



## State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O.+P.S-Dhurwa, Ranchi, Jharkhand-834004

E-mail: msseiaa.jhk@gmail.com/chr-seiaajhr@gov.in

website: www.jseiaa.org

Letter No : EC/SEIAA/2022-23/2664/2022/

Ranchi, Date :

**To: Shri Bipin Kumar Giri,  
Chief General Manager (Mines),  
Gua Ore Mines, Bokaro Steel Plant,  
M/s Steel Authority of India Limited,  
District : West Singhbhum, Pin Code : 833213(Jharkhand).**

### Amendment

**Sub:** Amendment of Environmental Clearance for the project “**Topailore Iron Ore Mining Project of Gua Ore Mines of M/s Steel Authority of India Ltd. at Village : Topailore, Tehsil. : Noamundi, Distt. : West Singhbhum, Jharkhand (14.15 Ha)**”, (Proposal No. SIA/JH/MIN/293216/2022) - regarding.

**Ref:** Your online application dated : 21.10.2022.

Sir,

1. This is in continuation of Environmental Clearance (EC) issued by the State Level Environment Impact Assessment Authority (SEIAA), Jharkhand vide letter no.- **EC/SEIAA/2015-16/694/2015/1291**, Ranchi, Date : **17.08.2015** and further reference to your online application no. : **SIA/JH/MIN/293216/2022** requesting for amendment of EC with regard to the following:-

- a) Mining / Excavation of fines from Topailore lease @ 0.6 MTPA for dispatch to SAIL's integrated steel plants for captive consumption and selling in open market as per the requirement keeping total production within the approved EC limit of 0.6 MTPA.
- b) Transportation of excavated fines from the Topailore Mining Lease by using private road (SAIL owned) to Gua Public Railway Siding covering a distance of about 3.5 km for further dispatch by Rail and transportation of excavated fines by using private road (SAIL owned) to SAIL Gua private railway siding covering a distance of 1.5 km for further dispatch by Rail as per the requirement.

2. The State Level Environment Impact Assessment Authority (SEIAA), Jharkhand has accorded the EC to the said project vide office letter no. : **EC/SEIAA/2015-16/694/2015/1291**, Ranchi, Date : **17.08.2015** for “**Topailore Iron Ore Mining Project of Gua Ore Mines of M/s Steel Authority of India Ltd. at Village : Topailore, Tehsil. : Noamundi, Distt. : West Singhbhum, Jharkhand (14.15 Ha)**”.

3. Your request has been considered by the State Level Expert Appraisal Committee (SEAC), Jharkhand in its 99<sup>th</sup> meeting held on 02<sup>nd</sup>, 03<sup>rd</sup>, 04<sup>th</sup> & 05<sup>th</sup> November, 2022, based on the information furnished/provided and discussion held, the State Level Expert Appraisal Committee, (SEAC) recommended to issue amendment of earlier EC issued vide letter no. : **EC/SEIAA/2015-16/694/2015/1291**, Ranchi, Date : 17.08.2015, as the following:-

64

64  
1

64

**“Project Category:** Application for Amendment in Environment Clearance for Iron Ore Production: 300000 Cu.M. / year i.e. 600000 TPA (Project category B).

This is a existing project which has been taken for appraisal on 02.11.2022 under clause 7 (ii) of the EIA notification, 2006.

**Project Summary:**

Topailore Iron Ore Mine, covering an area of 14.15 ha located in Gua Village of Noamundi Tehsil, Dist: West Singhbhum (Jharkhand) is a part of Gua Ore Mines under Bokaro Steel Plant of SAIL. There are total four mining leases under Gua Ore Mines viz Durgaburu Lease (for Iron Ore), Jhillingburi-I Lease (for Iron Ore & Manganese Ore), Jhillingburi-II Lease (Iron Ore & Manganese Ore) and the Topailore Lease (for Iron ore).

The Topailore mining lease was granted for a period of 30 years from 09.03.1970 to 08.03.2000. Subsequent to promulgation of MMDR Amendment Act, 2015 and Mineral (Mining by Govt. Company) Rules 2015, Govt. of Jharkhand extended the lease period of Topailore mining lease under MMGC Rule 2015 till 08.03.2040 vide letter no. Kh. Bhu. (Chai)-04/05/1748 dated 23.10.2019 and lease deed executed on 17.01.2020.

