



The Singareni Collieries Company Limited
(A Government Company)
Yellandu Area

Yellandu-P O 507124
Bhadradi kothagudem Dist T.S
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REF: YLD/PO/KOC-II/ 2883

Date: 27.11.2024

To
The Member Secretary,
T.S Pollution Control Board,
Paryavaran Bhavan, A-III, Industrial Estate,
Sanathnagar H Y D E R A B A D -500018

Sir,

Through

G.M, SCCL, YLD Area.
General Manager
Yellandu Area

Sub: Submission of environmental statement for the year 2023-24 of
Koyagudem OC Project-II Yellandu Area-Reg

Please find enclosed herewith the Environmental statement for the year 2023-24 is being submitted in FORM-V of the Environmental (Protection) Rules 1986 for Koyagudem Project-II, Yellandu Area of Singareni collieries Company Limited

Thanking You,

Yours Faithfully,

Project Officer,
Koyagudem OCP,
Yellandu Area.

Encl: As above

ENVIRONMENTAL STATEMENT OF KOYAGUDEM OCP-II FOR THE YEAR 2023-24

Singareni Collieries Company Limited is a Government Company jointly owned by Government of Telangana and Government of India. The Singareni Collieries Company Limited is a mining Company involved in coal mining activities in the southern part of Godavari valley coal fields scattered over in the district of Bhadradi Kothagudem, Khammam, Peddapalli, Manchiriyal, Komaram Bhem Asifhabad and Jayashankar Bhoopal palli in Telangana. The mining activities are divided into three regions namely, Kothagudem, Bellampalli, and Ramagundam. Each region is sub-divided into Areas for administrative convenience under the control of one General Manager.

KOYAGUDEM Open Cast- II Project is located almost half way between Kothagudem and Yellandu Towns of Bhadradi Kothagudem District of Telangana State.

The geological block covers an area of 4.20 Sq. Kms. Dornakal -Bhadrachalam Road Railway line, which is a branch line of Hyderabad- Vijayawada broad gauge of South Central Railway, serves this area with Bethampudi as the nearest rail head located at a distance of 16 KMs. The Koyagudem block is connected by a black top road to Kothagudem and Yellandu by State highway.

About 135 employees are working in this Project producing 20,00,000 tonnes per annum as per EC, most of which is supplied to KTPS thermal power station at Paloncha and some more quantity is being supplied to the brick units, small industries, cement industries etc.

CLIMATE: There are no prominent streams, rivers in the area except for few seasonal nallah that drain during the monsoon. The average rainfall is about 900 to 1000 mm. The area is mostly covered by reserve forest. There is no historical or ecological sensitivity area in and around the area.

LOCATION OF MINING AREA:

VILLAGE	KOYAGUDEM
TAHSIL	TEKULAPALLI
DISTRICT	BHADRADRI KOTHAGUDEM
STATE	TELANGANA

Yellandu Area is located 250 kms. away from Hyderabad to the East. The area is 35 kms. North West of Kothagudem town.

TOTAL MINING LEASE AREA:

FOREST LAND	463.78 Ha
Patta Land	46.32 Ha
Government Land	48.36 Ha
Govt. Assigned Land	119.58Ha
Forest Land already discard for KOC-I utilized for this project	138.07Ha
Total Land	816.07Ha

MINING PROCESS:

In Koyagudem OCP coal is extracted by Surface Minor by Open cast Mining method. The coal is transported through Tippers to KTPS, Paloncha and different brick units, small industries, cement industries etc.

**ENVIRONMENTAL STATEMENT FOR YELANDU AREA FOR THE YEAR 2023-24
(RULE NO.14 OF EPR 1986)****PART-A:**

Name and address of the owner/ The S. C. Co. Ltd., Yellandu Area	Sri. John Anand General Manager Occupier of the industry. (A Govt. Company). Bhadradri Kothagudem-Dt. Telangana-507123 STD:08745: Phone:240044,FAX:240348
Project Officer	Sri M.Govindarao
Industry category	Coal Mine.
Production capacity	2 MTPA
Environment Clearance obtained from Ministry of Environment & Forests.	J-11015/306/2006.IA.II(M), dated 11-06-2007
Date of Establishment	10th March 2008
Date of last ENV statement submitted	30.11.2023
Total coal production in 2023-24	30.00 L. Tonnes
Total Men on Roll	135

PART-B:**1. Details of Water consumption**

1	Water pumped out from mine	2760KLD
2	Water used for industrial purpose : (dust suppression and plantation)	780kld
3	Water let out into nallah /tank	1900kld
4	Water for domestic purpose	80kld

PART-C:

Pollution Generation:

Analysis of Mine discharge water is carried out periodically to ensure the CPCB prescribed standards. The monitoring of water quality is presently done by an external agency (EPTRI Labs, Hyderabad) and analysis data of the water samples collected at identified locations are enclosed as per Annexure-II.

