

**ENVIRONMENTAL STATEMENT**  
**OF**  
**NEW GIDI 'C' OCP**  
**FOR**  
**2018-19**



**CENTRAL COALFIELDS LIMITED**  
**ENVIRONMENT DIVISION**  
**CCL, ARGADA AREA**

## EXECUTIVE SUMMARY

- E.1 This Environmental Statement Report is prepared with a view to fulfill the statutory obligations laid down by Ministry of Environment & Forest (MOEF), Govt. of India vide their gazette notification no. G.S.R. 329 (E) dated 13th March 1992. The 'Environmental Audit' has been made mandatory through this notification. The 'Environmental Audit' has, subsequently, been renamed to 'Environmental Statement' vide MoEF gazette notification no. G.S.R386 (E) dated 22nd April 1993.
- E.2 New Gidi 'C' Project is operating in Argada Area of Central Coalfields Ltd. The planned capacity of the Project is to produce 0.6 M tones /year of ROM coal.
- E.3 The coal is being produced using opencast mining methods. A total of 3,70,370 tonnes of coal was produced and a total of 11,67,536 cubic metre overburden (OB) has been removed during year 2018-19 to produce this quantity of coal.
- E.4 The water although not used directly during the coal winning process, water is being consumed mainly for domestic purpose and for associated industrial activities like spraying for dust suppression, washing of HEMMs and other miscellaneous purposes.
- E.5 The regular ambient air quality monitoring is being carried by the CMPDI as per the guidelines of Ministry of Environment and Forest, Central Pollution Control Board and Jharkhand State Pollution Control Board. The results reveal that concentration of parameters i.e. SPM, SO<sub>2</sub>, NO<sub>x</sub> in ambient air, most of the time, are within the permissible limits.
- E.6 Solid wastes removed from the project in the form of overburden (OB) during the process of coal winning, are being used for physical and biological reclamation purpose. The noises level recorded are below the prescribed limit by Ministry of Environment and Forest. The noise generated in the project is of impulsive nature.
- E.7 Hazardous wastes are not being produced either from mining operation or from any pollution control facilities.
- E.8 At present following measures is being practiced for environmental management in the Project.
- (i) The water sprinkling is being done regularly on the haul roads and loading points.
  - (ii) The O.B. generated in the project is being reclaimed physically and biologically.
  - (iii) Tree plantation has been done extensively in the project.
  - (iv) Regular environmental monitoring is being carried out in the project as per the guidelines of MOEF, CPCB and SPCB.
  - (v) The project submits the consent application under Air (Prevention and Control of pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974.
- E.9 A comprehensive Environmental Management Plan (EMP) for this project (0.6 MTY), formulated by RI-III of CMPDI, was approved by the MOEF vide letter No. J -11015/34/2007 - IA. II (M) dated 08th November, 2007.

## CHAPTER ONE

### PROJECT DESCRIPTION

#### **1.1 General**

The New Gidi 'C' Project is under administrative control of Argada Area of Central Coalfields Ltd. The project has capacity to produce 6, 00,000 tonnes coal / year by opencast method.

#### **1.2 Location**

New Gidi 'C' Open Cast Project lies between latitudes 23<sup>0</sup> 41' 48" and longitude 85<sup>0</sup> 23' 45". It is included in the Survey of India Toposheet no 73E/6. It is situated in the Hazaribagh district of Jharkhand.

#### **1.3 Communication**

New Gidi 'C' Project is connected by all weather metalled road from Ramgarh via Sirka and Gidi 'A' collieries. It is situated at a distance of 25 Km from Ramgarh via Sirka colliery. The Patratu-Saunda branch line of Eastern Railway extends to the middle of the property.

#### **1.4 Topography and Drainage**

The area is gently undulating. On the Southeast of the Gidi 'C' block runs the Bundu hill range trending roughly NW-SE. This is a range with isolated hillocks rising to a maximum height of about 459 m above the sea level.

The Marangarha nala constitutes the main drainage system of the area and forms the eastern boundary of the block.

#### **1.5 Mining System**

Considering the geo-mining position of the deposits namely

(i) steep gradient and

(ii) multiple seam,

Shovel and dumper mining system is being used. Coal seams and OB are proposed to be extracted in horizontal slices.

## CHAPTER TWO

### ENVIRONMENTAL STATEMENT FOR NEW GIDI-C OCP, C.C. L. FOR THE YEAR 2018- 19

#### **Part-A**

(I) **Name and address of the Project:**

Name of the mine : New Gidi 'C' Project  
Address : Project Officer  
Place : Gidi 'C'  
District : Hazaribagh  
Phone Number : 8987784577

(II) Industry category : Primary

(III) Production capacity : 0.6 M tone/year

(IV) Year of Establishment: 1925

(V) Date of the last Environment Report submitted:

Last report submitted in September 2018

#### **Part-B**

##### **Water and Raw Material Consumption**

(I) **Water Consumption (m<sup>3</sup>/day)**

<b>Industrial</b>		<b>2018-19</b>
(a) Haul road dust suppression	:	336
(b) Workshop	:	03
(c) Fire-fighting	:	Nil
(d) Others(service building etc.)	:	<u>Nil</u>
Sub Total:		339
<b>Domestic</b>		
(a) Colony	:	2626
(b) Aboriculture	:	Nil
Sub Total	:	<u>2626</u>
<b>Total</b>	<b>:</b>	<b><u>2965</u></b>

Name of product	Water consumption (Per tonne of coal produced)	
	During financial year (2017-18)	During financial year (2016-17)
1. ROM coal	Nil	Nil

Note : There is no direct relation between water consumption and coal production.

