Cost of environmental management during 2023-24 was Rs. 92.18/tonne of coal

Part – H

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

Head	Amount Rs. (approx.)
CTO & HWA charges	160 lakhs
CMPDI Environmental Monitoring	400 lakhs
Plantation	1000 lakhs
Drain cleaning	100 lakhs
Plant distribution	10 lakh
ETP maintenance	15 lakhs
Haul road and CT road maintenance	500 lakhs
Dust suppression by water tankers	150 lakhs
Mobile water tanker	1000 lakhs
Mobile Mist sprayer	300 lakhs

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Miscellaneous	10 Lakhs
Fog Cannon	200 Lakhs
Dust suppression machinaries	1500 lakhs
ETP	10 Lakhs
Maintenance of CAAQMS	50 Lakhs
Total	5405 lakhs

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.

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v/f
20/9/24

Signature of Project Officer
Integrated Lakhanpur-Belpahar-Lilari Opencast Project
(with official seal)

G.M (Min) / Project Officer
Integrated LBL OCP
Lakhanpur Area MCL

Expenditure for Environment Management in 2023-24

Sl.No.	Works	Expenditure (Rs.)
1.	Consent to Establish Fees	32000000
2.	Consent to Operate Fees	16286000
3.	Hazardous Waste Authorization Charges	7500
4.	SMC Work Order	8118400
5.	Lilari Nallah Conservation Plan	4871040
6.	Comprehensive Hydrogeological Report	3247360
	Total	64530300

M. Gogoi

20/12/24

**Signature of Project Officer
Integrated Lakhanpur-Belpahar-Lilari Opencast Project**

**G.M (Min) / Project Officer
Integrated LBL OCP
Lakhanpur Area MCL**

