



भारत सरकार

Government of India

पर्यावरण वन और जलवायु परिवर्तन मंत्रालय

Ministry of Environment, Forest & Climate Change

एकीकृत क्षेत्रीय कार्यालय/Integrated Regional Office

Aranya Bhavan, 3rd floor, Saifabad, Hyderabad-500004, Telangana

E-mail: iro.hyderabad-mefcc@gov.in

Tel: 040- 29390053

No. 4-TSA~~330~~/2023-HYD

Date: 24.04.2023

To

The Addl. Director General of Forests (FC),
Ministry of Environment, Forest and Climate change,
Govt. of India, Indira Paryavaran Bhawan,
Jorbagh Road, Aliganj,
New Delhi-110003.

(Kind attention: Dr. Dheeraj Mittal, AIGF)

Sub: Proposal for diversion of 151.8517 ha. of forest land falling in Yellandu division for proposed JK OC project at Yellandu division in favour of M/s. Singareni Collieries Company Limited - reg. (Online proposal No.FP/TG/ MIN/49581/2020).

Ref: Ministry Letter No.8-260/1985-FC(Vol.I), dated 18.01.2023.

Sir,

With reference to Ministry's letter cited above, please find enclosed herewith the site inspection report on the proposal for diversion of 151.8519 ha of forest land falling in Yellandu division for proposed JK OC project in favour of M/s Singareni Collieries Company Limited along with Annexures for kind information and necessary action please.

Encl: As above

Yours faithfully,

(Dr. G. Trinadh Kumar)
Inspector General of Forests (Central)



SITE INSPECTION REPORT OF THE PROPOSAL FOR DIVERSION OF 151.8519 HA OF FOREST LAND FALLING IN YELLANDU DIVISION FOR PROPOSED JK OC PROJECT AT YELLANDU DIVISION IN FAVOUR OF M/S SINGARENI COLLIERIES COMPANY LTD. (ONLINE PROPOSAL NO. FP/TG/MIN/49581/2020).

MoEF & CC vide letter dated 18.01.2023 (enclosed as **Annexure-I**) requested the IRO, Hyderabad to inspect the forest land proposed for diversion and CA sites (Both NFL & DFL) identified for the above cited project. The Ministry further requested the IRO to analyze the EC pertaining to JK-5 mine regarding conditions laid down in respective EC with reference to the mined-out areas or OBD areas and the provisions for rehabilitation or greening the same. The updated status with respect to mine closure plan of JK-5 may also be submitted along with the Site Inspection Report.

In pursuance of the above instructions from the Ministry, the undersigned inspected the forest land (151.8519 ha) falling in 21- Incline underground mine in Yellandu for proposed JK OC project, JK-5 OC mine area including the OB dumps within JK-5 OC mine, Non-Forest Rehabilitated OB Dump area (NFL) identified for CA located in Karepally Range of Khammam Forest Division on 24.03.2023. During the inspection the Chief Conservator of Forests, Bhadradi Circle, DFO- Bhadradi Kothagudem district, FDO, Khammam, The General Manager, Yellandu Mine, SCCL and other Forest and SCCL officials were present.

The Degraded Forest Land (DFL) identified for CA in Gangaram range in Mahabubabad Forest division was inspected on 25.03.2023. During the inspection, the DFO- Mahabubabad District, and other Forest and SCCL officials were present. Detailed note on observations made during the site inspection on each of the sites visited are furnished below:

A) Inspection of 151.8519 ha of Forest land falling in proposed JK OC project at Yellandu:

The proposed Forest area admeasuring 151.8519 ha falling in the mine (21 Incline) is in 2 different patches of 106.3042 ha and 45.5477 ha. Out of 151.8519 ha forest land proposed to be diverted, 115.6001 Ha area is proposed to be used for excavation purpose and the remaining forest area is proposed to be used for other works like garland drains, Toe walls, safety zone, plantation, settling pond, embankment etc. For the sake of convenience, these 2 patches are referred as FL-1 and FL-2 respectively in this report.

Details of FL-1:

This forest patch is having an area of 106.3042 Ha and about 200m length of this forest land runs along the Yellandu to Mahabubabad road. This forest patch is reported to be falling in Compartment No. 49 and 51 of Yellandu RF. During the discussion held with the officials of Forest



and SCCL before proceeding to the field, it was informed that about 68.00 ha out of 106.3042 ha forest land in this patch is under encroachment and there are some claims under process under FRA, a map indicating these details furnished during site inspection is enclosed as **Annexure--II**. However, in the site inspection reports of the Forest Divisional Officer, Yellandu and the Conservator of Forests, enclosed with the proposal in PARIVESH portal, it was reported that Eucalyptus plantation in 25.00 Ha and 7.00 Ha were raised by the forest department during 2006-07 and 2012-13 respectively and Miscellaneous species plantation raised in 12.00 Ha and 15.00 Ha during 2013-14 and 2004-05 respectively in the forest land proposed for diversion now. FDO, Yellandu in his inspection report clearly indicated that there is no claim pending for RoFR in this forest land.

During inspection of this forest patch, encroachments by way of cultivation of agricultural crops and commercial establishments like Poultry shed, shops, dwelling house etc. were noticed. The area under encroachment by way of agriculture and commercial activities measured from the KML file is about 30-35 Ha only as against the 68.00 ha of encroachments mentioned above. The remaining forest land is having miscellaneous tree vegetation with natural teak/ teak coppice growth and Eucalyptus plantation. Tree species such as *Diospyros melanoxylon*, *Tectona grandis*, *Chloroxylon swietenia*, *Terminalia tomentosa*, *Holoptelia integrifolia*, *Eucalyptus spp.* etc. are found in this forest patch. The canopy density is ranging from zero (in the encroached FL) to 0.5 (in FL free from encroachment). The boundary of the forest land is demarcated with Peg marking / Flags. On enquiry with the State Forest department officials regarding the status of encroachments, it is given to understand that there are certain claims received and processed under FRA, 2006 recently. However, as of now, there are no Pattas issued under FRA, 2006. Neither the user agency nor the SFD had initiated any action for eviction of the encroachments in this forest land. The user agency further submitted that they have only underground rights and do not have any surface rights over this forest land.

The user agency informed that the underground mining has been carried out in this patch of forest land earlier and as on date the mining activity is stopped. This forest patch was included in the earlier diversion / renewal of 124.96 ha approved by the Ministry vide F.No. 8-260/1985-FC, dated 20.07.2018. Balance forest land within the mine proposed to be kept for underground use is also having certain encroachments on the surface.

Details of FL-2:

This forest patch is having an area of 45.5477 ha and the forest land is demarcated with peg marking/ RCC pillars/ trench at different places along the outer boundary. The vegetation in this area is mainly open forest and scrub type with species like *Diospyros melanoxylon*, *Tectona grandis*, *Chloroxylon swietenia*, *Terminalia tomentosa*, *Holoptelia integrifolia*, *Lagerstroemia parviflora*, *Azadirachta indica*, *Pongamia pinnata*, *Manilkara hexandra*, *Alangium lamarckii* etc. The canopy density is found to be around 0.2 to 0.3 in this patch of FL. There is one government timber depot (GTD) existing in this area which is being maintained by the Forest Department.



During inspection, graveyards/cemeteries are noticed at a few locations within this forest area. One small Dargah is also located within this forest patch. There is a BT road and some pathways passing through this forest patch and also part of electrical substation falls in it. In general, the forest areas in Telangana are reflected as forest lands on the SOI Toposheets, however, in this case the area is not shown as forest land as per the topo sheet but the DFO informed that the land is a part of notified RF block and Government Timber Depot is existing in this patch.

Representative of SCCL informed that underground mining was started somewhere around 1940s in this mine. Clearance under F(C) Act was obtained for the forest area located in the mine during 1985 and was later renewed in 2015 which is valid till 2035. The underground mining in this mine was stopped during 2020 as the extractable coal through underground mining process was completed. There is no mining activity noticed during the site inspection.

This portion of the forest land (FL-2) was not included in the forest clearance accorded to this mine for underground mining earlier. However, underground mining has been carried out in this area.

SFD officials informed that the faunal species like Wild Boars, Chowsinga, Monitor Lizard, Jungle cats and herpetofauna exist in this area. The department had taken up certain plantation works, SMC works and created a few Kms length of Fire lines within these forest patches (FL-1 & FL-2).

B) Inspection of JK-5 OC quarry area and OB dumps within the mine:

The representative of SCCL informed that the entire mine, JK-05 OC falls in non-forest area. Mining activity is noticed during the site inspection towards the North-West end of the quarry/mine. It was informed that the mining activity within JK-05 OC is almost completed and the operations may be closed in 2-3 months from now.

As per the Mining plan (including Mine Closure Plan) of JK-05 OC approved by the Ministry of Coal vide No. 38011/12/2017-PCA dated 12/09/2019, the following points are noticed pertaining to reclamation, dump management, plantation etc.:

- Para 15.2.5: Two final voids (V2- 31.97 Ha- 23.64 Mm³ V3- 75.71 Ha- 32.33 Mm³) are left by optimizing the OB dumping strategy. The maximum depth of two final voids is 120m. The final voids at the end of the mining operations will be left as water reservoir.
- Para 5.6.5: The OB generated (110.20 Mm³) would be dumped in external and internal area in 63.12% and 36.88% respectively and the top soil will be stored in storage yard.
- Para 14.6.0: Year wise programme of afforestation including stabilization and vegetation of dumps. Out of the mine take area of 490.14 ha afforestation in a phased manner is proposed in 327.30 ha (post-closure) which includes plantation over the dump yard, block plantation and avenue plantation. As against the target for 2022-23 fixed at 251.49 ha plantation, the project

proponent had raised plantation in 268.160 ha area over the OB dumps, Avenue etc. within JK-05 OC.

The Mining plan (including Mine Closure Plan) (4th modification) for Jawahar Khani Open Cast (JK OC) was approved by the Ministry of Coal vide No. 34011/1/2020-CPAM dated 29/10/2020. The amalgamated mine named as Jawahar Khani Opencast (JK OC) will have an area of 1114.507 ha which includes 167.46 ha forest land as indicated at Para 8.1.2 of the approved Mining Plan. *However, the forest area mentioned as FL-2 (45.5477 ha) above is not shown as forest land in the Mining Plan.*

The relevant pages of the Mining Plans are enclosed as **Annexure-III**.

MoEF&CC vide File No. 23-257/2018-IA(III), dated 13.12.2022 had considered the proposal and granted TOR of Jawahar Khani Opencast Mine {amalgamation of JK-05 OC and 21 incline (conversion to OC)}. As per the latest TOR dated 13.12.2022, the relevant points regarding reclamation noticed are furnished below:

- (ix) Mining plan (including mine closure plan) (4th modification) for Jawahar Khani Opencast (JK OC Mine) {amalgamation of JK-05 OC and 21 incline (conversion to OC)} was approved by MoC, GoI vide letter No. 34011/1/2020-CPAM, dated 29.10.2020.
- (xv) The project has one external OB dump with an area of 195.556 ha with 60m height and 82.5 Mm³ of OB is envisaged in the project. Two internal dumps with an area of Pit-1 – 149.95 ha and Pit-2 – 218.485 ha with 120m height and Pit-1 – 107.29 and Pit-2 – 225.19 Mm³ of OB is envisaged in the project.
- (xvi) Total quarry area is 531.570 ha, out of which backfilling will be done in 368.435 ha while final mine void will be created in an area of 163.135 ha with a depth of 190m. Backfilled quarry area of 368.435 ha shall be reclaimed with plantation. Final Mine void will be converted as water body.

From the above, it is noticed that the final mine closure / mining plan as per the EC has been modified resulting in backfilling and reclamation of 368.435 ha and mine void of 163.135 ha out of the total quarry area of 531.570 ha of JK-05 OC.

The copies of the EC of JK-05 and TOR of JKOC project are enclosed as **Annexure-IV**.

The mine JK-05 OC is aligned in SE to NW orientation. As we move from SE towards NW, one can see the reclaimed dump followed by a water body/Void followed by an active OB dumping area followed by active quarry. It was informed by the UA that the old OB dump at SE end of the mine is about +60m above the natural ground surface with benches of about 30 m height. This dump area has been planted with various forestry species viz. Hardwickia, *Inga dulcis*, *Ficus*,

Terminalia spp., *Aegle marmelos*, *Feronia elephantum*, Neem, Acacia, Bamboos. The major portion of dump area is found to be covered with established tree vegetation including Bamboo. Predominant growth of bamboo is noticed in this dump. It is given to understand that the User Agency intends to fill the quarry portion of JK-05 OC after the completion of mining activity with the OB generated from the adjoining 21 Incline which is proposed to be converted from Underground Rights to Opencast operations.

The portion of the quarry/ mine (JK-05) in which OB dumping is completed and plantation raised is found to be fairly stable and the tree vegetation including Bamboos have established.