The lease area forms part of Survey of India Toposheet bearing no. 73F/8 (F45H8) and is bounded by latitudes from 22°12'35.788"N to 22°12'45.184"N and from Longitudes 85°22'0.336"E to 85°22'19.726"E. The entire mining lease falls under Mining Zone as per the MoEFCC approved the Management Plan for Sustainable Mining (MPSM) of Saranda and Chaibasa Forest Divisions.

There is no geological reserve in the Topailore Mining Lease, but part of the Iron Ore Fines Dump (6.6 MT) of Gua Ore Mines is falling under Topailore Mining lease. SAIL had initially obtained EC for Topailore Iron Ore Mining Project from the State Level Environment Impact Assessment Agency (SEIAA), Jharkhand vide letter no. EC/SEIAA/2015-16/694/2015/1291 dated 17/08/2015 for excavation of iron ore fines @ 0.6 million tonnes per annum (MTPA) from the fines dump & processing through proposed Beneficiation and Palletisation plants to be set up in Gua Ore Mines for processing of iron ore from the both Duargaburu & Topailore Iron Ore Mining Leases. However, mining operations in the Topailore Mining Lease could not be started due to non-availability of Stage-II forest clearance and delay in installation of Beneficiation and Palletisation plants at Gua Ore Mines. Subsequent to receipt of permission for sale of iron ore from SAIL Captive Mines in open market by Ministry of Mines, GoI since Sept., 2019, the EC of Topailore ML was amended by MoEF & CC vide Letter No. J-11015/272/2011-IA.II (M) dtd 19.05.2020 for excavation of iron ore fines @ 0.6 MTPA for selling in open market under para 7(ii) of EIA Notification 2006 by transporting iron ore through internal road to Gua Public Siding and final dispatch by rail.

Off late iron ore demand from SAIL Steel Plants has been increased as Modernization & Expansion Projects of the SAIL Steel Plants has been completed. In order to cater the immediate need of iron ore demand from the SAIL Plants, SAIL is intending to dispatch the iron ore to SAIL Steel Plants from Topailore ML in addition to dispatches against sale in open market from Gua Public Railway Siding / SAIL's Gua Private Railway Siding as per the requirement without involving any change in process / product mix as permitted in EC grant order's dated 17.08.2015 and subsequent amendment dated 19.05.2020. The excavated iron ore fines from the Topailore Mining Lease shall be transported through private roads (SAIL owned) to the Gua Public Railway Siding / SAIL's Gua Private Railway Siding for final dispatch by rail.

GA

2

Stage-II FC for diversion of entire forest land over 14.15 ha granted by Integrated Regional Office, MoEF&CC, Ranchi on 04.10.2019. Forest Land release order has also been issued by GoJ vide letter dated 09.06.2022. Indian Bureau of Mines (IBM), Ranchi has already approved Review of Mining Plan for the Mining Lease for the period from 2022-23 to 2026-27 vide letter No. RAN/WSB/Fe/MP-17/2021-22 dated 22.12.2021 for use of iron ore for both captive as well as sale on open market.

Accordingly, SAIL submitted an application for amendment of EC of Topailore Mining Lease in the prescribed format, online **Form-4** along with addendum to EIA/EMP Report in PARIVESH PORTAL to SEIAA, Jharkhand vide proposal no. SIA/JH/MIN/293216/2022 dated 21.10.2022 & 28.10.2022 for Change in End-use of Mineral without increase in production (0.6 MTPA) under para 7 (ii) of EIA Notification 2006 and amendments thereon. The proposal was placed and deliberated in the 98<sup>th</sup> Meeting of State Level Expert Appraisal Committee, Jharkhand held on 02.11.2022. The amendments sought by the project proponent is as follows:

