

J-OCF
26/8/19

CENTRAL COALFIELDS LIMITED
PO OFFICE, JARANGDIH COLLIERY
PO: JARANGDIH: DIST: BOKARO (JHARKHAND) - 829113

Ref no: PO/JRD/Environment/2019/ 2187

DATE: 26.08.2019

To

Registered Post

The member Secretary
State pollution Control Board ,
T. A. Bhawan, H.E.C. Campus, Dhurwa,
Ranchi- 834004, Jharkhand

Sub- Submission of environmental statement for the year 2018-19 report in respect of
Jarangdih OCP of kathara area, CCL.

Respected Sir,

Please find attached herewith the copy of environmental statement for the year 2018-19 report in
respect of Jarangdih OCP of kathara area, CCL .

This is your kind information.

Your Faithfully

[Signature]
26/8/19
Project Officer
Jarangdih Colliery

Copy to:-

1. The Regional officer, JSPCB, Dhanbad
2. The S.O(P&P), Kathara area
3. The S.O(Env.), Kathara area

ENVIRONMENTAL STATEMENT

OF

JARANGDIH OC

FOR

2018-19

CENTRAL COALFIELDS LIMITED

EXECUTIVE SUMMARY

E-1 This Environmental Statement Report has been prepared as per gazette notification no. G.S.R. 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. G.S.R. 386 (E) dated 22nd April 1993.

E-2 The Jarangdih OCP of Central Coalfields Limited is situated in the East Bokaro Coalfields in Bokaro distt. of Jharkhand State. The project locations and others surface features are given in the plan annexed as **ANNEXURE**.

E-3 The Environmental Monitoring was carried out quarterly as per the guide line of Ministry of Environment & Forest (MOEF).

E-4 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 SPM, SO_x, NO_x values are generally below permissible limits prescribed by Ministry of Environment & Forest (MOEF).

E-5 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 agriculture purpose and dust suppression.

E-6 The noise levels recorded are generally below permissible limits prescribed by Ministry of Environment & Forest (MOEF). There is no continuous high level sound frequency of impulsive nature.

E-7 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-8 Hazardous waste is not being produced either from mining operations or from any pollution control facilities except for Over Burden in case of OCP.

E-9 Regular measures are being taken to control air, water & noise pollutions discussed in detail in parts-G, H & I of the Statement Form.

Also, measures will be taken for implementation of the Environmental Management Plan for the project after getting approval of project report.

E-10 This Annual Environmental Statement Report for the year 2018-19, has been prepared as per statutory requirement.

CHAPTER -1 **PROJECT DESCRIPTION**

1.1 INTRODUCTION

The Jarandih OC of Central Coalfields limited is located in the East Bokaro district of Jharkhand state. The EC capacity of the project is 0.88 MTY. At present planned production capacity of Jarandih OC is 0.88 MTY.

1.2 LOCATION & COMMUNICATION :

The Jarandih project is located in the East Bokaro Coalfields in Bokaro District of Jharkhand state. The project is connected to the G.T. road at Bagodar by a 65 km all weather metalled road. The Ramgarh - Dhanbad road is also connected at Petarwar by a 35 Km long metalled road.

The project is about 2 km from Jarandih railway station on Barkakana - Gomoh loop line of Eastern Railway. The Bokaro thermal Power station is within 4 km towards west of the project. The location of Jarandih colliery and other surface features are given in ANNEXURE.

1.3 SALIENT FEATURES :

At present planned production capacity of Jarandih OC is 0.88 MTY. The mine is operated with shovel-dumper mechanism.

CHAPTER - II
ENVIRONMENTAL STATEMENT FORM -V
Environmental Statement for the financial yearending
March'2019

PART - A

(i) Name and Address of the mine. : JARANGDIH COLLIERY
: PROJECT OFFICER
Place :Jarangdih colliery
Post :Jarangdih colliery
Distt : Bokaro, JHARKHAND

(ii) Industry Category : Primary.