C) Inspection of Non- Forest Rehabilitated OB dump area in Karepally Range in Khammam Forest Division:

The rehabilitated OB dump area in Karepally Range was inspected on 24/03/2023 along with the CCF-Bhadradi Circle, FDO, Khammam, General Manager (Yellandu Mine) and the other officials of Forest department and SCCL. It was informed that 151.8519 ha out of 205.664 ha of OB dump area located in non-forest land is proposed to be given to the State Forest Department in lieu of proposed diversion of 151.8519 ha of forest land for conversion from Underground Rights to Opencast mining of 21 Incline falling in Yellandu for JK OC project (Online Proposal No. FP/TG/MIN/49581/2020). The rehabilitated OB dump area is surrounded by private/ revenue lands and the dump is found to be of about 30m height from the natural ground surface. Water body exists in this land (water body appears to be created due to dumping of OB in this area) and the terrain is undulating. Due to non-availability of complete demarcation of the dump and access / pathway throughout the OB dump, the entire area could not be traversed. As the area is surrounded by private/ revenue lands, there is a possibility of encroachment in the fringe/ boundary of the dump, hence, the same need to be verified before taking over the land by the SFD. Perusal of the KML file shows some encroachments on the fringes of the proposed NFL land (old OB dump).

About 1 to 1.5 km length road along the bund of the water body is available to access into the planted dump and the same was inspected and noticed that the rehabilitated dump is covered with tree growth predominantly of *Cassia siamea*. Other forestry species such as *Inga dulcis* (*Jungle Jalebi*), *Acacia chundra*, *Prosopis cineraria*, *Acacia nilotica*, *Azadirachta indica*, *Peltophorum*, *Gulmohar*, *Eucalyptus*, *Syzygium*, *Bamboo* etc. are also noticed, however, their proportion is miniscule compared to the predominant species (*Cassia siamea*). The canopy density is found to be more than 0.5 in this area. It would be very difficult to raise any plantation with mixed forestry species in this area unless the predominant *Cassia siamea* and some of the undesired species like *Prosopis* are removed partly and openings are created in the canopy. As this area has a water body which holds water throughout the year, this may be useful for the wild animals and birds to sustain. The NFL identified is a big enough patch of land, therefore, it can be



protected and managed well if the entire land is properly demarcated and suitably fenced with chain link fencing/boundary wall and other protection measures are taken.

D) Inspection of Degraded Forest Land (DFL) identified in Gangaram Range of Mahabubabad Forest Division:

The following six patches of Degraded Forest Lands within Chintaguda RF block, Gangaram Range, Gudur WLM Division, Mahabubabad District have been identified for raising Compensatory afforestation in lieu of diversion of 151.8519 ha FL for converting UG Rights to Surface Rights in 21-Incline for the proposed JK OC Project (JK 05 OC plus 21 Incline) at Yellandu.

Sl. No.	Range	Section	Beat	Compt. No.	Area in ha
1	Gangaram	Mamidiguda	Mamidiguda West	928 & 923	25.22
2				925	18.8
3			Kamaram	912	10.3
4				911	36.8
5		Komatlaguda	Jangalapally North	913	53.9
6				898	11.49

The DFO, Mahabubabad informed that all the six patches shown above were earlier under encroachment for cultivation of agricultural crops and the same are evicted recently (a few years back). After the encroachments were removed, staggered trenches were dug in some of these areas to prevent further course of encroachments. These patches are selected in such a way that the area is devoid of tree vegetation within the selected patches. The natural flora noticed in the RF block area include Billadu, Nalla Maddi, Neem, Tuniki, Chennangi, Kodisa, Tirumanu etc.

During the inspection, it was noticed that the surface soil / top soil is washed out due to the agricultural activity and continuous exposure of the land surface. Whereas, in the adjoining undisturbed forest area, top soil is found to be intact, though it is very shallow. As the area is kept vacant for the past few years, natural regeneration of local forestry species is noticed in some places but is not sufficient to cover the entire ground surface. Due to absence of cultivation and tree vegetation in these encroachment pockets, growth of weeds is also noticed. The area is found to be suitable for raising compensatory afforestation. However, provision for adding organic

manure and irrigation for initial 4 – 5 years may be incorporated in the CA scheme to have greater success of the plantation. For better monitoring and protection of the CA plantation, provision for mobility to the frontline forest staff may also be included in the CA scheme. Mode of execution is shown as “through VSS on Joint Forest Management concept or by departmental execution” in the CA scheme submitted by the SFD. However, it is observed that the VSS are largely defunct presently and hence the execution by the SFD may be a better option in this case.


After traversing through the identified DFL patches within the Chintaguda RF, it is noticed that these identified DFL patches, totaling to an area of about 156 Ha., are scattered within the RF block area of about 18363 Ha and hence the management of individual patches of DFL would be difficult. Further, if all these patches are individually fenced to prevent grazing/ browsing by the wildlife and the cattle in the area, the cost may escalate and supervision may also become difficult. It is therefore, opined that a single patch of required extent may be selected incorporating maximum possible blank areas (encroachment evicted portions) for having better supervision, control and effective management of CA plantation in this area.

It is given to understand that the area is inhabited by predators such as Leopard. Tiger movement was also recorded in the past. Wild animals such as Indian Gaur/ Bison, Sloth Bear, Wild Boar, Spotted Deer, Nilgai etc are prevalent in this forest land. To provide a better habitat for the wildlife existing in the forest, Soil Moisture Conservation measures, Water holes, Salt licks, grasslands may be created within the identified DFL for CA and the adjoining Reserve Forest area.

Based on the inspection carried out in Yellandu mining area, NFL land in Karepally (rehabilitated dump) and the DFL land in Mahabubabad District and keeping in view of the existing forest landscape, flora and fauna in these forests, the following submissions are made:

- The proposed diversion area is found to be surrounded by forest landscape with rich faunal diversity. To have better management of flora and fauna in the forest landscape surrounding the mine, wildlife/ biodiversity management plan may be prepared and implemented.
- The user agency may engage a wildlife biologist/ Forestry graduate to monitor the flora and fauna in the forest landscape (both at the mine and the DFL area) throughout the life of the mine in coordination with the local forest department and submit a status report annually to the Ministry/ SFD.

Photographs taken during the site inspection are enclosed as **Annexure-V**. Submitter for kind perusal and further needful action please.



24/04/2023

(Dr G Trinadh Kumar),
Inspector General of Forests (Central),
IRO- Hyderabad.

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan,
Jor Bagh Road, Aliganj
New Delhi: 1100 03,
Dated: January, 2022

To
The Regional Officer,
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office,
Hyderabad.

Sub: Proposal for diversion of 151.8517 ha. of forest land falling in Yellandu division for proposed JK OC project at Yellandu division in favour of M/s. Singareni Collieries Company Limited. -reg (Online proposal No. FP/TG/MIN/49581/2020).

Sir,

I am directed to refer to the Government of Telangana's letter No.3219/For.I (1)/2022 dated 06th June, 2022 on the above mentioned subject seeking prior approval of the central Government in accordance with Section-2 of the Forest (Conservation) Act, 1980, and to request the Integrated Regional Office, Hyderabad of this Ministry to kindly inspect the forest land proposed for diversion and CA sites (both NFL and DFL) identified and submit a report to this Ministry, at the earliest.

2. Further, since the area sought in the instant proposal seems to have overlapping area/usage with the existing Mines and mining projects in the vicinity of the instant proposal the IRO is also requested to:

- i. Analyze the EC pertaining to JK5 mine regarding conditions laid down in the respective EC wrt the mined out areas or OBD areas and the provision for rehabilitation or greening the same if any. The updated status with respect to the mining closer plan of JK-5 may also be submitted along with the SIR. Further, the details of the area to be used for OBD of the instant proposal in the JK-5 mine may be analyzed/inspected since the OBD is proposed in OB dump area of JK-5 open cast mine.
- ii. Analyze the status and required compliance pertaining to the JK-5 and other mentioned mining projects w.r.t the instant proposal.

Signed by Dheeraj Mittal
Date: 18-01-2023 09:39:11

Yours faithfully,

(Dr. Dheeraj Mittal)

Assistant Inspector General of Forests

Copy to: -

1. The Spl. Chief Secretary (Forests), Government of Telangana, Hyderabad.
2. The Principal Chief Conservator of Forests (HoFF), Government of Telangana, Hyderabad.
3. The Nodal Officer, (FCA) Forest Department, Government of Telangana, Hyderabad.
4. User Agency.
5. Monitoring Cell, FC Division, MoEF, New Delhi.

Annexure - II



Yellandu Area
 Jambhaier Khushi Opponent (LAC/DC) Mine
 Investigation of 26.6 DC & 27 Incline (Conversion to DC)
SURFACE PLAN OF YELLANDU AREA
 R.F. - 1:10,000
 Area Survey Officer
 Yellandu Area

Handwritten note in the bottom left corner.

No. 38011/12/2017-PCA
Government of India
Ministry of Coal

Shastri Bhawan, New Delhi,
Dated the 12th September, 2019

To

Director (Planning & Projects)
The Singareni Collieries Company Limited
Kothagudem Collieries -507101,
Bhadrachalam Road Rly Station, Khammam District
Telangana

Sub:-Approval of Mining Plan (Including Mine Closure Plan) of Singareni Collieries Company Limited-reg.

Sir,

I am directed to refer the subject mentioned above and to state that after due deliberations, the Standing Committee has approved the following Mining Plan and Mine Closure Plan of the Singareni Collieries Company Limited :-

- a. Mining Plan (including Mine Closure Plan) (1st Revision/Modification) for Gouthamkhani Opencast Expansion Mine.
- b. Mining Plan (including Mine Closure Plan) (3rd Revision/Modification) for JK-5 Opencast Mine.
- c. Mining Plan (including Mine Closure Plan) (2nd Revision/Modification) for Medapalli Opencast Mine.

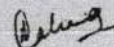
2. The above approval of the Standing Committee is subject to the following conditions:

- i. The Project Proponent shall submit approval of the Company Board in concurrence with the cost of mine closure activities as proposed in the Mining Plan (Final Mine Closure Plan).
- ii. As because the life of the mine is less than 5 years, all claims for the expenditure on mine closure activities shall be entertained after final closure of the mine.
- iii. The Project Proponent shall take all necessary precautions regarding safety of mine workings and persons deployed therein;
- iv. Mining lease of this block shall not encroach into any other adjacent coal block;
- v. The cost of abandonment for carrying out the closure activities envisaged in the Mine Closure Plan is indicative; the actual cost for carrying out the activities at the time of final closure may be higher. The actual cost of abandonment will have to be borne by the Project Proponent for carrying out the closure activities.
- vi. The approval of the Mining Plan (including Mine Closure Plan) is without prejudice to the requirement of approvals from competent / prescribed authority under the relevant rules/ regulations etc.

2. Two copies of approved Mining Plans (including Mine Closure Plans), as mentioned in para 1 above are enclosed herewith.

Encl : as above.

Yours faithfully,



(Alka Shekhar)

Under Secretary to Government of India
Telefax No:- 011-23386431

5.6.3 Transport:

Dealt in chapter no. 12

5.6.4 Blasting:

Dealt in chapter no. 6

5.6.5 Overburden Removal & Disposal:

Overburden that will be excavated throughout the life of the project is 110.20 Mm³. Out of 110.20 Mm³, 72.95 Mm³ of OB already extracted (69.56 Mm³ dumped in the external dump yard and 0.702 Mm³ dumped in the internal dump yard and the balance 0.248 Mm³ of topsoil is stored in the temporary storage yard at the dip side of the quarry). Remaining 37.25 Mm³ of OB will be accommodated in the internal dump yard. Percentages of external and internal dumping will be 63.12% and 36.88% respectively.

5.6.6.1 Dump Yards:

The utilization of JK OC Mine voids for OB dumping to avoid degradation of land is now mentioned in the Mining Plan at all relevant pages.

Earlier approved Mining Plan envisaged to use 266.81 ha voids of JK OC and 24.81 ha external dump for dumping of OB.

In this proposal, entire external dump area of 24.81 ha is avoided and planned entire dumping in the 266.81 ha JK OC voids to avoid further degradation of land. Hence, the project area has been reduced from 514.95 ha to 490.14 ha.

It is proposed to accommodate hard overburden and top soil in the following dump yards during the life of the mine. The details are furnished in Table 5.6.1.

Table 5.6.1

By the end of the year		Cumulative OB Removal (Mm ³)		
		Top Soil	OB	Total
Upto 31.03.2018		2.688	70.262	72.950
Y - 1	2018-19	2.938	82.990	85.928
Y - 2	2019-20	3.472	97.477	100.949
Y - 3	2020-21	3.620	106.580	110.200
Post Closure				
Y - 6	2023-24	3.620	106.580	110.200

(Signature)
 JALKA SHEKHAR
 Under Secy.
 Govt. of India
 Ministry of Coal
 Shastri Bhawan
 New Delhi

Plan Prepared by me

(SHAIK MADAR)
 Recognised Qualification Person U/R 22(C)
 of Mineral Concession Rules 1960 by
 Ministry of Coal, Govt. of India.
 Ref. 34012/01/2015 - CPAM
 Dt. 05-10-2017

14.5.4. Final void

Two final voids (V2:31.97 ha - 23.64 Mm³, V3: 75.71 ha - 32.33 Mm³) are left by optimizing the OB dumping strategy. The maximum depth of two final voids are 120m. The final voids at the end of the mining operations will be left as Water reservoir.

14.6.0. Year wise Programme of Afforestation including Stabilization & Vegetation of Dumps:

The table indicating technical and biological reclamation is checked and furnished and at all relevant pages.

The total mine take area of JK-5 OC mine is 490.14 ha, out of which afforestation will be done in phased manner in an area of 327.30 ha which includes plantation over the dump yards, block plantation and avenue plantation. The details of stage wise afforestation programme (Biological Reclamation) are furnished in table 14.19.

