

FORM-A

Form for seeking prior approval under Section 2 of the proposal by the State Governments and other authorities.

PART-I

(To be filled up by user agency)

1. Project Details

i) *Short narrative of the proposal and project/scheme for which the forest land is required.*

Introduction:

The Talcher coalfield contains the largest coal resources of all the Gondwana coalfields in India with a total reserve of 42.842 billion tonnes i.e., 16.25% of the total coal resources of 263.593 billion tonnes upto a depth of 1200m in the Country as on 1st April 2008 (As per Coal Resource Scenario of India of Coal Wing, Geological Survey of India). The occurrence of thick coal seams under low cover of overburden and low gradient (dip) of the strata attracted serious attention of all concerned. Ministry of Coal, Government of India has identified 24 blocks in this coalfield for mining of coal by non-CIL entrepreneurs/companies.

TATA Sponge Iron Limited (TSIL) was incorporated in 1982 as a joint venture of TATA Steel and the Industrial Promotion & Investment Corporation of Orissa Limited (IPICOL). It was set up for the production of sponge iron based on the TISCO Direct Reduction (TDR) technology, which was developed in-house at TATA Steel. Later during 1991, TATA Steel acquired IPICOL's stake and at present TSIL is a sister company of TATA Steel.

TSIL plant is located at Bileipada near Joda in the Keonjhar District of Orissa. The plant was initially designed for a production capacity of 90,000 TPA with one kiln , which was subsequently enhanced to 120,000 TPA through various modifications during 1990-91. Later due to the growing demand of quality sponge iron, TSIL enhanced its capacity to 2,40,000 TPA by adding another kiln of equivalent capacity in 1998-99. In December, 2001 TSIL commissioned a 7.5 MW captive power plant to produce electricity from the waste heat of exit gases of its kiln No.2. The third kiln with a capacity of 150,000 TPA was further commissioned in March 2006 and the present installed capacity of the plant is 390,000 tonnes per annum. Installation of 18.5 MW power plant to utilize waste heat from kiln-1 and kiln-3 is also completed.

Considering the high cost of non-coking coal TSIL was exploring various alternatives including acquisition of a coal block for ensuring long term supplies of this vital raw material.

Allocation of Coal Block:

Radhikapur East (Including Utkal-F) coal block was allotted by Ministry of Coal, Govt. of India on 7th February 2006 for working by M/s TATA Sponge Iron Ltd., as Leader, M/s SCAW Industries Ltd and M/s SPS Sponge Iron Ltd as associates. The purpose is to meet the coal requirements for their existing and proposed sponge iron and power plants. Copy of the coal block allocation letter no.13016/33/2005-CA-1 dated 07.02.2006 is enclosed at **Annexure-I.**

The capacity (in million tonnes per year) of end use projects i.e., sponge iron plants, of the Leader and Associate Companies are as under:

Particulars	TSIL	SCAW	SPS
Existing Kilns.	0.39	0.10	0.28
Proposed Kilns.	0.45	0.60	0.21
Total	0.84	0.70	0.49
Location of Sponge Iron Plant.	Bileipada, P.O. Joda, Keonjhar Dist., Orissa	Gundichapada, Dhenkanal Dist., Orissa	Badmal, Jharsguda Dist., Orissa
Nearest Railway siding to the plant.	Murga-Mahadev Siding of SE Railways.	Sadashivpur Rly. Stn. of East Coast Railways.	Badmal Rly. Stn. of East Coast Railways

The annual requirement of coal for the Leader and Associates at overall satisfaction level of 68% assessed by Ministry of Coal, Govt. of India is estimated at 5.00 million tonnes. The share of the Leader and its Associates in coal resources and coal production of Radhikapur East (Including Utkal-F) coal block are as follows:

Name of the Allottee	Share of Leader and Associates.	
	% Share of Coal Resources.	Share of Coal Production (million tonnes per year)
M/s TATA Sponge Iron Ltd. (Leader)	45%	2.25
M/s SCAW Industries Ltd. (Associate)	36%	1.80
M/s SPS Sponge Iron Ltd. (Associate)	19%	0.95
Total	100 %	5.00

As per the terms of allocation letter, the Mining Lease shall be obtained in the name of M/s TATA Sponge Iron Ltd (Leader) and the entire investment for coal block shall also be made by the Leader.