Air Pollution sources and Control:

Main source of air pollution are drilling and blasting operations, loading and unloading operations of coal and overburden, exhausting gases from the Heavy Earth Moving machinery, Tippers, coal transportation vehicles, coal heaps and OB dumps. The ambient air quality status within and around the mining area is given in Annexure-II enclosed herewith.

Air pollution control measures being taken:

1. Wet drilling arrangements were provided to the drills for control the dust spreading.
2. Used delay action detonators for blasting and optimum use of explosive charges.
3. Carrying of blasting operations during favorable weather conditions.
4. Periodical maintenance of Heavy Earth Moving machines as per schedule.
5. Water spraying is being made on haul roads with water sprinklers.
6. 70700 plants were planted on 12 Ha on external and internal OB dumps around the mining lease area.
7. Road side avenue plantation was completed from Tekulapalli to Petramchalaka.
8. Firefighting equipment is available at every plant and machinery and also sand buckets are kept in ready for any emergency.
9. To curtail air pollution due to smoke arising from burning of coal for domestic use in the Yellandu Township, SCCL is encouraging its employees to use LPG gas in place of coal by reimbursing the cost of the LPG gas cylinder per month, to each employee at IOC rates as a result about 100% employees are using LPG gas which has helped to reduce smoke formation in the townships.

Energy Conservation:

1. High tension transmission and high voltage equipment are used to reduce energy losses.
2. LED and Sodium vapor lamps are being used wherever possible on the surface.
3. Switching off the equipment when not in use is followed.
4. Maintenance of proper gradients and maintenance of HEMM is followed as per the schedule by the DGMS and manufactures stipulations for efficient running.
5. LED and CFL bulbs are being used in employee's houses to reduce the power consumption.
6. Discourage the usage of incandescent bulbs in workers houses.

Hazardous Waste :- No hazardous waste is generated from this industry.

Part-D
Hazardous Waste

No Hazardous waste is generated in this unit of SCo. Ltd.

		Total Quantity (kg)	
		During previous financial year 2022-23	During the present financial year 2023-24
(a)	From Process	-Nil-	-Nil-
(b)	From Pollution control facility	-Nil-	-Nil-

PART-E

Solid Waste: Solid waste is generated is mainly consists of overburden material obtained during mining operations at different stages and a negligible quantity of shale / rejects separated from the excavated coal.

Rejects: Rejects separated from coal consists of shale, stone are being dumped under the internal overburden dumps, and Low UHV value shale is selling to the customers as carbonaceous coal / ungraded coal.

Solid wastes generated and recycled/solid/disposed for the year 2023-24

2023-24	136.91L BCuM
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PART-F

Characterization of Solid Wastes And Disposal Practice:

1. Rejects from coal consists of sand stone, hard rock and shale. These are picked out from coal and disposed under the internal OB dumps. Low UHV coal is being sold as ungraded coal to the customers.
2. Ambient air and work Zone air quality are being regularly monitored through an external agency i. e, EPTRI Hyderabad and a detailed report of air quality is enclosed as per Annexure-I.

PART-G:
Impact of Pollution Control measures Taken on Conservation of Natural Resources and on the Cost of Production:

1. Mine discharge water is used after filtration for drinking, washing dust suppression and plantation etc. Balance excess water is let out on surface, which is being used for irrigation.
2. As a result of water spraying at the mine working places and on surface at the coal loading points, dust is suppressed at the source and preventing it to become air borne and spreading into the surrounding areas.
3. To discourage burning of coal for domestic use which is creating pollution, in township, Management is encouraging the employees by supplying of LPG on free of cost every month, also cost of cylinder is reimbursed to those who are getting LPG from outside of Singareni Super Bazaar.
4. Compact Fluorescent Lamps are supplied to the employees on subsidy rates to discourage the use of incandescent bulbs for saving the energy.