Table 14.19

Year/Stage	Biologically Reclaimed Area (ha)					Forest Land (Return)	Un Disturbed/ to be left for public/ Company use	Total
	Agriculture	Plantation	Water Body	To be left for Public/ Company Use	Total			
Upto 31.03.2018	-	119.40	-	-	119.40	-	-	119.40
Y-1 2018-19	-	151.60	-	-	151.60	-	-	151.60
Y-2 2019-20	-	190.05	-	-	190.05	-	-	190.05
Y-3 2020-21	-	251.49	-	-	251.49	-	-	251.49
Post Closure								490.14
Y. 6 2023-24	-	327.30	137.47	25.37	490.14	-	-	490.14

14.7.0 Monitoring Schedules of Different Environmental Components

14.7.1 Air Quality Monitoring:

Air quality monitoring is essential for evaluation of the effectiveness of abatement programme and development of appropriate control measures. SCCL is monitoring ambient air quality in and around the opencast project as per the frequency stipulated by MoEF & CC and appropriate air pollution control measures in order to ensure that the concentration of PM₁₀, PM_{2.5}, SO₂ and NO_x are within the limits.

AR
Coal
New Delhi

Plan Prepared by me
M
(SHAIK MADAR)
Recognised Qualified Person
of Mineral Concession Rules
Ministry of Coal, Govt. of India
Ref 3401201/2015-CPAM
Dt. 05-10-2017

15.2.0 Schemes/Proposals to be Implemented for Reclamation & Rehabilitation of Affected Area: Not applicable.

15.2.1 Stage wise Overburden (Hard OB and Top Soil) Dumping Programme:
Details are furnished at para No. 14.5.2 & para No. 14.5.3 of Chapter 14.

15.2.2 The Progressive Greenbelt Development Programme:
Details are furnished at para No. 14.6.0 of Chapter 14.

15.2.3 Selection of Species and Plantation Care:

15.2.3.1 Species Selection:

The selection of species was evaluated through the detailed flora and fauna study as a part of base line studies in EIA/EMP preparation. The plant species that are native to the area and to achieve self sustained ecosystem are preferred in the plantation programme.

15.2.3.2 Post Plantation Care:

Investment on reclamation would be futile without adequate and timely aftercare. Aftercare includes weeding, soil working, mulching, fertilizing, and if possible, irrigation to promote better growth of the planted seedlings. The vegetated area will be and being protected from grazing and browsing of animals until the plants are above the level of damage. Wherever necessary, fencing will be erected on the boundaries of reclaimed areas.

15.2.4 Post-Closure Land Use Status of the Project:

Details are furnished at para No.14.5.3 of Chapter 14.

15.2.5 Final Closure (Final Void):]

Two final voids (V2:31.97 ha - 23.64 Mm³, V3: 75.71 ha - 32.33 Mm³) are left by optimizing the OB dumping strategy. The maximum depth of two final voids are 120m. The final voids at the end of the mining operations will be left as Water reservoir.

Shaik Madar
DIRECTOR
Singareni Collieries Company Limited
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

Plan Prepared by me

(SHAIK MADAR)
Recognised Qualified Person U/R 22/C
of Mineral Concession Rules 1960 by
Ministry of Coal, Govt. of India.
Ref. 3401201/2015-CPAM
DL 05-10-2017

No.34011/1/2020-CPAM
Government of India
Ministry of Coal

Room No. 622-A, Shastri Bhawan,
New Delhi, date: 29th October, 2020

To,
The Director (Planning & Projects)
The Singareni Collieries Company Limited.
Kothagudem Collieries — 507 101
Khammam District, Telangana
[E-Mail: dpp@scclmines.com]

Subject: Mining Plan (Including Mine Closure Plan) (4th Modification) for Jawahar Khani Opencast (JK OC) Mine of M/s SCCL. -reg.

Sir,
In accordance with the deliberations in the internal committee meeting held on 14.09.2020, I am directed to convey the approval of Ministry of Coal under MMDR Act 1957 for Mining Plan (Including Mine Closure Plan) (4th Modification) for Jawahar Khani Opencast (JK OC) Mine [Amalgamation of JK-5 Opencast and 21 Incline (Conversion to OC)] of Singareni Collieries Company Limited.

2. The above approval is subject to the following conditions:

(a) The Project Proponent shall take all necessary precautions regarding safety of mine workings and persons deployed therein.

(b) All mining operations shall be carried out within mining lease area only. Mining lease of this block shall not encroach into any other adjacent coal block;

(c) The cost of abandonment for carrying out the closure activities envisaged in the Mine Closure Plan is indicative; the actual cost for carrying out the activities at the time of final closure may be higher. The actual cost of abandonment will have to be borne by the Project Proponent for carrying out the closure activities.

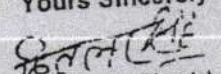
(d) The approval of the Mining Plan (including Mine Closure plan) is without prejudice to the requirement of approvals from competent / prescribed authority under the relevant rules/regulations etc.

3. Two copies of approved Mining plans (including Mine Closure plans), as mentioned in Para-1 above are enclosed herewith with the request that a copy of the approved mining plan may be submitted to the concerned State Government for necessary action and also a copy of the approved Mining Plan may be sent to the Coal Controller for monitoring the block.

This issues with the approval of the Competent Authority.

Encl.: as above.

Yours Sincerely


(Hitlar Singh)

Under Secretary to the Government of India
E-mail: hitlar.singh85@nic.in

3731...
02/11/2020

Chapter 8: PROGRESSIVE & FINAL MINE CLOSURE PLAN

Parameters		Details							
8.1.		Land Degradation and Restoration Schedule							
8.1.1.		Tentative Land Degradation and Technical Reclamation (Cumulative Area "Ha")							
		Land Degraded			Technically Reclaimed Area				
Year/Stage		Excavation	Dump (Extn + Top Soil)	Infrastructure /Others	Total	Backfill	Dump (Extn + Top Soil)	Infrastructure /Others	Total
Up to 31.03.2020		133.887	207.466	128.784	470.137	11.885	176.135	42.033	230.053
Y-1	2020-21	133.887	207.466	128.784	470.137	28.073	176.135	42.033	246.241
Y-2 (PRC)	2021-22	173.919	207.466	128.784	510.169	29.126	176.135	51.478	256.739
Y-3	2022-23	234.280	207.466	205.516	647.262	76.144	207.466	98.653	382.263
Y-5	2024-25	317.260	207.466	208.272	732.998	162.510	207.466	131.093	501.069
Y-10	2029-30	487.810	207.466	236.177	931.453	289.779	207.466	152.073	649.318
Y-14 (Final)	2033-34	531.570	207.466	263.634	1002.670	347.441	207.466	206.431	761.338
Post Closure									
Y-19	2038-39	531.570	207.466	263.634	1002.670	368.435	207.466	426.769	1002.67
8.1.2		Tentative Biological Reclamation (Cumulative in "Ha")							
		Biologically Reclaimed Area				Forest land (Return)	Undisturbed/To be left for public/com use	Total	
Year		Agriculture	Plantation	Water Body/Void	Public/Com Use				
Up to 31.03.2020			167.200	9.927		177.127		177.127	
Y-1	2020-21		201.980	9.927		211.907		211.907	
Y-2 (PRC)	2021-22		211.425	9.927		221.352		221.352	
Y-3	2022-23		302.170	9.927		312.097		312.097	
Y-5	2024-25		476.703	13.557		490.260		490.260	
Y-10	2029-30		586.342	13.557		599.899		599.899	
Y-14 (Final)	2033-34		726.682	23.172	11.484	761.338		761.338	
Post Closure									
Y-19	2038-39	61.958	686.987	125.663	21.758	896.366	167.46	50.681	1114.507
8.2		Post Closure Water Quality Management			Measures proposed:				
					<ul style="list-style-type: none"> Water samples are collected and tested as per standards & will be treated with suitable additives if required. 				

ANNEXURE-IV

No.J-11015/358/2006-1A.II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O.Complex,
New Delhi -110510.

Dated: 18th May 2009

To
Director (Planning & Projects)
M/s Singareni Collieries Company Ltd.,
Kothagudam Collieries - 507 101,
Bhadrachalam Road Railway Station,
Khammam District, A.P.

Sub: **Jawahar Khani-5 (JK-5) Opencast Coal Mine Project (2 MTPA) of M/s Singareni Collieries Company Ltd., located near villages Sudimalla, Usirikayalapalli and Mandal Yellandu, Singareni, District Khammam, Andhra Pradesh- environmental clearance - reg.**

Sir,

This is with reference to application vide letter No. CRP/ENV/A/417/671 dated 14.10.2006 for Terms of Reference (TOR), which was granted vide MOEF letter dated 15.01.2007 and with reference to application for environmental clearance based on the prescribed TOR vide letter No. CRP/ENV/A/417/116 dated 21.02.2009 and letters dated 10.03.2009, 22.04.2009 and 27.04.2009 on the above-mentioned subject. The Ministry of Environment & Forests has considered the application. The present application is for conversion of the existing Jawahar Khani-5 (JK-5) Underground Coal mine Project into opencast mine for extraction of residual coal at a production capacity of 2 MTPA in a total lease area of 514.95 ha. Of the total lease area, 258.91 ha is wasteland and 256.04 ha is grazing land. No forestland or agricultural land is involved. Of the total lease area, area for excavation is 149.95 ha, 32.68 ha is for storage of topsoil, 247.04 ha is for external OB dumps, 4.46 ha is for infrastructure, 7.41 ha is for roads, and 73.41 ha is for safety zone, drains, etc. The project involves R&R of Yellandu Town comprising about 600 PAFs. The R&R has been reduced from 1600 to 600 PAFs by shifting the quarry area edge 150m in-bye. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found within the 15 km buffer zone. Bogga Vagu flows at a distance of 1km from the ML and a drain passing through the ML joins Bogga Vagu. The project is opencast by semi-mechanised method. Mineral transportation of 7394 TPD of coal is by road by 35-T dumpers to Yellandu CHP covering a road length of 1.5 km. Ultimate working depth of the mine is 120 m below ground level (bgl). Water table during pre-monsoon is in the range of 2.30m - 11m bgl and during post monsoon period is in the range of 0.10m - 9.0m. Peak water requirement is 1130 m3/d of which 800 m3/d is for dust suppression, 100 m3/d is for green belt, and 80 m3/d for washing of HEMM, which would be met from mine pit water. An estimated 101.92 Mm3 of OB including topsoil (2.77 Mm3) would be generated over the life of mine; of which about 47.65 Mm3 of the OB would be backfilled into the voids of the neighbouring JK OC mine and the balance (51.05 Mm3) would be dumped into the void of the existing JK-5 project. No external OB dump would be created for storing OB. Backfilling will begin from 4th year onwards. A void of 92.41 ha would be left at the post-mining stage. Life of the mine at the rated capacity is 14 years. Public Hearing was held on 14.12.2007. Mining Plan has been approved by Ministry of Coal on 24.03.2009. Capital cost of the project is Rs. 31.87 croress.

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2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Jawahar Khani-5 (JK-5) Opencast Coal Mine Project of M/s Singareni Collieries Company Ltd.** for production of coal with a rated capacity of 2 MTPA in a total lease area of 514.95 ha under the provisions of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto and various Circular there under subject to the compliance of the terms and conditions mentioned below:



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A. Specific Conditions

- (i) Adequate safety measures shall be implemented for mining in areas where underground mining has been undertaken. Prior permission of the DGMS shall be taken to undertake opencast mining in areas where underground mining has been done.
- (ii) The entire topsoil of 2.77 Mm³ shall be stacked properly with proper slope at earmarked site(s) and shall not be kept active and shall be entirely used for reclamation and development of green belt.
- (iii) No external OB dump shall be created for the project. The OB generated over the life of the project shall be partially dumped into the voids of the neighbouring JK OCP and the balance into the voids of the existing project after extraction of coal.
- (iv) Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly.
Garland drains of suitable size, gradient and length and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provided for adequate retention period to allow proper settling of silt material.
- (v) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.
- (vi) Crushers at the existing Yellandu CHP and that to be constructed at the pit head shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, and transfer points.
- (vi) Drills shall be wet operated only.
- (viii) Controlled blasting shall be practiced only during daytime with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.
- (ix) Afforestation shall cover a total area of not less than 355.48 ha which includes reclaimed topsoil dump (16.69 ha), backfilled area of JK OCP (216.40 ha), backfilled area of JK-5 (57.54 ha), along ML boundary, along roads and infrastructure, and undisturbed areas within the lease (64.80 ha) by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
- (x) A Progressive Mine Closure Plan shall be implemented by reclamation of quarry area of 149.95 ha of which an area of 57.54 ha shall be backfilled and afforested by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. The balance 92.41 ha of the decoaled void left at the end of mine life, which is being converted into a water reservoir shall be gently sloped along the upper benches and stabilised with plantation. Similarly, the backfilled quarry of the neighbouring JK OCP, wherein OB from the present project is to be dumped shall be reclaimed with plantation to an extent of 216.40 ha and the remaining 30.64 ha of the void left at the end of this project shall be left as a water reservoir.
- (xi) Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon

(November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.