M/s TATA Sponge Iron Limited applied for Mining Lease (ML) over Radhikapur East (Including Utkal-F) Coal Block covering an area of 10.30 Sq.Km (1029.925 Ha) on 27th September 2006 to the District Collector, Angul. After submission of technical enquiry/site inspection reports by Dy. Director of Mines (Talcher), Tahsildar (Chhendipada)

and DFO (Angul), District Collector, Angul forwarded the Mining Lease application with his recommendation to Director of Mines and Dept. of Steel & Mines and Govt. of Orissa in March 2007. Director of Mines recommended for grant of Mining Lease in April, 08 and further approved boundary demarcation in February 2009. Collector, Angul forwarded the application to Department of Steel & Mines, Govt. of Orissa in September, 2009 for further action with respect to grant of Mining Lease. The application is now under consideration of the State Govt for forwarding to the Ministry of Coal, Govt of India for grant of previous approval.

Location and Topography of the Area:

Radhikapur East (including Utkal - F) coal block is situated in the south central part of Talcher Coalfield in Angul district, Orissa. The block forms a part of Survey of India Toposheet No.73 D/13 (R.F.1:50,000) between following coordinates:

Latitudes (N) :20°57'12" - 20°59'39"
Longitudes (E):84°53'25" - 84°55'49"

Topographically, the coal bearing area falls along the southern side of Singhada Jhor. The area represents a flat to mildly undulating topography. The area is predominantly covered by soil/sandstone and gently sloping towards west to Nuabanda Nala and also towards north to Singhada Jhor. Minimum and maximum surface elevation varies from 143.54m to 190.73m.

Accessibility:

Radhikapur East (including Utkal-F) coal block is well connected to district headquarter Angul located at a distance of about 22Km by Angul-Chhendipada State Highway. Kutcha road connects the block to Rajjharan on Angul-Chhendipada State Highway. Jharpada-Kosala road passes through the central part of the block connecting the Angul-Chhendipada State Highway with the Angul-Sambalpur National Highway (NH-55). The nearest rail head Angul on Sambalpur-Bhubaneswar broad gauge loop of East Coast Railways is about 28 km from the eastern part of the block. .

Exploration and Reserve Details:

CMPDIL and MECL have carried out exploratory work in Radhikapur East (Including Utkal-F) Coal Block. The Geological Report of the coal block based on data generated from 59 boreholes drilled over 10.30 Sq.km has estimated a total geological reserve of 183.43 million tonnes (Proved & Indicated). The geological reserves in 9 workable coal seams amenable for extraction by opencast method i.e., XI, X, IX, VIII, VIIB, IVB, IIIE, IIID and IIIA is estimated at 172.08 million tonnes (Proved & Indicated).. As per the approved mining plan vide letter no: **Ni.13016/42/2007-CA-I dated 7th April, 2008, attached as Annexure-II**, the

estimated extractable reserves in this coal block is 105.24 Million tonne. The quality of coal seams varies from 'F' to 'G' Grade with useful heat value ranging from 1300 to 3360 K.Cal/Kg and average ash content of about 43-50%.

Further, 22 Bore Holes were drilled as per advice of Ministry of Coal, Govt. of India vide letter No: Ni.13016/42/2007-CA-I dated 7th April, 2008 for evaluation of mineability of lower seams, etc. The findings have been submitted to Central Mine Planning & Design Institute Ltd (CMPDI), Ministry of Coal, Govt. of India. Acknowledgement of receipt is herewith attached as **Annexure-III**

Coal Project Proposal:

The present proposal is to extract coal from 9 workable coal seams in this coal block by Opencast Mining method. As per the approved Mine Plan, the estimated extractable coal reserves are about 105.24 million tonnes. The Project is envisaged for a life of 23 years with a production capacity of 5 mtpa

The coal proposed to be mined from the coal block is of poor quality (mainly "G" Grade) with high ash content (43-50%). The run of mine (ROM) coal is proposed to be beneficiated in Coal Washery to be established within mine lease area. Two product coal Washery is planned to meet the clean coal requirements (with <28% Ash) of Sponge Iron Plants for Direct Reduced Iron (DRI) and the rejects (with >60% Ash) from the Washery would be used for power generation in the respective plants of Leader and Associate companies. The average clean coal yield expected from the Washery is about 35-40% of ROM Coal.