Expenditure on Environment during the Year 2023-24 at Yellandu Area

SL.No	Cost Element on Environment Protection	Rs.
1	Air Pollution(Prevention & Control)	1,51,40,695.00
2	Water Pollution (Prevention & Control	1,43,10,696.00
3	Plantation	11,90,492.00
4	Consultancy Payments/Scientific Studies	0.00
5	OB dump/Subsidence Stabilization	4,58,78,587.00
6	Others	3,80,59,796.00
	Total	11,45,80,266.00

PART-H:

1. Educating of workers at all the mines on the use of natural resources and to reduce the consumption of water, Electricity etc., by displaying posters, padayatras and through the media etc.
2. Plantation is being taken up, in various vacant areas at colonies, departments and mines as part of clean and green programme.
3. Conducting the World Awareness Week every year in connection with World Environment Day for creating the Environmental awareness to the school children and workmen, conducting Elocution, Essay writing & Quiz competitions and the drawing competitions, giving prizes to the winners.
4. 10 Nos. of Sulabh complexes were constructed and maintained at mines and hutment areas to maintain the neatness of surrounding places.

Plantation particulars of Koyagudem OCP-II

Sl. No	Location of Plantation	Achieved in Ha
1	Dump Plantation	12
2	Revisiting in old dump area	37

Ambient Air Quality Report from Apr 2023 to Mar 2024

Area : Yellandu

Nature of Area : Core zone

Period of Monitoring : Apr 2023 to Mar 2024

Sampling Duration : 24hrs

Location	Direction & Distance	PM ₁₀			
		Min.	Max.	98%tile	STD
Project Office, KOC-II	Core Zone	76	166	164.9	250
Pit Head CHP, KOC-II	Core Zone	149.0	187.0	186.8	250

Location	Direction & Distance	PM _{2.5}			
		Min.	Max.	98%tile	STD
Project Office, KOC-II	Core Zone	28.6	45.3	44.9	No standard was specified for PM _{2.5} in core zone
Pit Head CHP, KOC-II		38.2	48.2	47.8	

Location	Direction & Distance	SO ₂			
		Min.	Max.	98%tile	STD
Project Office, KOC-II	Core Zone	9.3	11.6	11.4	120
Pit Head CHP, KOC-II	Core Zone	10.4	13.8	13.7	120

Location	Direction & Distance	NO _x			
		Min.	Max.	98%tile	STD
Project Office, KOC-II	Core Zone	14.5	16.8	16.7	120
Pit Head CHP, KOC-II	Core Zone	15.2	21.9	21.7	120

Area : Yellandu

Nature of Area : Buffer zone

Period of Monitoring : Apr 2023 to Mar 2024

Sampling Duration : 24hrs

Location	Direction & Distance	PM ₁₀			
		Min.	Max.	98%tile	STD
Bodu Village	SE 2.50 Kms	43	69	68.3	100
Petramchilaka Village	SW 2.85 Kms	54	82	81.3	100
Kistaram Village	NW 1.65 Kms	46	74	73.6	100

Location	Direction & Distance	PM _{2.5}			
		Min.	Max.	98%tile	STD
Bodu Village	SE 2.50 Kms	19.2	22.8	22.8	60
Petramchilaka Village	SW 2.85 Kms	20.5	23.7	23.7	60
Kistaram Village	NW 1.65 Kms	18.7	24.2	23.9	60

Location	Direction & Distance	SO ₂			
		Min.	Max.	98%tile	STD
Bodu Village	SE 2.50 Kms	9.3	10.8	10.8	80
Petramchilaka Village	SW 2.85 Kms	9.9	11.0	11.0	80
Kistaram Village	NW 1.65 Kms	9.5	10.8	10.8	80

Location	Direction & Distance	NO _x			
		Min.	Max.	98%tile	STD
Bodu Village	SE 2.50 Kms	14.2	15.4	15.4	80
Petramchilaka Village	SW 2.85 Kms	14.4	16.8	16.6	80
Kistaram Village	NW 1.65 Kms	14.6	15.6	15.6	80

Air Pollution Control Measures:

- Wet drilling arrangements are being used for controlling dust during drilling operations.
- Water spraying is being done on haul roads; dump yards and at coal loading and unloading points to reduce the dust arising due to movement of vehicles and wind.
- Water spraying is being provided in CSP at all coal transfer points.
- Coal fallen height on belts was reduced to control the dust and noise.
- As far as possible all the coal produced will be dispatched, except in few exceptional cases.
- Dumpers are parked inside the quarry to minimize the unnecessary travel distance and raise of dust.
- Periodical maintenance of all diesel/petrol operated machinery vehicles is being done to control SO₂ NO_x & CO in the exhaust emissions.
- Proper blasting pattern with optimum charge of explosives and use of Non Electric detonators is being adopted to reduce noxious gases and dust emissions & vibrations.
- No burning of coal or wood or cotton waste impregnated with oil and grease is done in the mine premises.
- Nonels are being used to reduce ground vibrations and fly rock.
- Employees are being provided with free LPG gas cylinders instead of coal to discourage coal burning for domestic use. All employees are using LPG gas in place of coal.
- Ambient air quality is being monitored every fortnight in and around the project area .The analysis report is enclosed here with.
- Drill machines have been provided with wet drilling
- Loaded Lorries are covered with tarpaulin cloths strictly to prevent the coal spillage and dust raise.
- Plantation was raised in and around the premises of CSP to control the dust spreading.
- Plantation was raised in OB dumps and vacant areas in and around the mine and also in colonies.