- (xii) The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xiii) Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.
- (xiv) ETP shall also be provided for workshop and CHP wastewater. Mine discharge water shall be treated to prescribed standards before discharge into any natural water course.
- (xv) R&R of Yellandu town shall be not less than that based on norms prescribed in the National R&R Policy.
- (xvi) A pre-mining survey of the socio-economic status of the local communities shall be carried out based on the UNDP Human Development Index, and the impact of R&R and CSR initiatives shall be monitored over the life of the project and reported once every 5 years.
- (xvii) For monitoring land use pattern and for post mining land use, a time series of land use maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional office at Bangalore.
- (xviii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

B. General Conditions

- (i) No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral coal and waste shall be made.
- (iii) Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring SPM, RPM, SO₂, NO_x and heavy metals such as Hg, Pb, Cr, As, etc. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.
- (iv) Fugitive dust emissions (SPM and RSPM and heavy metals such as Hg, Pb, Cr, As, etc) from all the sources shall be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points shall be provided and properly maintained.
- (v) Data on ambient air quality (SPM, RSPM, SO₂, NO_x and heavy metals such as Hg, Pb, Cr, As, etc) shall be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board and the Central Pollution Control Board once in six months.

- (vi) Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.
 - (vii) Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.
 - (viii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.
 - (ix) Environmental laboratory shall be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
 - (x) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.
 - (xi) A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
 - (xii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhopal.
 - (xiii) The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
 - (xiv) A copy of the will be marked to concerned Panchayat/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.
 - (xv) State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
 - (xvi) The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at <http://envfor.nic.in>. The compliance status shall also be uploaded by the project authorities in their website and regularly updated at least once in six months so as to bring the same in the public domain. The monitoring data of SOPM, RSPM, SO_x, NO_x, etc, shall also be displayed at the entrance of the project premises and mines office and in corporate office.
3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.
4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.
5. The above conditions will be enforced *inter-alia*, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981,

the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules. The proponent shall ensure to provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.



(Dr.T.Chandini)
Director

Copy to:

1. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Andhra Pradesh, Secretariat, Hyderabad.
3. Chief Conservator of Forests, Regional office (SZ), Ministry of Environment & Forests, 4th Floor, F-Wing, Kenriya Sadan Block, Kormangala, Bangalore - 560034.
4. Chairman, Andhra Pradesh State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanatnagar, Hyderabad - 500038.
5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. District Collector, Khammam, Government of Andhra Pradesh.
8. Monitoring File 9. Guard File 10. Record File

No. J-11015/31/2013-IA-II (M)
Government of India
Ministry of Environment, Forest & Climate Change
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi-3

Dated: 3rd March, 2016

To,

The Director, (Planning & Projects)
M/s Singareni Collieries Company Ltd. (SCCL),
Bhadrachalam Road Railway Station,
Kothagudam Collieries
Khammam District – 507101,
(Telangana)

Email: gm_env@scclmines.com

Sub: Expansion of Jawahar Khani - 5 Opencast Coal Mine Project from 2.0 MTPA to 2.50 MTPA in ML area of 514.95 ha Village Sudimalla, Mandal Yellandu, District Khammam (Telangana) of M/s The Singareni Collieries Company Limited- Environmental Clearance - reg.

Sir,

This is with reference to your letter No.CRP/ENV/A/417/61 dated 28.01.2013 and revised application No. CRP/ENV/A/417/536 dated 03.08.2013 along with the application for expansion of production under section 7(ii) of the EIA Notification, 2006. EC was granted to the project vide letter no. J-11015/358/2006-IA-II (M) of dated 18.05.2009. Reference is also invited to the letter Nos CRP/ENV/A/427 dated 28.09.2015, 30.12.2015, 06.01.2016, 08.01.2016 for environmental clearance on the above-mentioned subject.

2. The Ministry of Environment, Forest & Climate Change has considered the application. It is noted that the proposal is for grant of environmental clearance for **Expansion of Jawahar Khani - 5 opencast coal mine project from 2.0 MTPA to 2.50 MTPA in ML area of 514.95 ha Village Sudimalla, Mandal Yellandu, District Khammam (Telangana) of M/s The Singareni Collieries Company Limited**

3. The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Projects in its 5th EAC meeting held on 25th -26th November, 2013 and 49th meeting held on 7th - 8th January, 2016. The details of the project, as per the documents submitted by the project proponent (PP), and also as informed during the above said EAC meetings, are reported to be as under:-

- i. The Expansion is under 7(ii) of EIA Notification, 2006.
- ii. The project with its production capacity of 2 MTPA was accorded EC vide letter no. J-11015/358/2006-IA.II (M) dated 18.05.2009.
- iii. The latitude and longitude of the project are 17° 33' 59" to 17° 35' 25" (North) and 80° 18' 51" to 80° 19' 51" (East) respectively.



iv. The land usage of the project will be as follows:

Pre-mining:

Land Use Land Cover Class		Area of Sub Class	
		Area in Ha	% of Usage
Agriculture			
	Crop Land	0.68	0.13
	Fallow Land	11.75	2.28
	Plantations	5.80	1.17
Waste Land			
	Land with/without scrub	208.62	40.58
Others			
	Built Up Land	26.55	5.17
	Mine Pit	87.44	17.04
	Dump	54.71	10.37
	Dump with plantation	75.20	14.65
	Coal Dump	12.14	2.36
	Haul Roads	21.07	4.11
	Other Roads	7.57	1.48
	Surface Water	3.42	0.67
Total Area		514.95	100.00

Post-mining:

Sl. No.	Description	LAND USE DETAILS (Ha.)				
		Plantation	water body	Public use	Other uses	Total
1	Top Soil Rehandled area	16.69	-	-	-	16.69
2	External waste dump	247.04	-	-	-	247.04
3(a)	Excavation (Backfill)	94.31	--	--	--	94.31
(b)	Excavation (Voids only)	-	55.64	--	--	55.64
4	Road	-	-	7.41	-	7.41
5	Built up area / Infrastructure	-	-	-	4.46	4.46
6	Safe barrier, Roads, Drainage around Quarry & Dumpyard.	89.40	-	-	-	89.4
7	Other uses	-	-	-	--	0
	TOTAL	447.44	55.64	7.41	4.46	514.95

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Core area:

Particulars	Total Land Required	Land Under Possession	Land To be acquired		
			Govt.	Private (Agriculture)	Total
Quarry Area	149.95	142.29	7.66	0.00	7.66
Safe barrier, Roads, Drainage around Quarry & Dumpyard.	106.09	87.56	8.35	10.18	18.53
External dump yard	247.04	223.55	0.00	23.49	23.49
Mine Service Facilities	4.46	4.46	0.00	0.00	0.00
Diversion of Road	7.41	4.86	2.55	0.00	2.55
Total	514.95	462.72	18.56	33.67	52.23

- v. The total geological reserve is 26.30 MT. The mineable reserve are 23.67 MT, extractable reserve is 19.97 MT. The extraction would be 90 %.
- vi. The coal grades is G-13. The average Gradient is from 1 in 6.5 to 1 in 7.5. There will be total five seams with thickness ranging from 0.10 to 20.23 m.
- vii. The total estimated water requirement is 1415 m³/day. The level of ground water ranges from Pre monsoon (2012): 1.90 m to 11.90 m ; Post Monsoon (2012): 0.10 m to 9.70 m.
- viii. The Method of mining would be opencast deploying Shovel/Backhoe-Dumper Technology.
- ix. There is one external OB dump covering an area of 247.04 ha having a height upto 60 m with the quantity of 57.858 m³ (B). There is one internal dump covering an area of 94.31 ha having a height upto 30 m with the quantity of 46.242 m³. There is a quarry area of 149.94 ha.
- x. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.
- xi. The life of mine is 8 Years.
- xii. Transportation: Coal transportation in pit to surface CHP by dumper for 1 km. Surface to Siding by Trucks 3.5 km and Siding to loading by wagon.
- xiii. There is R & R involved. There are 1429 PAFs for these production.
- xiv. Cost: Total capital cost of the project is Rs. 116.99 Crore. CSR Cost (Rs. 5/- per tonne of coal.). R&R Cost Rs. 65.38 Crore. Environmental Management Cost is Capital cost – Rs. 4.23 Crore Recurring – Rs. 16.94 per Tonne.
- xv. Water body: Streamlet (Bugga Vagu) flowing adjacent to the mining block on northwesterly is proposed for realignment. (Earlier Proposal only).
- xvi. Approvals: Clearance for abstraction of ground water has been obtained vide letter No. 1088/T/SCCL/2006-07 dt 04.08.2007. Revised Mining Plan/ Mine closure plan for requested capacity approved by MOC vide letter No. 13016/20/2005-CA-II dated 15th September, 2015.
- xviii. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- xix. Forestry issues: No forest area involved for mining area.
- xx. Total afforestation plan shall be implemented covering an area of 447.44 ha at the end of mining. Green Belt over an area of 106.09 ha. Density of tree plantation 2500 trees/ ha of plants. Void in 55.64 ha at a depth of 35 m which is proposed to be converted into water body.
- xxi. There are no court cases/violation pending with the project proponent.
- xxii. The revised feasibility report of Mine Plans is under circulation with technical committee. This will be sent to Company's Board for approval.

4. The proposal was earlier considered during the 5th EAC meeting held on 25-26 November, 2013. The Committee had recommended the proposal for grant of EC. However the same was not taken forward due to non submission of the revised mining Plan duly approved by Competent Authority.

5. The EAC, after detailed deliberations on the proposal in its 49th meeting held on 7th -8th January, 2016 has recommended the project for grant of Environmental Clearance. The Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the **Expansion of Jawahar Khani - 5 opencast coal mine project from 2.0 MTPA to 2.50 MTPA in ML area of 514.95 ha Village Sudimalla, Mandal Yellandu, District Khammam (Telangana) of M/s The Singareni Collieries Company Limited** under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions:

- i. The maximum production from the mine at any given time shall not exceed the limit as prescribed in the Environmental Clearance (EC).
- ii. The validity of the EC is for the life of the mine or as specified in the EIA Notification, 2006, whichever is earlier.
- iii. The PP will not alter the major channels around the site.
- iv. Efforts shall be made to explore the availability of mechanically covered trucks.
- v. All statutory permissions/MoU from State Government shall be obtained for transportation of coal by road.
- vi. Coal transportation in pit by tippers, surface to siding by tippers and siding to loading by pay loaders into rail wagons.
- vii. The production shall be within the same Mine Lease area.
- viii. The OB shall be completely re-handled at the end of the mining.
- ix. Final mine void depth will not be more than 40 m. The void area will be converted into water body. The remaining area will be back filled up to the ground level and covered with about a meter thick top soil and put to use.
- x. Garland drains be provided.
- xi. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine.
- xii. The land after mining shall be restored for agriculture purpose.
- xiii. Mine water should be treated for discharge into the lagoon. The quality of lagoon water shall be regularly monitored and mitigation measures taken.
- xiv. The CSR cost should be Rs 5 per tonne of coal produced which should be adjusted as per the annual inflation.
- xv. Everybody in the core area should be provided with mask for protection against fugitive dust emissions.
- xvi. Dust mask to be provided to every worker in the mining area.
- xvii. The supervisory staff should be held personally responsible for ensuring compulsory wearing of dust mask in the core area.
- xviii. People working in the core area should be periodically tested for the lung diseases and the cost to be met by PP.
- xix. The mining area should be surrounded by green belt having tree cover with thick closed canopy.
- xx. The embankment constructed along the river boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side and stabilised with plantation so as to withstand the peak water flow and prevent mine inundation.
- xxi. There shall be no overflow of OB into the river and into the agricultural fields and massive plantation of native species shall be taken up in the area between the river and the project.
- xxii. OB shall be stacked at two earmarked external OB dumpsite(s) only. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsites shall continue until

- the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forests & Climate Change and its concerned Regional Office on yearly basis.
- xxiii. Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly. Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.
- xxiv. Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.
- xxv. Crushers at the CHP of adequate capacity for the expansion project shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.
- xxvi. Drills shall be wet operated.
- xxvii. The PP shall undertake regular repairing and tarring of roads used for mineral transportation. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach roads,
- xxviii. Controlled blasting shall be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.
- xxix. A Progressive afforestation plan shall be implemented covering an area of **447.44 Ha** at the end of mining, which includes reclaimed External OB dump area (**247.04 Ha**), Internal OB dump area (**94.31 Ha**) and Green belt (**106.09 Ha**) and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Massive plantation shall be carried out in open spaces in and around the mine and a 3-tier avenue plantation along the main approach roads to the mine.
- xxx. An estimated total **104.10 Mm³** of OB will be generated during the entire life of the mine. Out of which **57.858 Mm³** of OB will be dumped in **1** external OB Dumps an earmarked area covering **247.04 Ha** of land. **46.242 Mm³** of will be **one** internal OB dump in covering an area of **94.31 Ha**. The maximum height of external OB dump will not exceed **90 m** and that for soft OB shall not exceed **60 m**. The maximum slope of the dump shall not exceed 28 degrees. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self- sustaining and compliance status shall be submitted to MOEFCC and its Regional Office on yearly basis.
- xxxi. The proponent should prepare restoration and reclamation plan for the degraded area. The land be used in a productive and sustainable manner.
- xxxii. Compensatory Ecological Restoration of waste land, other degraded land and OB dumps in lieu of breaking open the land be carried out.
- xxxiii. The mining should be phased out in sustainable manner. No extra over burden dumps are permitted.
- xxxiv. No groundwater shall be used for mining operations.
- xxxv. Of the total quarry area of **149.95 Ha**, the backfilled quarry area of **94.31 Ha** shall be reclaimed with plantation and a void of **55.64 Ha at a depth of 35 m** is proposed to be converted into a water body shall be gently sloped and the upper benches shall be terraced and stabilised with plantation/afforestation by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around **2500** plants per ha.
- xxxvi. Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the Ministry of Environment, Forests & Climate Change and to the Central Pollution Control Board quarterly within one month of monitoring.
- xxxvii. The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring indicates a decline in water table. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.