Plant / Equipment / Facility	Existing, Configuration	Proposed Configuration	Remarks, if any
Production Capacity	0.6 MTPA of Iron ore	0.6 MTPA of Iron ore	No Change
Lease Area	14.15 ha	14.15 ha	No Change
End use of Mineral	Selling in open market.	Captive and selling in open market as per the requirement.	Facilitate early liquidation of mineral and thereby minimize pollution.
Transportation up to Railway Sidings	Through internal roads to Gua Public Siding (3.5 km).	Through internal roads to Gua Public Siding (3.5 km) and SAIL's Gua Private Railway Siding (1.5 km) as per the requirement.	Only through SAIL's internal roads. No public road is involved.
Final Dispatch to end users	By rail from Gua Public Railway Siding.	By rail from Gua Public Railway Siding and SAIL's Gua Private Railway Siding as per the requirement.	Through rail only.

The project proponent submitted that environmental quality covering ambient air, noise and water are being monitored regularly and found that the results are within the prescribed quality standards. Further, project proponent submitted that the proposed change in end of mineral and dispatch the iron ore fines through Gua Public Railway Siding / SAIL's Gua Private Railway Siding will help in early liquidation of the iron ore and finally eliminate environmental issues associated with the storage of the fines. The proposed environmental management measures to control dust emissions and surface runoff control measures will improve and maintain the environmental quality within the prescribed environmental standards. It is also submitted that transporting the iron ore from the Topailore Mining Lease to Gua Public Siding and SAIL's Gua Private Railway Siding is only through SAIL's internal roads and there is no involvement of public roads.

GA

54

1

**Project and Location Details:**

Sl	Parameter		Details
1	Project Name	:	Topailore Iron Ore Mining Project of Gua Ore Mines of SAIL Bokaro Steel Plant (Lease Area-14.15 ha)
2	Lessee:	:	Steel Authority of India Limited- Bokaro Steel Plant Gua Ore Mines
3	Lease Address	:	Topailore Iron Ore Mining Project Gua Ore Mines Bokaro Steel Plant Steel Authority of India Limited, P.O-Gua Dist.- West Singhbhum, Jharkhand Pin:833213
4	Lease Area	:	Ha: 14.15 ha
5	Type of Land	:	Total land is in Reserve Forest Land. (Plot/ Khasra no.- Forest Compartment no. G-23 of Ghatkuri Reserve Forest)
6	Project Cost	:	468.3 Lakhs
7	EMP Budget	:	Capital: 175 Lakhs
8	CSR / CER Budget	:	Rs. 440.17 Lakhs (Last 5 years for Gua Ore Mines)
9	New or Expansion	:	Not Applicable. This proposal is for Amendment in Environmental Clearance
10	Mineable Reserves	:	Cu.M.: 3257426 Cu. M.
11	Mine Life	:	10 years (as per the review of mining plan which may vary after detailed exploration within the lease area)
12	Man power	:	The mine shall employ 45 persons. This comprises of 5 office staff, 7 highly skilled workers, 8 skilled workers, 7 semiskilled workers and 18 unskilled workers. On any given day about 31 persons are expected to be on duty.
13	Water Requirement	:	50 KLD
14	Water Source	:	Industrial water and potable water requirement for the mine is estimated to be maximum 50 m3 /day which will be met by drawing water from Karo River.
15	DG Set / power	:	As only diesel powered machinery will be deployed at the mine, no electricity will be required for mining. 1.5 kW electrical power will be required for the mine site office, rest shelters canteen etc. The power will be drawn from the grid through the common facilities for the entire Gua Ore Mines complex.
16	Crusher	:	Not Applicable as no crushing is involved .
17	Nearest Water Body	:	Karo River
18	Nearest Habitation	:	Gua Village
19	Nearest Rail Station	:	Gua Railway Station-2 Km from Topailore Mining ease
20	Nearest Air Port	:	Ranchi Airport- 250 km
21	Nearest Forest	:	Ghatkuri Reserve Forest
22	Road & Highways	:	NH-215: About 22km south of Topailore Mining lease