Water Quality Report from Apr 2023 to Mar 2024

Characteristics of Effluents – KOY OC-II Mine Discharge (EW5)

	pH (at 25°C)	Total Suspended Solids at 105 °C	Chemical Oxygen Demand	Oil & Grease
Unit	--	mg/L	mg/L	mg/L
Test Method	4500-H ⁺ B	2540-D	5220-D	5520-B
Min	7.1	6	16	-
Max	7.7	14	27	-
98 Percentile	7.54	13.72	26.46	-
Average	7.48	10.5	20.75	1

Characteristics of Effluents – Koyagudem OC-II Base Workshop ETP Outlet (EW5)

	pH (at 25°C)	Total Suspended Solids at 105 °C	Chemical Oxygen Demand	Oil & Grease
Unit	--	mg/L	mg/L	mg/L
Test Method	4500-H ⁺ B	2540-D	5220-D	5520-B
Min	7.2	8	16	1.6
Max	7.9	20	29	3.0
98 Percentile	7.742	19.6	28.42	2.94
Average	7.55	12.5	20.33	2.4

Characteristics of KOY OC-II OB Dump Surface Runoff (EW6)

	pH (at 25°C)	Total Suspended Solids at 105 °C	Chemical Oxygen Demand	Oil & Grease
Unit	–	mg/L	mg/L	mg/L
Test Method	4500-H ⁺ B	2540-D	5220-D	5520-B
Min	7.1	7	15	-
Max	7.9	18	24	-
98 Percentile	7.742	17.64	23.52	-
Average	7.49	11.41	20.5	1

Water Pollution Control Measures:

- Mine water is collected in sumps inside quarry and pumped out after settling in settling pond.
- Mine water is filtered and used for washing, drinking & other purposes.
- Ground Water levels are recorded seasonally in near by villages and the statement of the same is enclosed.
- The mine out let water & ETP out let water and bore well water samples are collected and analyzed every fortnight .The results are furnished.
- Water spraying is being done on coal heaps at coal yard before loading to the trucks to prevent air born dust.
- Creation of water storage areas (sumps) for settlement of suspended solids beforepumping the water out of the mine.

Noise Report from Apr 2023 to Mar 2024

Location	Direction & Distance	Day Time			
		Min.	Max.	Avg.	STD
Core Zone					
Koyagudem OCP PO/ site Office II & Base Workshop	Core Zone	62.6	69.3	66.39	75
Koyagudem OCP Pit head CHP	Core Zone	62.8	70.2	67.23	75
Buffer Zone					
Koyagudem Village	SW 5.00 Kms	38.9	45.1	41.68	55

Location	Direction & Distance	Night Time			
		Min.	Max.	Avg.	STD
Core Zone					
Koyagudem OCP PO/ site Office II & Base Workshop	Core Zone	51.6	58.6	53.8	70
Koyagudem OCP Pit head CHP	Core Zone	48.3	58.1	54.40	70
Buffer Zone					
Koyagudem Village	SW 5.00 Kms	34.1	36.5	35.48	55

- Note: 1. Daytime is reckoned in between 6 AM and 10 PM
2. Night time is reckoned in between 10 PM and 6 AM

Noise Pollution Control Measures:

➤ To dampen the noise levels at CHP, impact rollers are provided at transfer points.
➤ Height of fall is minimized at all coal transfer points and internal lining of bins and chutes would be done.
➤ Green belts are developed around CHP and mine colony interface etc., to dampen the noise.
➤ In the high noise intensity working areas / zones earmuffs or earplugs or any other suitable personal protective equipment are provided to the workmen.
➤ Regular noise level monitoring is being done periodically for taking corrective action, Wherever required.
➤ Proper maintenance and tuning of machinery is done regularly.
➤ Proper maintenance of plant and machinery and improvement on design of machines
➤ Acoustically designed operator's cabin in HEMM
➤ The greenbelt with species of rich canopy around the lease area and along the roads is Developed for further attenuating the noise levels.
➤ Blasting operations are carried out with proper hookup and optimum explosive charge.