- xxxviii. Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater.
- xxxix. Besides carrying out regular periodic health check-up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, through an specialised agency /institution within the District/State and the results reported to this Ministry and to DGMS.
- xl. Land oustees shall be compensated as per the norms laid out R&R Policy of CIL or the National R&R Policy or R&R Policy of the State Government whichever is higher.
- xli. For monitoring land use pattern and for post mining land use, a time series of land use maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEFCC and its concerned Regional Office
- xlii. A detailed Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forests & Climate Change within 6 months of grant of Environmental Clearance.
- xliii. The project authorities shall in consultation with the Panchayats of the local villages and administration identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine.
- xliv. Corporate Environment Responsibility:

- a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.
- b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
- c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
- d) To have proper checks and balances, the Company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large.

B. General Conditions:

- (i) No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment, Forest & Climate Change.
- (ii) No change in the calendar plan of production for quantum of mineral coal shall be made.
- (iii) Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM₁₀, PM_{2.5}, SO₂ and NO_x monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months.
- (iv) Data on ambient air quality (PM₁₀, PM_{2.5}, SO₂ and NO_x) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its concerned Regional Office and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EPA rules, 1986 shall be furnished as part of compliance report.
- (v) Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.
- (vi) Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.

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- (vii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.
- (viii) Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EPA Rules, 1986.
- (ix) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
- (x) Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.
- (xi) A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the Company.
- (xii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.
- (xiii) The PP shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the issue of EC letter informing that the project has been accorded environmental clearance and a copy of the EC letter is available with the State Pollution Control Board and may also be seen at the website of the Ministry of Environment, Forests & Climate Change at <http://envfor.nic.in>.
- (xiv) A copy of the EC letter shall be marked to concern Panchayat/Zila Parishad, Municipal Corporation or Urban local body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the EC letter shall also be displayed on company's website.
- (xv) A copy of the EC letter shall be shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Sector and Collector's Office/Tehsildar's Office for 30 days.
- (xvi) The EC letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM₁₀, PM_{2.5}, SO₂ and NO_x (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website.
- (xvii) The PP shall submit six monthly compliance reports on status of compliance of the stipulated EC conditions (both in hard copy and in e-mail) to the respective Regional Office of the Ministry, respective Zonal Office s of CPCB and the SPCB.
- (xviii) The Regional Office of this Ministry located in the Region shall monitor compliance of the stipulated conditions. The PP shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
- (xix) The Environmental Statement for each financial year ending 31 March in For -V is mandated to be submitted by the PP for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the Company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail.

6. The PP shall abide by all the commitments and recommendations made in the EIA/EMP report so also during their presentation to the EAC.

7. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent.

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8. The project proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

9. The PP shall set up an Environment Audit cell with responsibility and accountability to ensure implementation of all the EC Conditions.

10. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this EC and attract action under the provisions of Environment (Protection) Act, 1986.

11. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter. The PP shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.

12. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

13. This EC supersedes the earlier EC letter No. J-11015/358/2006-IA.II (M) dated 18.05.2009.

SKS
3/3/2016
(S. K. Srivastava)
Scientist E

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Secretary, Department of Environment, Forest & Climate Change, Government of Telangana, Secretariat, Hyderabad
3. The Chief Conservator of Forest, Regional office (SZ), Ministry of Environment, Forest & Climate Change, 4th Floor, F-Wing, Kenriya Sadan Block, Kormangala, Bangalore – 560034
4. The Member Secretary, Telangana State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanatnagar, Hyderabad – 500038
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032
6. The Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
7. District Collector, **Khammam**, Government of Telangana
8. Monitoring File 9. Guard File 10. Record File 11. Notice Board.

SKS
3/3/2016
(S. K. Srivastava)
Scientist E



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Director (Planning & Projects)
THE SINGARENI COLLIERIES CO LTD

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/TG/CMIN/212245/2018 dated 23 Jul 2021. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---------------------------------|
| 1. EC Identification No. | EC22A042TG126745 |
| 2. File No. | 23-257/2018-IA(III) |
| 3. Project Type | Expansion |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | JAWAHAR KHANI-5 OC PROJECT |
| 7. Name of Company/Organization | THE SINGARENI COLLIERIES CO LTD |
| 8. Location of Project | Telangana |
| 9. TOR Date | 27 Sep 2019 |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 10/06/2022

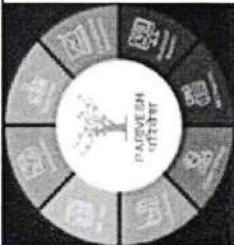
(e-signed)
Lalit Bokolia
Scientist F
IA - (Coal Mining sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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PARIVESH

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and Virtuous Environment Single-Window Hub)*



F. No. 23-257/2018- IA(III)]
Government of India
Ministry of Environment, Forest & Climate Change
(Impact Assessment Division)

2nd Floor Vayu Wing,
Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi – 3
Email: lk.bokolia@nic.in Tel: 011-20819417

Dated: 9th June , 2022

To,

The Director (Planning & Projects)
M/s The Singareni Collieries Company Ltd (SCCL),
Kothagudam Collieries (PO)
Bhadradri- 507101 (Telangana)
Email: gm_env@scclmines.com env_crp@scclmines.com

Sub: Expansion of Jawahar Khani– 5 Opencast coal mine project from production capacity of 2.50 MTPA to 3.50 MTPA in existing project area of 490.14 ha of M/s The Singareni Collieries Company Limited (SCCL) located at village Sudimalla & Usirikayapalli, Mandal Yellandu, District Bhadradri Kothagudem (Telangana) - For Environment Clearance – reg.

Sir,

This has reference to your online proposal No. IA/TG/CMIN/212245/2018 dated 23rd July, 2021 for grant Environment Clearance in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986 for Expansion of Jawahar Khani– 5 Opencast coal mine project from production capacity of 2.50 MTPA to 3.50 MTPA in existing project area of 490.14 ha of M/s The Singareni Collieries Company Limited (SCCL) located at village Sudimalla & Usirikayapalli, Mandal Yellandu, District Bhadradri Kothagudem (Telangana).

The project/activity is covered under category 'A' of item 1 (a) 'Mining of Minerals' the Schedule to the EIA Notification, 2006

2. The proposal was considered by the sectoral Expert Appraisal Committee (EAC) in its 17th meeting held during 9-10 August, 2021 and 26th EAC meeting on 4th February, 2022. through Video Conferencing. The details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meetings, are given as under:-

- i. The project area is covered under Survey of India Topo Sheet No 65C/6 and is bounded by the geographical coordinates ranging from latitude 17033'59" to 17035'25" N and longitudes 80018'51" to 80019'51" E.
- ii. Coal linkage of the project is proposed as per the Fuel Supply Agreement (FSA).
- iii. No Joint venture cartel has been formed.
- iv. Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of Environment clearance.
- v. Employment generation, Total employment was 333 persons will be provided from the project.
- vi. The project is reported to be beneficial in terms of socio-economics and improving living standards.
- vii. Earlier, the environment clearance to the project was obtained under EIA Notification 2006 vide Ministry's letter No J-11015/31/2013-IA-II (M) dated 3rd March, 2016 for 2.50 MTPA in mine lease area of 514.95 ha.
- viii. Terms of Reference granted vide Ministry's letter No.23-257/ 2018-A-(III) dated 27th September, 2019 based on Ministry's notification dated 14th March, 2017.
- ix. Total mining lease area as per block allotment is 490.14 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the 38011/12/2017-PCA, Approved on 12.09.2019 by MoC.
- x. The land usage pattern of the project is as follows:Pre-mining land use details (Area in Ha)

S. No	Land Use	With ML Area (Hectare)	Outside ML Area (Hectare)	Total
1	Water Bodies	3.42	NIL	3.42
2	Agriculture Land	18.23		18.23
3	Barren	208.62		208.62
4	Forest Land	--		--
5	Road	7.57		7.57
6	Grazing Land	225.75		225.75
7	Others (Township)	26.55		26.55
	Total	490.14		490.14

Post-mining land use details (Area in Ha):

S. No.	Land Use	Total area	Plantation	Water Body	Public Use
1	External OB dumps	195.56	174.59	20.97	
2	Top Soil Storage	17.32	17.32		
3	Internal OB dumps	42.27	42.27		
4	Excavation / quarry	107.68	--	107.68	
5	Road Diversion	7.41			7.41

6	Safe barrier, roads, drainage around quarry and external dump yard.	101.72	74.94	8.82	17.96
7	Road & Infrastructure area	18.18	18.18		
	Total	490.14	327.30	137.47	25.37

- xi. Total geological reserve reported in the mine lease area is 26.30 MT with 23.67 MT, mineable reserves, 22.49 MT are available for extraction. Percent of extraction is 85.5%.
- xii. One seam (Queen Seam) with thickness ranging from 5.79 to 20.23m is workable. Grade of coal is G-15, stripping ratio 3.98, average gradient is 1 in 7.
- xiii. Method of mining operations envisages by Shovel dumper combination method
- xiv. Life of mine is 1 year (2021-22).
- xv. The project has 1 external OB dumps in an area of 195.56 ha with 60 m height and 72.0 Mm³ of OB. 1 internal OB in an area of 42.27 ha with 37.25 Mm³ of OB is envisaged in the project.
- xvi. Total quarry area is 490.14 ha out of which backfilling will be done in 251.49 ha while final mine void will be created in an area of 107.68 ha with a depth of 120 m.
- xvii. Transportation of coal has been proposed as from quarry to pit head by Trucks/Dumpers, from surface to siding (pit head CHP to wharf loading, YCHP) by Road and from siding (YCHP) to customers by rail.
- xviii. Reclamation Plan in an area of 327.30 ha, comprising of 174.59 ha of external dump, 42.27 ha of internal dump and 92.26 ha of green belt. In addition to this, an area of 18.18 ha, included in the safety zone/rationalization area, has also been proposed for green belt development.
- xix. No forest land has been reported to be involved in the project.
- xx. No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project.
- xxi. The ground water level has been reported to be varying between 3.30 m to 9.89m during pre-monsoon and between 1.55 m to 7.95 m during post-monsoon. Total water requirement for the project is 2350 KLD.
- xxii. Ground Water clearance was obtaining vide Lr.No.12674/Hg.II(1)/06, dt:10.04.07.
- xxiii. Public hearing for the project of 3.50 MTPA capacity in an area of 490.14 ha was conducted on 03.03.2021 at the premises of Telangana Tribal Welfare Residential School (Girls) under the Chairmanship of the Additional collector in Bhardradri Kothagudem district and 19.03.2021 at Telangana Tribal Welfare Residential School (Boys) under the Chairmanship of the District Revenue Officer & Additional District Magistrate, Khammam District, Major issues raised in the public hearing and appropriate action to address the issues raised in the Public Hearing have already been taken / proposed to be taken.
- xxiv. Consent to Operate for the existing capacity was obtained from the State PCB No.17072998391, date: 03.01.2018 and is valid till 37.12.2022. No River/nalla is flowing in boundary of lease.
- xxv. Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to TSPCB and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits.
- xxvi. No court cases are pending. Violation cases are pending against the project of the PP.

- xxvii. The project was involved violation of the EIA Notification, 2006 and Amendment issued there under. The coal production from the mine was started in the year 2012-13. Excess production of coal from the sanctioned capacity has been realized since 2015-16.
- xxviii. R&R, not applicable, since this project is an operating project no new land is required. Hence the project does not involve project affected families.
- xxix. Total cost of the project is Rs. 131.20 crores, Cost of production is Rs. 1063 /- per tonne. CSR cost is spending 2% of its average annual net profit, R&R cost is Rs 65.38 crores (completed). Environment Management Cost is Rs.70.85 crores.