**RAW MATERIAL CONSUMPTION:**

Name of raw material	Consumption of raw materials (per tonne of coal produced)	
	During financial year (2017-18)	During Financial year (2016-17)
ROM Coal	Nil	Nil

However the following materials are being consumed for OB removal and coal production.

Name of material	Financial year (2018-19)	Financial year (2017-18)
Explosive	7,76,107.60 kg.	8,80,028.15 kg.
Lubricants	53,567 kg.	50,751
Electric Detonators	801 nos.	942 nos.
HSD	15,83,489 litres	15,41,460 litres

**PART-C**

**POLLUTION GENERATED POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT**

**(PARAMETERS SPECIFIED IN THE CONSENT ISSUED)**

Pollution	Quantity of pollution generated	Percentage variation from prescribed standards with reasons
<b>Water</b>	The analysis results are given in Annexure.	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).
<b>Air</b>	It is difficult to quantify the amount of air pollutants. The main air pollutant is suspended particulate matter (SPM). The air quality results are appended as Annexure- .	Ambient air quality results show that values were within prescribed limits.
<b>Noise</b>	The high noise in mining areas owes its origin in and around excavation and material handling sites. There is no continuous sound frequency of impulsive nature. Ambient Noise Quality reports are appended as Annexure.	Noise Quality Reports shows the results are within permissible limits.

**POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT**  
**(PARAMETERS SPECIFIED IN THE CONSENT ISSUED)**

Pollutants	Quantity of pollutants Generated	Concentration of Pollutants Discharged (mass/Volume)	% variations from prescribed standards with reasons
<u>Water</u>			
(a) Discharge from mine	4925 m <sup>3</sup> /day	The quality of mine water at the discharge point vis-à-vis the prescribed standards are given in Annexure.	All parameters are under prescribed standards.
(b) Domestic Discharge	1314 m <sup>3</sup> /day		
<u>Air</u>		The Ambient air quality monitoring results are placed as Annexure.	

**PART - D**

**HAZARDOUS WASTES**

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

Hazardous Waste	Total Quantity	
	During financial year (2018-19)	During financial year (2017-18)
(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 (2018-19)	During financial year (2017-18)
(a) From process (Mining) Overburden	1.167 million m <sup>3</sup>	1.234 million m <sup>3</sup>
(b) From pollution control facilities	Nil	Nil
(c) Quantity recycled or reutilized	During both financial years, the entire volume of OB has been used for refilling the decoaled area of the quarry.	

## 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 waste 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 2018-19, 1.167 Million cubic meter of overburden was generated. The overburden materials are more or less homogeneous comprising mainly shale, sandstone, silt etc..

### **3. DISPOSAL PRACTICE**

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

## 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) Regular sprinkling of water on haul roads and other roads.
- (ii) Water sprinkling on coal stock.
- (iii) Plantation along the haul road and in other vacant spaces.
- (iv) All 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.
- (ii) An Oil & Grease Trap is operating in the workshop to prevent water pollution.
- (iii) Colony & other service building are provided with septic tank & soak pit.
- (iv) A garland drain is provided around the quarry during monsoon season to collect the surface run-off. This also prevents storm water from entering into the quarry area.



### **3.0. NOISE POLLUTION CONTROL MEASURES :**

- (i) Blasting operation is carried out between 2.00 PM to 4.00 PM.
- (ii) Regular maintenance of HEMMs, ~~HEMMs~~ and other equipments.
- (iii) Use of HEMMs with soundproof cabin.
- (iv) 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 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 rainwater. 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 finalised yet. However, it is proposed to construct an effluent treatment plant for workshop effluent and plantation in vacant spaces. 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 for each financial year ending 31st March.
- (iii) The Air & Water consent will be taken from Jharkhand State Pollution Control Board, Ranchi every year.

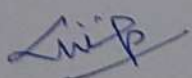
## **PART - I** **ANY OTHER PARTICULARS IN RESPECT OF ENVIRONMENTAL** **PROTECTION AND ABATEMENT OF POLLUTION**

The suggestions made by different statutory agency e.g. Ministry of Environment & Forest, Central Pollution Control Board and State Pollution Control Board etc. are being implemented from time to time in the project for better environmental conditions in and around the project.

The implementation of the EMP is under progress and the same is also reviewed as and when required.

The regular monitoring of the ambient air and water quality is being done in and around core zone and the quarterly monitoring report is submitted to the Jharkhand State Pollution Control Board, Ranchi and Ministry of Environment and Forest & Climate Change (MoEFCC), Regional Office, Ranchi.



  
**Project Officer**  
**New Gidi 'C' OCP**