Mode of Coal Transportation:

Initially, it was proposed to transport coal by road to the nearest railway siding near Jharpada/Kerajang stations on Angul-Sambalpur Main Line of East Coast Railways. Subsequently, IDCO, ODISHA proposed to develop a common railway corridor for evacuation of coal from all the allotted adjoining Captive coal blocks. The proposed Common Corridor passes close to the Block boundary.

Land details:

Radhikapur East (Including Utkal-F) coal block area is spread over 1029.925 Ha in the villages Kosala, Gopinathpur Jungle, Nandichhod (Gopiballavapur), Jhintipal Jungle and Jhintipal Village under Chhendipada Tahasil of Angul District. The coal block is bounded by Singhada Jhor in the North, by Utkal-E Block in the East, by In-crop of bottom-most workable seams i.e., IIB/IIA/IIIA Seams in the South and Naubanda Nala/ Radhikapur West Block in the West.

In the allotted coal block area of 1029.925 Ha, the area for which the mining lease has been applied is 1029.925 Ha, out of which 230.0899 Ha is identified as Revenue Forest land in scattered & isolated patches . This forest land is required for the proposed opencast mining project. Applicant has proposed for diversion of 215.919 Ha (excluding Safety Zone Area of 14.1709 Ha) of forest land within mining lease area to be diverted for mining purpose.

The existing land use details in the applied ML area are given below:

Village	Forest (Ha) (Gramya Jungle)	Non-Forest Govt. Land (Ha)	Private Land (Ha)	Total(Ha)
Kosala	3.0315	23.5635	21.3375	47.9325
Nandichhod	40.9221	5.9823	102.6287	149.5331
Gopinathpur Jungle	70.9505	42.107	160.3190	273.3765
Jhintipal Jungle	67.4008	22.1995	60.7410	150.3413
Jhintipal Village	47.7850	47.3151	313.6415	408.7416
Total Area	230.0899	141.1674	658.6677	1029.9250
Safety Zone Area	14.1709	17.795	24.1447	56.1106
Forest area proposed for diversion : (230.0899 – 14.1709) = 215.919Ha				

Overburden Management:

Initially, the topsoil and overburden (OB) existing above coal seams have to be removed to facilitate extraction of coal seams. The topsoil is proposed to be stored separately within mine lease area for subsequent use in reclamation. The total overburden generated during initial 6-years will have to be located in two surface dumps located on the southern side of the property. The area of one of these will be 90 Ha while that of the other will be 10 Ha totaling to 100 Ha. For OB dumps two patches have been selected because of non-existence of continuous non-forest & non-coal bearing patch within the lease area. The OB generated, 7th year onwards of mining operations will be partially backfilled in the excavated area and partially kept in the temporary surface dump over the northern portion of the unexcavated quarry area up to 10th year. The concurrent backfilling with mining will be possible only after 10th year and with the advancement of mining benches. The temporary OB dump located over the northern portion of the block will be rehandled and accommodated over the excavated and decoaled area. The mine is expected to be worked out by the end of 23rd year .

After the 23rd year, the two surface dumps located on the southern side of the block as also the crown dumps lying over the backfilled area will be rehandled during the Post Mine Closure Plan period (24th to 26th year) and backfilled in to the void to form a small water body of 100 Ha having 30m depth.

The user Agency has now proposed for diversion of 215.919 Ha of Revenue Forest (Gramya Jungle) in Chhendipada Tahsil of Angul District for non-forestry activity (i.e coal mining) under Section-2 of Forest Conservation Act, 1980.

ii) Map showing the required forest land, boundary of adjoining forest on a 1:50,000 scale map.