4. The Expert Appraisal Committee in its 26th EAC meeting on 4th February, 2022 has recommended the proposal for grant of Environment Clearance. Based on the recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environment Clearance to the proposal, based on submission of Bank Guarantee under violation category for **Expansion of Jawahar Khani- 5 Opencast coal mine project from production capacity of 2.50 MTPA to 3.50 MTPA in existing project area of 490.14 ha of M/s The Singareni Collieries Company Limited (SCCL) located at village Sudimalla & Usirikayapalli, Mandal Yellandu, District Bhadradi Kothagudem (Telangana), under EIA Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions for environmental safeguards:**

- (i) EAC recommended for an amount of Rs 464.5 lakhs towards Remediation plan and Natural and Community Resource Augmentation plan to be spent within a span of three years. The details of Remediation plan, Natural resource Augmentation plan and Community Resource Augmentation plan with budgetary provision are mention below

Sl. No	Component Remediation	Remediation Proposed	Description	Unit Rate Rs Lakhs	Locations	Total Cost	Year - I	Year- II
1a	Air & Noise Environment	Dust suppression	Construction of the CC Roads for a length of 1k m.	Rs.12.5 lakhs per 0.25 km.	1.Vijayalaxmi Nagar 2.Subash Nagar 3.Strut Pit Basathi 4.Bhagyanagar thanda.	50.0	50.0	--
1b	Noise Environment and Ecology	Avenue Plantation	Plantation of total 128 Nos. of native plants at Rs.1000 per	Rs. 1,000/One plan	JK colony	12.8	7.8	5.0

			sapling, including maintenance for 3 years in nearby village and periphery of the project.						
1c	Water Environment	Rain water harvesting structure	Construction of RWH (including raw material, labour, construction and maintenance for one year)	Rs.2.5 lakhs per one unit-- Total 4 units	1.Rompedu 2.Bojjaigudem 3.Motlagudem 4.Karepalli	10.0	5.0	5.0	
		Supply of potable water in surrounding villages.	RO plants of in nearby villages. 250lit/hour capacity with installation and 10 years maintenance & shed.	Rs.7.5 lakhs per one unit — Total 5 units	1.Rompedu 2.JK R&R Colony 3.Usirikayapalli 4.Bhagyanagerthanda 5.Rajanagar	37.5	22.5	15.0	
Sub-Total – A (1a+1b+1c)						Rs.	110.3	85.3	25.0

Natural Resource Augmentation Plan

Sl. No.	Component Remediation	Description	Unit Rate Rs. Lakhs	Locations	Total Cost	Year-I	Year-II
					Rs . Lakhs		
2a	Natural Resource Augmentation Plan	30W pole mounted solar LED lights (complete set) in nearby villages @Rs.28000 per unit with 3 years maintenance.	Rs.0.28 lakhs per unit – Total 196 units.	1. Usirikayapalli 2. Bhagyanagerthanda 3. Sitarampur 4. Tekulagudem 5. Rompedu 6. Nizampet 7. Vijayalaxmi Nagar 8. 21 Pit Area 9. 23 rd Ward	55.0	28.0	27.0

				10.Strut pit Basthi			
2b		Construction of check dams (Materials, manpower, construction).	Rs. 5.00 lakhs per unit – Total 9 units.	1. Usirikayapalli-2 2. Sitarampur-2 3. Karepalli-2 4. Tekulagudem-3	45.0	25.0	20.0
(2a+2b)				Sub-Total-B	100.0	53.0	47.0
			Rs.				

Community Resource Augmentation Plan

Sl. No.	Proposed Activity	Description	Unit Rate Rs. Lakhs	Locations	Total Cost	Year - I	Year - II
					Rs. In Lakhs		
3a	Development of Infrastructure	Construction of Community halls.	Rs. 24.00 lakhs per unit – Total 2 units.	1.Rompedu 2.Karepalli	48.0	24.0	24.0
3b		Godown for storage of the agriculture products in the nearby villages	Rs. 15.00 lakhs per unit – Total 3 units.	1.Usirikayapalli 2.Sitarampur 3.Rompedu	45.0	30.0	15.0
3c		Development of Parks	Rs. 10.00 lakhs per unit – Total 3 units.	1.JK colony 2. JK5 OC R&R colony vacated area. (16 th Ward) 3.Strut Pit Basthi	30.0	15.0	15.0

(3a+3b+3c)	Rs.	Sub-Total	-	C	123.0	69.0	54.0
+C)	(107.8+100+123)	Rs.	Grand Total	(A +B	333.3	207.3	126.0

1% contribution from capital cost against community welfare activities

Sl.No	Description of Activity	Location	Rate (Rs.in Lakhs)	Total Cost	Year -I	Year-II
				Rs. in Lakhs		
1	Laying of CC Roads	1.Usirikayalapally 2.Polampally 3.20th Ward of YLD 4.CSP Basthi 5.16th Ward of YLD	50 lakhs per 1 km	50.0	30.0	20.0
2	School Building & Community hall	1.Tilak Nagar 2.CSP Basthi	25 lakhs per unit	50.0	25.0	25.0
3	Park & Open Gym	16 th Ward of YLD	Rs15.6 lakhs per each unit	31.2	15.6	15.6
TOTAL				131.2	70.6	60.6

Summary

Sl. No.	Description	Revised Estimated cost (Rs. in Lakhs)
1	Remediation Plan	110.3
2	Natural Resources Augmentation Plan	100.0
3	Community Resources Augmentation Plan	123.0
4.	1% contribution on PH	131.2
Total		464.5 Lakhs

- (ii) PP to implement the works under aforesaid total budgetary provision with respect to Remediation plan and Natural & Community Resource Augmentation plan for an amount of Rs. 464.5 lakhs for which bank guarantee has been submitted to SPCB.

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- (iii) Remediation plan shall be completed within one year from date of issue of EC only. The bank guarantee will be released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.
- (iv) Further proposal of expansion/amalgamation of mine shall only be considered only when full compliance of this EC conditions alongwith compliance of Remediation plan and Natural & Community Resource Augmentation plan for amount Rs 464.5 lakhs is accomplished.
- (v) Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.
- (vi) PP shall submit the amount allocated for Wildlife Conservation plan as approved by the Competent Authority within six months of issue of this letter and shall be implemented with consent to the respective Forest division and intimation to PCCF regarding the activities to be carried should be also be sent
- (vii) The Environmental Clearance will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (viii) State Government concerned shall ensure that mining operation shall not commence till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (ix) Effective dust suppression system shall be adopted at the transportation site and in the other parts of the mining lease to arrest the fugitive dust emission
- (x) Project proponent shall take necessary other clearances/permissions under various Acts and Rules if any, from the respective authorities / department.
- (xi) The mining lease holder shall, after ceasing mining operations, under take re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to condition which is fit for growth of fodder, flora and fauna etc.
- (xii) State Government/SPCB to take action against the Project Proponent under the provision of Section 19 of the E(P) Act.
- (xiii) In pursuance to the Ministry's OM dated 30.09.2020, Project Proponent shall take up the following activities for community development under EMP

- (xiv) The PP must adhere to the commitment in time bound manner to address the public hearing issues like construction of check dams in Usirikayalapally (3nos), Sitarampur (2 nos), Kerapalli (2 nos) & tekulagudam (03 nos), providing street solar lights to 10 surrounding villages and construction of CC roads in Vijay laxmi nagar, Subhash nagar, Strut Pit basti, Bhagyanagar thanda, Usirikayalapally, Polampally, 20th ward of YLD, CSP Basti, 16th ward of YLD etc.
- (xv) PP must also install solar lights along the roads too which are to be constructed by PP as mentioned above conditions in all the villages
- xvi. PP shall update mine closure activity already conducted and to be pursued for final mine closure and furnish the detail to the respective IRO in December,2022
- xvii. PP shall backfill fill the entire final void up to a depth of 20 m from surface to form a water lagoon after cessation of mining activities

Periodical health check-up shall be conducted to monitor the impact of heavy metals present in core zone & buffer zone air quality and also to prepare an action plan to reduce heavy metals concentration and also report to be submitted to concerned regional office of MoEF&CC

4.1 The grant of environmental clearance is further subject to compliance of the Standard EC conditions as under:

a. Statutory compliance:

- i. The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project
- ii. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- iii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iv. The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (incase of the presence of schedule-I species in the study area)
- v. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- vi. The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- vii. Solid waste/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016

b. Air quality monitoring and preservation

- i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. to be carried out at least once in six months. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB
- ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/ mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- iv. Major approach roads shall be black topped and properly maintained.
- v. The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed that the impact of sound, dust and accidents could be appropriately mitigated.
- vi. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- vii. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
- viii. Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

c. Water quality monitoring and preservation

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

- iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- vi. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
- vii. Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff
- viii. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- ix. Industrial waste water from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste water.
- x. Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- xi. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/Gol Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.
- xii. The project proponent shall take all precautionary measures to ensure reverian/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A reverian /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

d. Noise and Vibration monitoring and prevention



- i. Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in underground mining operations, operation of HEMM, etc. shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.
- ii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

e. Mining Plan

- i. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- ii. No change in mining method i.e. UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- iii. Mining shall be carried out as per the approved mining plan (including mine closure plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- iv. Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
- v. No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
- vi. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

f. Land reclamation

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.
- iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time

- to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, alongwith fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- v. A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.
 - vi. Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.
 - vii. Native tree species shall be selected and planted over areas affected by subsidence.
 - viii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

g. **Green Belt**

- i. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. Action plan, in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
- ii. Greenbelt, consisting of three-tier plantation, of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt comprising of a mix of native species shall be developed all along the major approach roads/ coal transportation roads.

h. **Public hearing and Human health issues**

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
- ii. The Project Proponent shall undertake Occupational Health survey for initial and Periodical medical examination of the workers engaged in the Project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides carrying out regular periodic health check-up of their workers, 20% of the workers engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.
- iii. Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.
- v. Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
- vi. Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/ R&R Policy of the State Government, as applicable

- vii. The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.
- viii. **Corporate Environment Responsibility**
- ix. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- x. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- xi. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- xii. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- j. **Miscellaneous**
- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vi. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.

- vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xv. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.

6. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

7. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

8. The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of 'Common Cause Vs Union of India & others.

9. The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of the judgment of Hon'ble Supreme Court.

10. This environmental clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.

11. All the conditions mentioned in Environment Clearance vide Ministry's letter No. J-11015/31/2013-IA-II (M) dated 3rd March, 2016 for 2.50 MTPA shall also be complied.

This issues with the approval of the competent Authority


(Lalit Bokolia)
Director

Copy to: -

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The APPCF, Regional office (EZ), Ministry of Environment, Forest and Climate Change, 1st&2nd Floor, Handloom Export Promotion Council, Cathedral Garden Road, Nungambakkam, Chennai - 34 (Tamil Nadu)
3. The Secretary, Department of Environment & Forests, Government of Telangana
4. Chairman, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
5. The Member Secretary Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
6. The Chairman, Telangana State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanatnagar, Hyderabad - 38
7. The District Collector, Bhadradi Kothagudem, Government of Telangana
8. Monitoring File/Guard File/Record File 9. PARIVESH Portal


(Lalit Bokolia)
Director

File No. 23-257/2018-IA (III)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi - 3
Email: lk.bokolia@nic.in Tel: 011-20819417

Dated: 13th December, 2022

To

The Director (Planning & Projects)
M/s The Singareni Collieries Company Ltd (SCCL),
Kothagudam Collieries (PO)
Bhadradi- 507101 (Telangana)
Email: gm_env@scclmines.com env_crp@scclmines.com

Sub: Jawahar Khani Opencast Mine [Amalgamation of JK-5 OC and 21 Incline (Conversion to OC)] with a production capacity of 2.50 MTPA (Peak- 3.75 MTPA) in the project area of 1114.507 ha by M/s The Singareni Collieries Company Limited in Yellandu area, near Villages Sudimalla & Rompaid, Mandal Yellandu, District Bhadradi Kothagudem and Village Usirikayalapalle, Mandal Singareni, District Khammam (Telangana) - For Terms of References- reg.

Sir,

This has reference to your Online Proposal No. IA/TG/CMIN/403791/2022 dated 3rd November, 2022, on the above-mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for grant of Terms of Jawahar Khani Opencast Mine [Amalgamation of JK-5 OC and 21 Incline (Conversion to OC)] with a production capacity of 2.50 MTPA (Peak- 3.75 MTPA) in the project area of 1114.507 ha by M/s The Singareni Collieries Company Limited in Yellandu area, near Villages Sudimalla & Rompaid, Mandal Yellandu, District Bhadradi Kothagudem and Village Usirikayalapalle, Mandal Singareni, District Khammam (Telangana).

3. The proposal was considered by the sectoral Expert Appraisal Committee (EAC) in the Ministry in its 33rd meeting held during 25-26 July, 2022 and in 37th meeting held during 17 -18 November, 2022 for grant of Terms of References. The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under: -

- (i) The project area is covered under Survey of India Topo Sheet No. 65 C/6 and is bounded by the geographical coordinates ranging from Latitudes 17° 32' 44" to 17° 37' 10" & Longitudes E 80° 17' 38" to 80° 20' 27".
- (ii) Coal linkage of the mine is proposed as per Fuel Supply Agreement of the Company.
- (iii) Joint venture cartel has been formed - Not Applicable.

- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation to 657 (SCCL: 122, Indirect including outsourcing: 535) persons will be provided from the project.
- (vi) The project is reported to be beneficial in terms of socio-economic and improving living standards.
- **Social:** Infrastructure facilities like drinking water supply, sanitation, roads, culverts, community halls, street lighting, Education, Medical, Recreation, Business establishments etc., will be improved in the surrounding villages through CSR activities. Excess mine discharge water will be utilized for irrigation and ground water recharge.
 - **Financial:** Direct and indirect employment opportunities to local people in will be created through contract works such as coal transport, ancillary material supply like supporting material, spare parts, explosives, services, etc. Income will be generated to State and Central Govt. in the form of taxes.
 - **Environmental:** Parks will be developed in the area; Avenue plantation will be taken up in along the roads; Extensive plantations will be taken up in the area; Environmental awareness will be created in the area; Fruit bearing and other saplings will be distributed at free of cost to the schools and surrounding villages; De-silting of surrounding irrigation tanks and Construction of rain water harvesting pits in surrounding villages.
- (vii) Earlier, Environment clearance to the project was obtained under EIA notification:
- Environmental Clearance (EC) for JK 5 Expansion project was obtained for expansion of project from 2.50 MTPA to 3.50 MTPA under violation category vide EC Identification No.EC22A042TG126745 and F. No. 23-257/2018-IA (III), dated 09th June, 2022.
 - Environmental Clearance (EC) for 21 Incline was obtained for 0.65 MTPA vide Lr. No. J-11015 /930 / 2007-IA.II(M), dated 27th October, 2008.
- (viii) Total Project area is 1114.507 ha :
- 524.96 Ha covered in Yellandu Mining Lease (YML) for an area of 524.96 Ha granted for a period of 20 years vide G.O.MS. No. 5, dated 6th February, 2015 and valid up to 31st December, 2034.
 - 589.547 Ha covered in Yellandu Additional Mining Lease (YAML) for an area of 1741 Ha granted for a period of 20 years vide G.O.Ms. No. 278, dated 23rd October, 2007 and valid up to 14th April, 2024.
- (ix) Mining Plan (Including Mine Closure plan) (4th Modification) for Jawahar Khani Opencast (JK OC) Mine [Amalgamation of JK-5 Opencast and 21 Incline (Conversion to OC)] was approved by MoC, GOI vide Lr. No. 34011/1/2020-CPAM, dated 29.10.2020.
- (x) The land usage pattern of the project is as follows:

Pre-mining land use details (Area in ha):

Type	Land use	Within ML Area	Outside ML Area	Total
Tenancy	Agricultural	7.650	Nil	7.650
	Township	Nil	Nil	Nil
	Grazing	Nil	Nil	Nil

	Barren	12.330	Nil	12.330
	Water Bodies	Nil	Nil	Nil
	Road	Nil	Nil	Nil
	Community/Other	Nil	Nil	Nil
Govt Non-Forest	Agricultural	Nil	Nil	Nil
	SCCL Quarters	51.0763	Nil	51.0763
	Grazing	Nil	Nil	Nil
	Barren/Other Use	804.8560	Nil	804.8560
	Water Bodies	2.692	Nil	2.692
	Road & Railways	22.8950	Nil	22.8950
Forest	Reserve	213.0077	Nil	213.0077
	Protected	Nil	Nil	Nil
Free Hold		Nil	Nil	Nil
Total		1114.507		1114.507

During Mining Land Use Details (Area in ha):

Type	Land use (Proposed) (Ha)	Land Use (End of Life) (Ha)	Land Use (Post Closure) (Ha)						Total
			Agricultural Land	Plantation	Water Body	Public/Company Use	Forest Land (Returned)	Undisturbed	
Excavation Area	531.570								
Backfilled Area		368.435	61.958	277.7168			28.7602		368.435
Excavated Void		163.135			76.2951		86.8399		163.135
Top Soil Dump	11.910	11.910		11.910					11.910
External Dump	195.556	195.556		195.556					195.556
Safety Zone	158.726	158.726		119.6225		10.3773	28.7262		158.726
Diversion/ below River/Nalla/ canal	1.928	1.928			1.577		0.351		1.928
Settling Pond	7.978	7.978			4.4462		3.5318		7.978
Road & Infrastructure area	80.327	80.327		69.571		10.756			80.327
Garland drains	13.266	13.266			11.0322		2.2338		13.266
Embankment	1.409	1.409					1.409		1.409
Undisturbed Area	111.837	111.837					61.1558	50.6812	111.837
Total	1114.507	1114.507	61.958	674.3763	93.3505	21.1333	213.0077	50.6812	1114.507

During Mining Land Use Details (Area in ha):

S.No	Type	Total area	Reclaimed area	Un-reclaimed are
1	Excavation/Quarry area			
	(a) Backfilled areas	368.435	368.435	-
	(b) Excavated void	163.135	-	163.135
2	Top soil dump	11.910	11.910	-
3	External dump	195.556	195.556	-
4	Safety zone	158.726	147.242	11.484
5	Diversion below river/nallah/canal	1.928	-	1.928
6	Settling Pond	7.978	-	7.978
7	Road and onrastructure	80.327	69.5710	10.7560
8	Garland drains	13.266	-	13.266
9	Embankment	1.409	1.409	-
10	Undisturbed Area	111.837		111.837
Total		1114.507	794.123	320.384

- (xi) Total geological reserve reported in the mine lease area is 99.12 MT with 74.68 MT minable coal reserve and Extractable reserves are 68.57 MT. Percent of extraction is 91.81 %. 41.65 MT is already extracted and balance extractable reserves are 26.92 MT (As on 31.03.2020).
- (xii) 2 seams present with thickness ranging from 0.90 to 3.10 m (Index Seam) and from 5.70 to 13.67 m thickness (Queen Seam). Grade of coal is G-13, stripping ratio 11.98), while gradient is 1 in 4.3 to 1 in 13.5.
- (xiii) Method of mining operations by Opencast Mining method with Shovel- Dumper combination.
- (xiv) Life of mine is 14 years (From 01.04.2020).
- (xv) The project has one external OB dump with an area of 195.556 ha with 60 m height and 82.59 Mm³ of OB is envisaged in the project. Two internal dumps with an area of Pit-1-149.95 Ha & Pit-2-218.485 Ha with 120 m height and Pit-1-107.29 & Pit-2-225.19 Mm³ of OB is envisaged in the project.
- (xvi) Total quarry area is 531.570 ha, out of which backfilling will be done in 368.435 ha while final mine void will be created in an area of 163.135 ha with a depth of 190 m. Backfilled quarry area of 368.435 ha shall be reclaimed with plantation. Final mine void will be converted as Water body.
- (xvii) Transportation of coal has been proposed by coal from quarry to In-pit mobile crushers by dumpers and to wagon loading by belt conveyors and to the customers by Rail to end users.
- (xviii) Reclamation Plan in an area of 794.123 ha, comprising of 195.5560 ha of the external dump, 306.477 ha of internal dump, 221.11 ha of green belt and 70.98 in road & infrastructure and embankment.
- (xix) 213.0077 ha of forest land have been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980. The details of forest land diversions for surface rights are furnished below.
- a. For Surface Rights - 151.8519 Ha. (Online application (Proposal No. FP/TG/MIN/49581/2020) was submitted to MoEF & CC on 18.09.2020 for surface rights 151.8519 Ha)

- b. For Underground Rights - 61.1558 Ha (UG rights were already obtained)
- i. vide F.No. 8-54/91-FC(PL), dated 25.07.2008 & valid up to 14.04.2024.
 - ii. vide F.No. 8-260/1985-FC, dated 20.07.2018 & valid up to 31.12.2034.
- (xx) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project.
- (xxi) A Wild life conservation plan for Schedule-I species (Four horned Antelope, Indian Monitor Lizard and Indian Pea Fowl) was prepared and approved by the Principal Chief Conservator of Forests and Chief Wildlife Warden for an amount of Rs.342.05 lakhs.
- (xxii) The ground water level has been reported to be varying between 2.35 to 10.25 m during pre-monsoon period and 0.55 to 6.86 m during post-monsoon period. Total water requirement for the project is about 1310 KLD.
- (xxiii) Application for obtaining the approval of the State Ground Water Authority for Ground Water Clearance will be submitted after getting EC.
- (xxiv) Consent to Operate:
- CTO for JK 5 Expansion project was obtained from SPCB vide order No. 17072998391, dated 03-01-2018 and is valid up to 31.12.2022.
 - CTO for 21 Incline was obtained from SPCB vide order No. 17082998052, dated 03-01-2018 and is valid up to 31.12.2022.
- (xxv) Bugga Vagu, a seasonal nallah flowing within the project area (undisturbed) and is not proposed for diversion. Another seasonal nallah flowing adjacent to the project (near pit-2).
- (xxvi) Regular monitoring of ambient air quality: Monitoring is being carried out and will be continued in the proposed project.
- (xxvii) No court cases, violation cases are pending against the project of the PP.
- (xxviii) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under.
- (xxix) The project involves does not involve R&R.
- (xxx) Total cost of the Project is Rs. 297.88 Crores. CSR cost is 2% of average net profits of the company made during last three years are being allocated for CSR at company level. Environment Management Cost is as follows: Direct cost: Rs. 18.33 Crores, Revenue cost: Rs.1.00 Core per Annum (Rs. 5.30 /Ton).

4. The Expert Appraisal Committee in its 37th EAC meeting held during 17 -18 November, 2022 through Video Conferencing has recommended the proposal for grant of Terms of References (ToR). Based on the recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby grants approval to the Terms of References for **Jawahar Khani Opencast Mine [Amalgamation of JK-5 OC and 21 Incline (Conversion to OC)] with a production capacity of 2.50 MTPA (Peak- 3.75 MTPA) in the project area of 1114.507 ha by M/s The Singareni Collieries Company Limited in Yellandu area, near Villages Sudimalla & Rompaid, Mandal Yellandu, District Bhadradi Kothagudem and Village Usirikayalapalle, Mandal Singareni, District Khammam (Telangana)**, for preparation of EIA/EMP reports with public consultations/hearing, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto, subject to the compliance of the following terms and conditions as specified/notified in the standard ToR applicable for opencast coal mines, along with the additional conditions as under:-

- (i) Public Consultation, including public hearing, shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal. PP should submit the real time aerial footage and video of the Mining lease area made through drone.
- (ii) PP shall carry out drone survey of mine lease area (both mines)
- (iii) PP shall submit the plan for implementation of continuous air quality monitoring station.
- (iv) PP shall apply for EC only after compliance of earlier EC conditions upto 90% (including 90-100% compliance of Remediation Plan and Natural and Community Augmentation Plan) and the same shall be certified by Ministry's IRO.
- (v) PP shall obtain 5-star rating in terms of Environment Compliance from Ministry of Coal as per rating system implemented by Ministry of Coal.
- (vi) PP shall prepare the Mining Plan in such a manner that condition prescribed by EAC shall intact from environment point of view. EIA-EMP shall accordingly be prepared on the suggested stipulation with point-wise compliance & in accordance with recommendations of Mining Plan.
- (vii) PP shall submit the Stage-I FC for the forest land of involved in total mine lease area.
- (viii) PP shall prepare progressive mine closure plan from remediation and reclamation point of view for mine lease area.
- (ix) PP shall prepare adequate EMP addressing the issues raised in the last public hearing including redressal of public comments arising from public notices and provide sufficient budgetary provision to implement the plan.
- (x) PP shall explore the possibilities of utilization of OB material for different purposes (in construction of roads, manufacture of artificial sand, aggregates, use for farmers etc.) and accordingly Plan shall be included in EIA/EMP Report.
- (xi) PP shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.
- (xii) PP shall explore the possibilities of utilization of OB material for different purposes (in construction of roads, manufacture of artificial sand, aggregates, use for farmers etc.) and accordingly Plan shall be included in EIA/EMP Report.
- (xiii) Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.
- (xiv) Detailed report on comparison of diesel consumption and CO2 emission by using conventional shovel dumper method and surface miner cum shovel dumper (for OB) shall be prepared and submitted.
- (xv) PP shall submit three-dimensional (3D) Modelling of progress of mining activity (stage wise) vis-à-vis impact of extraction of ground water
- (xvi) PP shall not use forest land for any other purpose other than extracting coal and all other activities shall be proposed on non-forest areas only.

4.1. This grant of Terms of References (ToR) for the said project is further subject to the general conditions as under

- (i) All documents should be properly indexed, page numbered.
- (ii) Period/date of data collection should be clearly indicated.
- (iii) Authenticated English translation of all material provided in Regional languages.

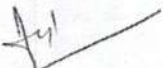
- (iv) After the preparation of the draft EIA-EMP Report as per the aforesaid TOR, the proponent shall get the Public Hearing conducted as prescribed in the EIA Notification 2006 and take necessary action for obtaining environmental clearance under the provisions of the EIA Notification 2006.
- (v) The letter/application for EC should quote the Ministry's file No. and also attach a copy of the letter prescribing the ToR.
- (vi) The copy of the letter received from the Ministry on the ToR prescribed for the project should be attached as an annexure to the final EIA-EMP Report.
- (vii) General Instructions for the preparation and presentation before the EAC of ToR/EC projects of Coal Sector should be incorporated/ followed.
- (viii) The aforesaid ToR has a validity of **Four** years only.
- (ix) Grant of ToR does not necessarily mean grant of EC.
- (x) Grant of ToR to the present project does not necessarily mean grant of TOR/EC to the captive/linked project.
- (xi) Grant of ToR to the present project does not necessarily mean grant of approvals under the Forest (Conservation) Act, 1980 or the Wildlife (Protection) Act, 1972.
- (xii) Grant of EC is also subject to circulars issued under the EIA Notification 2006, which are available on the Ministry's website: www.envfor.nic.in

5. Standard ToR: The EIA/EMP report should contain the information in accordance with provisions & stipulations as given in the standard ToR for opencast coal mine projects (please visit the following link to download the Standard ToR:
<http://environmentclearance.nic.in/writereaddata/standardtorreference.pdf>

6. You are required to submit the final EIA/EMP prepared as per TORs to the Ministry within 4 years as per this Ministry's Notification vide S.O 751 (E) dated 17th February, 2020 and 8th June, 2022, for considering the proposal for environmental clearance.

7. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization(s)/laboratories including their status of approvals etc. vide Notification of the MoEF dated 19th July, 2013.