(iii) Production Capacity : OC - 0.88MTY as per EC J-
11015/502/2008-IA-II(M) dated 01.03.2012 for a capacity 0.88 MTPA
Production during year 2018-19 is 0.844 MTPA

(iv) Date of last Env. Statement Report: The last Env. Statement Report was
submitted by for the year 2018

PART - B

WATER AND RAW MATERIAL CONSUMPTION

I. Water consumption (M³/ day)

Mining		
a	Haul road dust suppression	168
b	Workshop	102
c	Fire fighting	79
d	Others (service building etc.)	20
Domestic		
a	Domestic including service and welfare building	1650

WATER CONSUMPTION PER UNIT OF PRODUCT

Name of Product	Water Consumption per Unit of Product	
	During financial year (2018-19)	During financial year (2017-18)
1. ROM Coal	0.98 cum/te	0.97 cum/te

II. RAW MATERIAL CONSUMPTION :

Sl.No.	Name of raw material	Name of products	Consumption of raw material (per unit of output)	
			During the financial year (2018-19)	During the financial year (2017-18)
	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	Water discharged from: (a) Mine-80cum /day (b) Workshop- Nil (c) Colony-530 cum /day	The analysis results reveal that all of the parameters are below the limits prescribed by MOEF.
AIR	It is difficult to quantify the amount of air pollutants. The main air pollutant is suspended particulate matter (SPM).	Ambient air quality results show that SO ₂ , NO _x , & SPM level are well within prescribed standards.

PART - D HAZARDOUS WASTES

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

Hazardous Wastes	Total quantity	
	During the financial year (2018-19)	During current financial year (2017-18)
a) From process	Nil	Nil
b) From pollution control facilities	Nil	Nil

NOTE: The entire process of coal mining, handling and dispatch do not produce any hazardous wastes.

PART - E
SOLID WASTES

	Total Quantity (in M m ³)	
	During the previous financial year (2017-18)	During the current financial year (2018-19)
a) From process (Mining) Overburden	1.32Mm ³	0.945049Mm ³
b) From pollution control facilities	Nil	Nil
c) Quantity recycled or reutilized	The entire volume of O.B. material is being used for partly for back-filling and partly as external dump.	The entire volume of O.B. material is being used for partly for back-filling and partly as external dump

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

Hazardous waste is not being produced either from mining operation or from any pollution control facilities. During opencast mining, overburden and top soil are produced as solid wastes temporarily as these materials are used for land reclamation.

The overburden material is more or less homogeneous comprising mainly sand, silt, clay and gravel. Overburden generated during 2018-19 was 0.945049 Million cubic meter.

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:

- i Railway siding, feeder breaker, transportation, haul roads and other roads.
- (ii) Blasting operations are carried out under congenial weather condition, i.e. avoiding temperature inversion, etc.
- (iii) Plantation along the haul road and in other vacant spaces.

- (iv) Water sprinkling on coal stock.
- (v) All necessary precautions are taken during drilling, blasting, loading and 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 discharged on wasteland after passing through a tank which acts as a settling pond. Finally; mine water reaches to Damodar River flowing in the project area. Mainly mine water used for dust suppression in haul road at Jarandih ocp.
- (ii) A system of open drain exists within the leasehold area to collect the storm runoff from paved area, road, roof top, etc. & lead them to natural drains directly.
- (iii) Garland drain is provided around the quarry to collect the surface run-off. This also prevents storm water to enter into the quarry area.
- (iv) The catch drains have been constructed around the foot of the O.B. dumps in order to collect surface run-off water from the dumps and convey them to settling ponds.
- (v) Colony and other service buildings are provided with septic tank and soak pit. Also, water is supplied after filtration and disinfection for domestic use.

3.

NOISE POLLUTION CONTROL MEASURES:

- (i) Plantation barriers have been developed around residential locations & are proposed around other noise prone area.
- (ii) Efforts are being made to keep HEMMs properly maintained so as to produce least noise.
- (iii) Blasting operation is carried out between 2 PM to 4.00 PM.
- (iv) Use of HEMMs with sound proof cabin.

4.0. MEASURES FOR RECLAMATION OF LAND

- (i) After the back-filling and external dump reaches its final stage, it is proposed to start technical and biological reclamation of the external dumps. At the end of mining operation, some de-coaled area will remain empty, which would be used for storing rain water.
- (ii) 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**

The following are the additional investment proposal for environmental protection:

- i. The environmental monitoring of the project will be continued quarterly as per guidelines of MOEF.
- ii. All residential quarters constructed for the Project has been provided with septic latrines and effluents are disposed off in soak pits. The capital investment for this purpose has not been assessed separately.
- iii. The air and water consent is taken from Jharkhand State Pollution Control Board, Ranchi each year.
- iv. Environmental statement report is prepared for each financial year ending 31st March.
- v. Rain water harvesting system will be installed in Excavation and E&M Workshop.

PART - I

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

1. The Environmental monitoring is carried out quarterly for the project by CMPDI as per the guide lines of the Ministry of Environment & Forest (MOEF).
2. The Environmental Statement for the project is prepared yearly. Ambient air quality, quality of effluent discharged from the mine and noise level all conform to the prescribed limits.

P. S. S.
26/8/19
Project Officer
Jarangdih Colliery