
	<p style="text-align: center;">Central Coalfields Limited</p> <p style="text-align: center;">'MINIRATNA' CATEGORY-1 COMPANY (A Subsidiary of Coal India Limited) Office of the Project Officer, Kathara Colliery PO: Kathara, Dist: Bokaro Jharkhand 829116</p>	
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Ref. No. - KT/PO/Environment/ 3977

Dated: 27 September, 2021

(97)

To
The Member Secretary,
Jharkhand State Pollution Control Board,
HEC Colony, CTI Colony, Sector 3, Dhurwa,
Ranchi- 834004.

Subject- Submission of Environmental Statement for 2020-21 of Kathara Colliery.

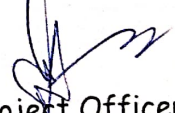
Dear Sir,

Please find attached herewith the copy of Environmental Statement of Kathara Colliery for the year 2020-21.

This is for your kind information.

Enclosure: As above.

Yours faithfully


Project Officer,
Kathara Colliery

Copy to:-

01. Regional Officer, JSPCB, H.I.G.-1, Sardar Patel Nagar, Dhanbad.
02. S.O. (Environment), Kathara Area.

ENVIRONMENTAL STATEMENT

**OF
KATHARA OCP**

**FOR
2020-21**

**CENTRAL COALFIELDS LIMITED
KATHARA AREA**

o/c

EXECUTIVE SUMMARY

- E-1 This Environmental statement Report has been prepared as per gazette notification no. GSR 329 (E) dated 13th March 1992 laid down by Ministry of Environment & Forest. The Environmental Audit has been subsequently renamed to "Environmental Statement" vide MOEF gazette notification no. GSR 386 (E) dated 22nd April 1993.
- E-2 Kathara Colliery is located in South-western part of the East Bokaro Coalfields of CCL in Bokaro Distt of Jharkhand. The location of Kathara opencast project and other surface features are given in the plan annexed as Annexure-I.
- E-3 Kathara Colliery has produced 200071.72 Tonne of coal in 2020-21.
- E-4 The Environmental Monitoring was carried out quarterly as per the guideline of Ministry of Environment & Forest (MOEF) by CMPDI (HQ), Ranchi.
- E-5 Ambient air quality was monitored to study the level of air pollution. The main air pollutant is Suspended Particulate Matter (SPM). It is difficult to quantify the amount of air pollutants generated due to mining. However, the results show that except SPM, SO₂ and NO_x values are generally below permissible limits prescribed by Ministry of Environment & Forest.
- E-6 Water is not directly used during mining for coal production. It percolates into working area during mining operation. However, water is consumed for other purposes, mainly for domestic supply & industrial supply.
- E-7 The noise levels recorded are generally below permissible limits prescribed by Ministry of Environment & Forest (MOEF).
- E-8 Raw materials used in coal mining activities are explosives and POL for machines and automobiles. The consumption is detailed in part-B of Statement Form.
- E-9 Hazardous waste is not being produced either from mining operations or from any pollution control facilities. Solid waste produced from underground mining is very negligible. The total OB generated during 2020-21 was 956400 cu. M.
- E-10 Regular measures are being taken to control air, water & noise pollution discussed in detail in parts-G, H & I of the Statement Form.
- E-11 This Annual Environmental Statement Report for the Year 2020-21 has been prepared as statutory required.

CHAPTER-1

1.0 INTRODUCTION

Kathara Colliery is located in South - western part of the East Bokaro Coalfields of CCL in Bokaro Distt of Jharkhand. The location of Kathara Colliery and other surface features are given in the plan annexed as Annexure-I. The annual production of this colliery was 200071.72 tonne.

2.0 Project Description

Mining is carried out through Opencast Mining Method using Shovel and dumper combination. Blasting is done as per norms to loosen the coal and then the coal is loaded by shovel into the dumpers and finally dispatched through railway siding.

2.1 Location

Kathara Colliery is situated in the south-western part of the East Bokaro Coalfield in Bokaro district of Jharkhand. It is bounded by 23 deg. 45 min 19 sec north and 23 deg. 46 min. 22 sec north latitudes, and 85 deg. 51 min. 16 sec east and 85 deg. 52 min. 32 sec. east longitudes.

2.2 Communication

Kathara colliery is well connected by Rail and Road. The BTPS railway station on Barkakana - Gomoh loop line of Eastern Railway is about 7 KM from the Project. The project is connected to the Grand Trunk road by all weather metalled road meeting at Bagodar, which is nearly 30 KMs from the project. The Ramgarh-Dhanbad road is also connected to project by 20 KMs metalled road. Ranchi, the nearest airport, is about 110 KMs from the project by road.

2.3 Topography

The Topography of the area is moderately undulating and rolling. The area lies between two easterly flowing rivers, Damodar in the south and Bokaro in the north. Thus the area serves as catchment for both the rivers.

2.4 Climate

The area falls within 22.5 c to 25 c mean daily temp zone. The average annual rainfall is 1200 mm to 1400 mm. The max monthly rainfall (Aug 82) recorded is 565 mm.

2.5 Environmental scenario

Environmental monitoring is carried out quarterly as per guideline of MOEF (Ministry of Env & Forest).

CHAPTER-II
ENVIRONMENTAL STATEMENT FORM-V

Environmental Statement for the financial year

Ending March 2021

PART - A

- (i) Name and Address of the Mine : Kathara Colliery
P.O.Kathara
Dist Bokaro (Jharkhand)
- (ii) Industry Category : Primary
- (iii) Production Capacity : 0.9 MT per year (peak Capacity)
- (iv) Date of last Env Statement Report : The last Environmental Statement Report was submitted in July '2020.