This issue with the approval of the competent Authority


(Lalit Bokolia)
Director

Copy to: -

1. Deputy Director General of Forests (C), Ministry of Env., Forest and Climate Change, Integrated Regional Office, Hyderabad, 3rd Floor, Room No. 309, Aranya Bhawan, Opp. RBI, Safiabab - 500004, Hyderabad, Telangana.
2. The Secretary, Department of Environment & Forests, Government of Telangana
3. The Chairman, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001

4. The Chairman, Telangana State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanatnagar, Hyderabad – 38
5. The District Collector, Bhadradi Kothagudem, Government of Telangana
6. Monitoring File/Guard File/Record File



(Lalit Bokolia)
Director

A. Generic TOR for an opencast

- (i) An EIA-EMP Report should be prepared for a peak capacity of MTPA over an area of ha addressing the impacts of the opencast coal mine project including the aspects of mineral transportation and issues of impacts on hydrogeology, plan for conservation of flora/fauna and afforestation/plantation programme based on the generic structure specified in Appendix III of the EIA Notification 2006. Baseline data collection can be for any season except monsoon.
- (ii) The EIA-EMP report should also cover the impacts and management plan for the project specific activities on the environment of the region, and the environmental quality – air, water, land, biotic community, etc. through collection of baseline data and information, generation of baseline data on impacts for MTPA of coal production based on approval of project/Mining Plan.
- (iii) A Study area map of the core zone and 10km area of the buffer zone (15 km of the buffer zone in case of ecologically sensitive areas) delineating the major topographical features such as the land use, drainage, locations of habitats, major construction including railways, roads, pipelines, major industries/mines and other polluting sources, which shall also indicate the migratory corridors of fauna, if any and the areas where endangered fauna and plants of medicinal and economic importance are found in the area.
- (iv) Map showing the core zone along with 3-5 km of the buffer zone) delineating the agricultural land (irrigated and unirrigated, uncultivable land (as defined in the revenue records), forest areas (as per records) and grazing land and wasteland and water bodies.
- (v) Contour map at 3m interval along with Site plan of the mine (lease/project area with about 3-5 km of the buffer zone) showing the various surface structures such as buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within/adjacent to the ML), green belt and undisturbed area and if any existing roads, drains/natural water bodies are to be left undisturbed along with details of natural drainage adjoining the lease/project and modification of thereof in terms of construction of embankments/bunds, proposed diversion/rechannelling of the water courses, etc., highways, passing through the lease/project area.
- (vi) Original land use (agricultural land/forestland/grazing land/wasteland/water bodies) of the area. Impacts of project, if any on the landuse, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations. Extent of area under surface rights and under mining rights.

S.N.	ML/Project Land use	Area under Surface Rights (ha)	Area Under Mining Rights (ha)	Area under Both (ha)
1.	Agricultural land			
2.	Forest Land			
3.	Grazing Land			
4.	Settlements			
5.	Others (specify)			

Area Under Surface Rights

S.N.	Details	Area (ha)	Forest Land	Agr. land	Wasteland	Settlements	Others
1.	Buildings						
2.	Infrastructure						
3.	Roads						
4.	Others (specify)						
	TOTAL						

- (vii) Study on the existing flora and fauna in the study area carried out by an institution of relevant discipline and the list of flora and fauna duly authenticated separately for the core and buffer zone and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna. The flora and fauna details should be furnished separately for the core zone and buffer zone. The report and the list should be authenticated by the concerned institution carrying out the study and the names of the species scientific and common names) along with the classification under the Wild Life Protection Act, 1972 should be furnished.
- (viii) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working plan/scheme until end of mine life should be reflected on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps should also be included.
- (ix) Impact of mining on hydrology, modification of natural drainage, diversion and channelling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (x) Collection of one-season (non-monsoon) primary baseline data on environmental quality – air (PM₁₀, PM_{2.5}, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, AS, etc), noise, water (surface and groundwater), soil along with one-season met data.
- (xi) Map of the study area (core and buffer zone) clearly delineating the location of various monitoring stations (air/water/soil and noise – each shown separately) superimposed with location of habitats, wind roses, other industries/mines, polluting sources. The number and location of the stations should be selected on the basis of the proposed impacts in the downwind/downstream/groundwater regime. One station should be in the upwind/upstream/non-impact non-polluting area as a control station. Wind roses to determine air pollutant dispersion and impacts thereof shall be determined. Monitoring should be as per CPCB guidelines and standards for air, water, noise notified under Environment Protection Rules. Parameters for water testing for both ground and surface water should be as per ISI standards and CPCB classification of surface water wherever applicable.
- (xii) Impact of mining and water abstraction and mine water discharge in mine on the hydrogeology and groundwater regime within the core zone and 10km buffer zone including long-term modelling studies on the impact of mining on the groundwater regime. Details of rainwater harvesting and measures for recharge of groundwater should be reflected wherever the areas are declared dark/grey from groundwater development.
- (xiii) Study on subsidence, measures for mitigation/prevention of subsidence, modelling subsidence prediction and its use during mine operation, safety issues.

- (xiv) Detailed water balance should be provided. The breakup of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the competent authority in the State Govt. and impacts vis-à-vis the competing users should be provided.
- (xv) Impact of choice of mining method, technology, selected use of machinery - and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations.
- (xvi) Impacts of mineral transportation – within and outside the lease/project. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, and their impacts on air quality should be shown in a flow chart with the specific points where fugitive emissions can arise and the specific pollution control/mitigative measures proposed to be put in place. Examine the adequacy of roads existing in the area and if new roads are proposed, the impact of their construction and use particularly if forestland is used.
- (xvii) Details of various facilities to be provided in terms of parking, rest areas, canteen, and effluents/pollution load from these activities. Examine whether existing roads are adequate to take care of the additional load of mineral and their impacts.
- (xviii) Examine the number and efficiency of mobile/static water sprinkling system along the main mineral transportation road within the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality.
- (xix) Impacts of CHP, if any on air and water quality. A flow chart of water use and whether the unit can be made a zero-discharge unit.
- (xx) Conceptual Final Mine Closure Plan along with the fund requirement for the detailed activities proposed there under. Impacts of change in land use for mining operations and whether the land can be restored for agricultural use post mining.

Table 1 Stage-wise Cumulative Plantation

S.N	YEAR*	Green Belt		External Dump		Backfilled Area		Others (Undisturbed Area / etc)		TOTAL	
		Area (ha)	No. of trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees
1.	1 st year										
2.	3 rd year										
3.	5 th year										
4.	10 th yr										
5.	15 th yr										
6.	20 th yr										
7.	25 th yr										
8.	30 th yr										
9.	34 th year (end of mine life)										
10	34-37 th Year (Post-mining)										

*As a representative example

- (xxi) Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be furnished.
- (xxii) Details of cost of EMP (capital and recurring) in the project cost and for final mine closure plan. The specific costs (capital and recurring) of each pollution control/mitigative measures proposed in the project until end of mine life and a statement that this is included in the project cost.
- (xxiii) Integrating in the Env. Management Plan with measures for minimising use of natural resources – water, land, energy, raw materials/mineral, etc.
- (xxiv) R&R: Detailed project specific R&R Plan with data on the existing socio-economic status (including tribals, SC/ST) of the population in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan.
- (xxv) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project.
- (xxvi) Public Hearing should cover the details as specified in the EIA Notification 2006, and include notices issued in the newspaper, proceedings/minutes of public hearing, the points raised by the general public and commitments by the proponent made should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.
- (xxvii) Status of any litigations/ court cases filed/pending in any Court/Tribunal on the project should be furnished.
- (xxxvi) Submission of sample test analysis of: Characteristics of coal - this includes grade of coal and other characteristics – ash, S and heavy metals including levels of Hg, As, Pb, Cr etc.
- (xxxviii) Copy of clearances/approvals – such as Forestry clearances, Mining Plan Approval, NOC from Flood and Irrigation Dept. (if req.), etc.

(A) Forestry Clearance

Total ML / Project Area (ha)	Total Forest Land (ha)	Date of FC	Extent of forest land	Balance area for which FC is yet to be obtained	Status of appl. for diversion of forestland
		If more than one, provide details of each FC			

(B) Mining Plan / Project Approval: Date of Approval of Mining Plan/Project Approval: Copy of Letter of Approval of Mining Plan/Project Approval

(xxxviii) Corporate Environment Responsibility:

- a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
- b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.

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- c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
- d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

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Photos of FL-1 (106.3042 ha)





Note cam lite
Address : NH 930P, Yellandu,
Bhadradi Kothagudem, 507124,
TG, India
Latitude : 17.5875° N
Longitude : 80.3020° E
Altitude : 204.15 meter
Date : 03/24/2023 03:48 PM
Accuracy : 0.77 meter
Note : Captured by NoteCam



Note cam lite
Address : NH 930P, Yellandu,
Bhadradi Kothagudem, 507124,
TG, India
Latitude : 17.5875° N
Longitude : 80.3021° E
Altitude : 204.1 meter
Date : 03/24/2023 03:48 PM
Accuracy : 1.33 meter
Note : Captured by NoteCam

Photos of FL-2 (45.5477 ha)

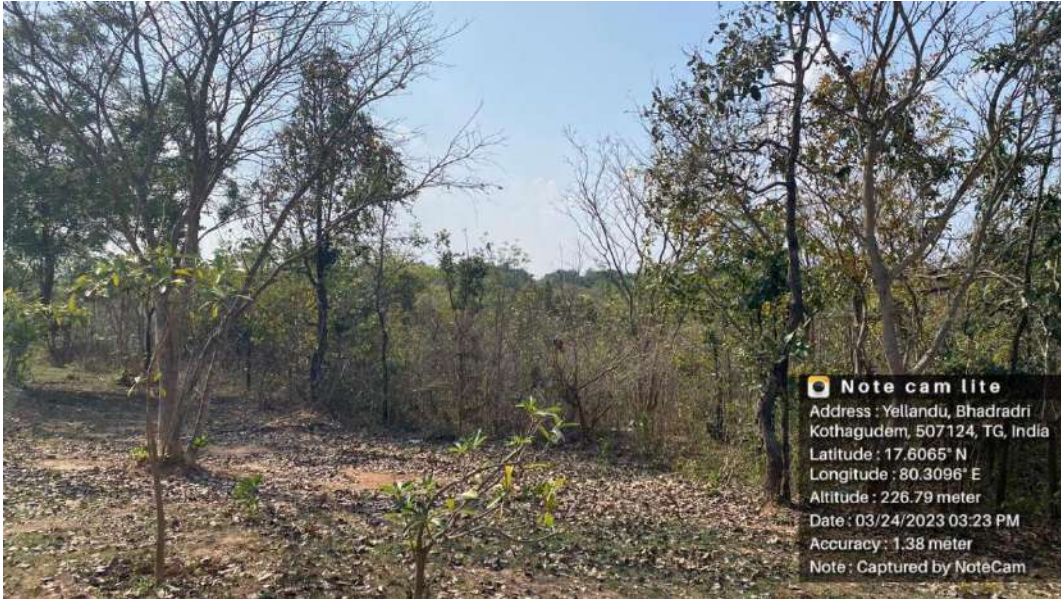




Note cam lite
Address : Yellandu, Bhadradi
Kothagudem, 507124, TG, India
Latitude : 17.6077° N
Longitude : 80.3095° E
Altitude : 228.74 meter
Date : 03/24/2023 03:20 PM
Accuracy : 1.22 meter
Note : Captured by NoteCam



Note cam lite
Address : Yellandu, Bhadradi
Kothagudem, 507124, TG, India
Latitude : 17.6065° N
Longitude : 80.3096° E
Altitude : 227.43 meter
Date : 03/24/2023 03:23 PM
Accuracy : 1.28 meter
Note : Captured by NoteCam



Note cam lite
Address : Yellandu, Bhadradi
Kothagudem, 507124, TG, India
Latitude : 17.6065° N
Longitude : 80.3096° E
Altitude : 226.79 meter
Date : 03/24/2023 03:23 PM
Accuracy : 1.38 meter
Note : Captured by NoteCam



Note cam lite
Address : Old Yellandu, Yellandu,
507124, TG, India
Latitude : 17.5974° N
Longitude : 80.3119° E
Altitude : 226.43 meter
Date : 03/24/2023 03:36 PM
Accuracy : 1.06 meter
Note : Captured by NoteCam

JK-05 Opencast mine, Yellandu







NFL (Old OB dump) in Karepally Range, Khammam





Note cam lite
Address : Singareni, Khammam,
507122, TG, India
Latitude : 17.5418° N
Longitude : 80.3369° E
Altitude : 209.03 meter
Date : 03/24/2023 04:39 PM
Accuracy : 1.37 meter
Note : Captured by NoteCam



Note cam lite
Address : Singareni, Khammam,
507122, TG, India
Latitude : 17.5387° N
Longitude : 80.3391° E
Altitude : 215.49 meter
Date : 03/24/2023 04:44 PM
Accuracy : 1.42 meter
Note : Captured by NoteCam



DFL land in Mahabubabad District











Note cam lite
Address : NH 930P, Tekulapalle,
Bhadradri Kothagudem, 507124,
TG, India
Latitude : 17.9383° N
Longitude : 80.2362° E
Altitude : 348.53 meter
Date : 03/25/2023 01:29 PM
Accuracy : 1.34 meter
Note : Captured by NoteCam