Location Map (Toposheet No. 73 - D/13) showing Radhikapur East (Including Utkal-F) Coal block duly authenticated is enclosed as **Plate no-I**.

iii) Total Cost of the project:

Sl. No.	Items	Rs. In Crores
A	Project Cost :	
	Cost of Infrastructure	276.25
	Cost of Machineries	496.70
	Environment Management	5.92
	R & R Cost	140.68
	Development and Others cost	36.65
	Grand Total	956.20

The total cost of the project is 956.20 Crore which excludes other statutory costs like cost of Compensatory Afforestation, NPV, Safety Zone, One & Half Safety Zone, cost of Wild Life Management, Royalty of trees etc.

iv) Justification for locating the project in the forest area:

Captive coal mining proposals are very much site specific and based on allocation order from Ministry of Coal, Govt. of India. The forest land over 230.0899 Ha is required for mining purpose within applied lease area over 1029.925 Ha. This forest area is essentially needed for the purpose of coal mining as the coal deposit is lying within the said forest land. Besides the said forest land forms discontinuous patches and no other coal bearing non-forest land free from forest land in continuous patches is available for scientific mining within this project.

Further, coal is not available within the surrounding nearby non-forest land in continuous patches free from forest land. The coal bearing area / land beyond Radhikapur East (Including Utkal-F) Coal Block is not available to M/s TATA Sponge Iron Ltd., as the same have been allotted as captive coal blocks to other companies.

Hence, without diverting the forest area which are not in continuous patches within the coal block, the non-forest area cannot be used for extraction of coal. To this effect, a Certificate

from Deputy Director of Mines, Talcher, Department of Steel & Mines, Govt. of Orissa, is obtained and enclosed as **Annexure-IV**.

As per the Mining plan approved by Ministry of Coal, Govt. of India it has been highlighted that a portion of allocated block has not so far been explored (the page 13-33 page of approved mine plan). Therefore in the proposed diversion proposal the said area of 176.666 Ha has been shown for future exploration which also includes 26.289 Ha of Revenue forest. The Village Road connects village Putagaria to Kosala via village Jhintipal over a length of 12.1 km. A part of the road length 4.45 km passes through the said Project area, Since presence of the road within the coal bearing area will not be safe for human passage, the user agency shall divert the road from point 5.5 km to 8.5 km from junction point of Putagaria. The said diverted road will ultimately connect the village road at km 8.5 km near bridge of Singhada jhor facilitating the villagers as an alternative to reach their destination.

It is further to be added that the diversion road will be made over the safety zone on west and north side of the lease boundary.

In the safety zone area few interspersed revenue forest land exists, which will be taken care of by developing green belt.

v) Cost-Benefit Analysis:

Enclosed as **Annexure-V**

vi) Employment likely to be generated:

This proposal will generate employment for about 400 persons directly. In addition 5000 people will be benefited indirectly.

2. Purpose-wise break-up of the total land required:

The Radhikapur East (Including Utkal-F) Coal Block area is 1029.925 Ha. This includes 230.0899 Ha of revenue forest land, 141.1674 Ha of non-forest govt. land and 658.6677 Ha of tenancy land. The entire forest land of 230.0899 Ha is in discontinuous patches scattered within the applied mine lease boundary and is required for utilization under Mining and related activities.

Installation of Coal Washery within mine lease area is not only a technical necessity as the coal available in Radhikapur East (Including Utkal-F) coal block is of high ash content which goes up to 43-50% but also a directive of MoEF to transport as much possible by conveyor belt.. The ash content has to be brought down to a level of 26-28% by coal washing/beneficiation for subsequent use in sponge iron plants for Direct Reduced Iron (DRI) production.