PART – B

WATER AND RAW MATERIAL CONSUMPTION

I. Water consumption (M³/ day)

Mining		
a	Haul road dust suppression	1210
b	Workshop	900
c	Fire fighting	500
d	Others (service building etc.)	510
Domestic		
a	Domestic including service and welfare building	3120

WATER CONSUMPTION PER UNIT OF PRODUCT

Name of Product	Water Consumption per Unit of Product(Approx.)	
	During financial year (2020-21)	During financial year (2019-20)
1. ROM Coal	27.19	41.21 L/T

II. RAW MATERIAL CONSUMPTION :

Sl.No.	Name of raw material	Name of products	Consumption of raw material (per unit of output)	
			During financial year (2020-21)	During financial year (2019-20)
	NIL	NIL	NIL	

PART - C

POLLUTION GENERATED

(PARAMETERS SPECIFIED IN THE CONSENT ISSUED)

Pollutions	Quantity of pollution generated	Percentage variation from prescribed standards with reasons
Water	About 300 m ³ /day mine effluent discharged outside. The analysis results are given in Annexure-II.	The analysis results reveal that most of the parameters are below permissible limits prescribed by MoEF as General Standards for Class 'A' effluent (Effluent discharged into inland surface water).
Air	It is difficult to quantify the amount of air pollutants. The main air pollutant is suspended particulate matter (SPM). The air quantity results are appended as Annexure-II.	Ambient air quality results show that SO ₂ , NO _x values were within prescribed limits.
Noise	The high noise in mining area owes its origin in and around excavation & material handling sites. There is no continuous sound frequency of impulsive nature. Ambient noise quality report are appended as Annexure-II.	Noise Quality Report shows the results are within permissible limits.

PART - D

HAZARDOUS WASTES

(As specified under Hazardous Waste Management and Handling Rules (1989))

Hazardous Waste	Total Quantity	
	During financial year (2020-21)	During financial year (2019-20)
(a) From process	NIL	NIL
(b) From pollution control facilities	NIL	NIL

PART - E

SOLID WASTES

	Total Quantity in million cubic metre.	
	During financial year (2020-21)	During financial year (2019-20)
(a) From process (Mining) Overburden	0.956	0.352
(b) From pollution control facilities	NIL	NIL
(c) Quantity recycled or reutilised	NIL	NIL

PART - F

PLEASE SPECIFY THE CHARACTERISTICS (IN TERMS OF CONCENTRATION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE THE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES

1. HAZARDOUS WASTES :

Hazardous wastes is not being produced either from mining operation or from any pollution control facilities.

2. SOLID WASTES :

During opencast mining, overburden produced as solid wastes temporarily as these materials are used for land reclamation. During the year 20120-21 **0.956** Million cubic meter of overburden was generated. The overburden materials are more or less homogeneous comprising mainly shale, sand, silt and clay, & gravel.

3. DISPOSAL PRACTICE

Presently, the O.B. material is being filled in de-coaled area of quarry.

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 following pollution control measures have been implemented.

1.0 AIR POLLUTION CONTROL MEASURES:

The following measures have been taken to control air pollution:

1. Regular sprinkling of water on haul roads and other roads.
2. Water sprinkling on coal stock.
3. Plantation along the haul road and in other vacant space.
4. Necessary Precautions will be taken during drilling, blasting, loading & transporting operations.

2.0 WATER POLLUTION CONTROL MEASURES:

The following measures have been taken to control water pollution from the mine:

- i. The mine water is allowed to settle in sump before pumping to natural drains. Some of mine water is also used for haul road dust suppression in workshop & in fire fighting in the mine. Colony & other service building are provided with septic tank & soak pit. A garland drain is provided around the quarry to collect the surface run-off. This also prevents storm water to enter in to the quarry area.

3.0. NOISE POLLUTION CONTROL MEASURES:

- i. Blasting operation is carried out between 12.30 PM to 3.00 PM.
- ii. Regular maintenance of HEMMs, CHP, and other equipments.
- iii. Use of HEMMs with sound proof cabin. Providing green belt around noise generating centers.

4.0. MEASURES FOR RECLAMATION OF LAND

At present overburden generated during mining is being used as re-filling material in de-coaled area of quarry. As soon as the dumps reach to its final stage, it is proposed to start technical and biological reclamation of the dumps.

At the end of mining operation, some decoaled area will remain empty, which would be used for storing rain water. The presence of such a water body will help in increasing the moisture content of soil of adjacent area and ultimately it would promote the growth of vegetation.

PART - H **ADDITIONAL INVESTMENT PROPOSAL FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT OF POLLUTION**

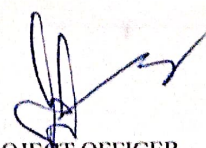
Additional investment proposal has not been finalized yet. Other investment proposals are:

- (i) The Environmental monitoring of the project will be continued quarterly as per the guidelines of Ministry of Environment & Forests (MoEF).
- (ii) Environmental Statement report will be prepared or each financial year ending 31st March.
- (iii) The Air & Water consent will be taken from State Pollution Control Board, Ranchi each year.

PART - I **ANY OTHER PARTICULARS IN RESPECT OF ENVIRONMENTAL PROTECTION AND ABATEMENT OF POLLUTION**

The major problems of environmental control of Kathara Colliery are:

- i. Management of solid wastes in form of overburden dumps.
- ii. Treatment and disposal of mine effluents including dump leachates.
- iii. Control of mine fire. Creation of green cover of OB dumps, fire control area and around residential area. Treatment of workshop effluent.


PROJECT OFFICER
KATHARA COLLIERY