The purpose-wise break-up of the total leasehold area along with the Forest Land required for diversion is furnished in the table below:

Sl. No.	Purpose	Forest Land	Non Forest Govt. land	Private land	Total
		(Gramya Jungle) in ha			
	1	2	3	4	5
1	Mining/Excavation	175.0250	38.4820	288.4930	502.00
2	Magazine with Safety Zone	1.4549	8.8580	7.6447	17.9576
3	Initial OB Dumps	0.0000	5.9800	94.0200	100.00
4	Coal washery, Coal Stack Yard, Settling Pond, Washery pond	0.0000	0.3500	27.0400	27.3900
5	Temp. labour Shed, Temp. Workshop, Temp. Contractor site,etc	0	2.1500	17.4300	19.5800
6	Top soil Dump	4.3900	0.2300	11.3800	16.0000
7	Area set aside for future exploration	26.2891	40.0370	110.3400	176.6661
8	Green belt(Indirectly affected)	8.7600	28.5000	76.0630	113.3230
	Subtotal(I)	215.9190	124.5870	632.4107	972.9167
	Safety zone				
9	a) 7.5 m along the lease area	2.4700	0.5200	3.3900	6.3800
	b) 10m along the Road	0.0000	0.4400	4.0000	4.4400
	c) 50 m along the nala	11.7009	15.6200	18.8670	46.1879
	Sub Total(II)	14.1709	16.5800	26.2570	57.0079
	Grand Total	230.0899	141.1670	658.6677	1029.9246

The mining lease area does not contain any reserve forest land.

3. Details of displacement of people due to the project, if any.

3. Details of displacement of people due to the project, if any.

Minimal displacement of people is envisaged as required for mining operations to extract coal seams within Radhikapur East (Including Utkal-F) coal block. R & R plan prepared by the user agency has been submitted to District Administration, copy of which has been enclosed to this proposal.

i) No. of families: 867 (Nandichhod, Gopinathpur Jungle & Jhintipal Village)

Name of the displaced village	No. of Original families	Total No. of families (original + extended)
Jhintipal	341	640
Nandichhod	55	80
Gopinathpur Jungle	70	147
TOTAL	466	867

ii) **Scheduled Caste and Scheduled Tribe persons:** The total population going to be displaced due to the project is about 2547. The demography of the area is as below:

- * Scheduled Tribe (ST) : 16.9%
- * Scheduled Caste (SC): 25.2%
- * OBC : 47.2%
- * General : 10.7%

iii) Rehabilitation & Resettlement Plan

Enclosed as **Annexure-VI**.

4. Whether clearance under Environment (Protection) Act, 1986 is required?

(Yes)

The coal project covering a mining lease area of 1029.925 Ha envisages operation of an opencast coal mine and coal washery each with a capacity of 5.00 million _ones per year.

TOR from Ministry of Environment & Forests, Govt. of India has been issued on 16th November, 2007 and attached herewith as **Annexure-VII**.

Govt. of Odisha has issued the Consent to Establish (NOC) vide their letter No-654/Ind-II-NOC-4841 Dt-18-01-2010 and attached as **Annexure-VIII**.

The EIA & EMP was submitted at Ministry of Environment & Forest, Govt. of India in December, 2009. Subsequently, presentations were made on 26th October, 2010 & 18th April, 2011 for consideration of Environment Clearance. Accordingly MOEF, Govt of India

has taken a view vide letter no:J-11015/1073/2007-IA.II(M) dated 19th may, 2011 to consider grant of Environmental Clearance subject to obtaining Stage-I Forest Clearance, etc attached as **Annexure-IX**

5. Undertaking to bear the cost of raising and maintenance of compensatory afforestation and/or penal compensatory afforestation.

Submitted as **Annexure-X**.

6. Details of certificates/documents enclosed herewith:

List of Annexures:

Sl. No	Description	Annexure
1.	Copy of letter no. 13016/33/2005-CA-1, dated 07.02.2006 from Ministry of Coal, Govt. of India regarding allocation of Radhikapur East Coal Block in favor of TATA Sponge Iron Ltd. (As Leader) and M/s SCAW Industries Ltd and M/s SPS Sponge Iron Ltd. (As Associates).	I
2.	Copy of Approved Mining Plan with Approval Letter from MoC.	II
3	Copy of receipt of Report to CMPDI, Ministry of Coal, Govt. of India	III
4	Copy of Certificate from Deputy Director of Mines, Talcher regarding no alternative land for the block available for mining activities .	IV
5	Cost-Benefit analysis.	V
6	Rehabilitation and Resettlement Plan.	VI
7	Terms of Reference (TOR), MoEF, Govt. of India	VII
8	Consent to Establish issued by Govt. of Odisha .	VIII
9	Copy of Letter from MOEF regarding Environmental Clearance / Executive summary of EIA / EMP.	IX
10	Undertaking for raising compensatory afforestation, regeneration of safety zone etc..	X
11	Land Schedule of Mining Lease Area with the details of DLC land certified by concerned Tahsildar.	XI
12	Copy of Aam Sabha Resolution.	XII
13	Copy of concerned Collector's Certificate & Grama Sabha Resolutions complying Forest Rights Act-2006.	XIII
14	Copy of species wise & girth/class wise enumeration list & abstract of Trees standing in the forest area	XIV
15	Copy of Suitability Certificate with details of Non-forest Govt. Land for Compensatory Afforestation identified in Kuajhari, kandhal, Satparidia, Badabahal, Khandabar, Nuasusab , Dalimura, Bridabanpur, Nuagaragadabahal villages under Kishorenagar Tahsil of Angul District by DFO Athamallik duly authenticated by Tahsildar, Kishorenagar	XV
16	Copy of CA Scheme	XVI
17	Copy of Phased Reclamation Plan	XVII
18	Copy of ML Boundary description authenticated by DDM, Talcher	XVIII
19	Copy of Coordinates of Pillars along ML Boundary	XIX
20	Copy of Memorandum of Association and Articles of Association.	XX
21	Power of Attorney to sign documents for TSIL.	XXI
22	Copy of 53 rd Water allocation Committee proceedings on allocation of water.	XXII

List of Plates:

Sl. No.	Details	Scale	Reference
1.	Location Map (Toposheet No. 73 – D/13) showing Radhikapur East (Including Utkal-F) Coal block and all other adjacent coal blocks of this area duly authenticated by the Deputy Director Mines, Talcher Circle.	1: 50,000 RF	Plate – I
2.	Lease Plan of Radhikapur East (Including Utkal-F) Coal Block.	1: 4000 RF	Plate – II
3.	Lease area of Radhikapur East(Including Utkal-F) Coal Block showing forest land and ML Boundary duly authenticated by DDM Talcher, Tahsildar Chhendipada & DFO Angul	1:4000	Plate – III
4	Existing Land Use Map of Radhikapur East (Including Utkal-F) Coal Block.	1: 4000 RF	Plate –IV
5.	Proposed Land Use Map of Radhikapur East (Including Utkal-F) Coal Block.	1: 4000 RF	Plate – V
6	Safety Zone Map of Radhikapur East (Including Utkal-F) Coal Block.	1: 4000 RF	Plate – VI
7	Geological Plan of Radhikapur East (including Utkal-F) Coal Block.	1: 5000 RF	Plate – VII
8	Phased Reclamation Map of Radhikapur East (Including Utkal-F) Coal Block.	1: 4000 RF	Plate-VIII
9	Method of Reclamation	Not to Scale	Plate-IX
10	Map showing Pillar Coordinates along the ML Boundary.	1:50,000	Plate-X
11	Map showing Sample Plots for tree enumeration covering 40 Ha in ML area.	1:4000 RF	Plate-XI
12	Maps (9 nos.) showing non forest Govt land in Athamallik Division suitable for Compensatory Afforestation duly certified by DFO, Athamallik & Tahsildar, Kishorenagar.	16"= 1 Mile	Plate-XII

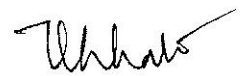
State SL No.-278/08
Dt.20/10/2008

Applicant


Divisional Forest Officer
Angul Division

Place: Angul
Date :

For TATA Sponge Iron Limited


Ujjwal Chatterjee
Chief Operating Officer (Coal Project)
Chief Operating Officer (Coal Project)
TATA SPONGE IRON LIMITED