**CO-ORDINATES**

1	Latitude	From 22°12'35.788"N	To -22°12'44.802"N
2	Longitude	From 85°22'0.336" E	To -85°22'19.726"E

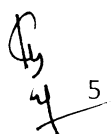
**LAND DETAILS**

1	Total 14.15 ha of Mining Lease area land is Forest Land for which Stage-II Forest Clearance has been obtained vide letter No. 5-JHC092/2009-BHU/3497 dated 4 <sup>th</sup> October, 2019 of MoEF & CC, Regional Office, Bhubaneswar. Based on the compliance report furnished by the State Govt. of Jharkhand vide letter no. Van Bhumi - 75/2007-5054/Va.Pa. dated 03.11.2016 and letter no. Van Bhumi - 75/2007-3840/Va.Pa. dated 03.10.2019.
---	---

**STATUTORY CLEARANCES:**

1	LOI/Lease docs	:	Subsequent to MMDR Amendment Act 2015 and promulgation of MMGC Rules, 2015, Govt. of Jharkhand vide letter dated 23.10.2019 extended lease period up to 08.03.2040 covering an area of 14.15 ha. Lease deed executed between GoJ & SAIL on 17.01.2020.
2	CO	:	The Circle Officer, Noamundi vide letter no. 206, dated 13.06.2022 has mentioned that the plot no. of the project is under the Jurisdiction of State Forest Department and related document not available in this circle office.
3	DFO Wild Life	:	DFO, Saranda Forest Division, Chaibasa (acting WL officer) vide letter dated 08.06.2022 certified that the existing project site is outside Eco Sensitive Zone.
4	DFO Forest Distance	:	DFO, Saranda Forest Division, Chaibasa vide letter dated 08.06.2022 certified that the existing project is notified forest land.
5	Gram Sabha	:	Conducted on 17.02.2011 for 14.15 ha forest land under Forest Rights Act, 2006.
6	Mine Plan Approval	:	Mine is non-operational since 1999. Mining Plan for 0.6 MTPA capacity was approved by IBM on 20.06.2000 for 1 <sup>st</sup> Renewal period. Modification of Approved Mining Plan for the period 2019-20 to 2021-22 was approved by IBM, Ranchi on 26.12.2019. Review of Mining Plan for the period 2022-23 to 2026-27 approved by IBM, Ranchi vide letter no. RAN/WSB/Fe/MP-17/2021-22, dated 22.12.2021.
9	Stage I	:	<b>Stage I</b> clearance granted by MoEF & CC, Govt. of India, Regional Office, Bhubaneswar vide letter no. 5-JHC092/2009-BHU, dated 30.08.2013.
10	Stage II	:	<b>Stage II</b> clearance granted by MoEF & CC, Govt. of India, Regional Office, Bhubaneswar vide letter no. 5-JHC092/2009-BHU/3497, dated 04.10.2019.

GA




11	Previous EC	:	<b>EC granted</b> by SEIAA, Jharkhand vide letter no. EC/SEIAA/2015-16/694/2015/1291, dated 17.08.2015.  <b>Amendment in EC</b> granted by MoEF & CC, Govt. of India vide F.No. J-11015/272/2011-IA.II (M), dated 19.05.2020
12	CTE & CTO	:	i. CTE granted by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-8139793/2020/245, dated 19.06.2020.  ii. CTO granted by JSPCB vide Ref. no. JSPCB/HO/RNC/CTO-8312053/2020/1190, dated 28.07.2020.

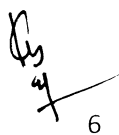
### Working Details

1	Mining Method	:	Open cast Mining with Shovel & dumper combination (Excavator with 2cu.m bucket capacity & dumper of 20-30 t capacity)	
2	Quarry Area	:	5 years– 11.46 ha	Life of Mine – 10 years (as per the review of mining plan which may vary after detailed exploration within the lease area)
3	Waste Generation	:	5 years– Nil	Life of Mine – Not Applicable
4	Stripping Ratio	:	No Waste Generation	
5	Working Days	:	300	
6	Benches: size & No	:	H= 4m, W=12m, bench slope=70 <sup>0</sup> , bench-3 nos. min- 5nos. max.	
7	Elevation of Mine	:	570m AMSL	
8	Ground Level Elevation	:	460m AMSL	
9	Ultimate Working Depth	:	460m AMSL	
10	Water Table	:	400m AMSL	
11	Topography of Mine	:	Hilly and criss-crossed by seasonal and perennial streams.	
12	Explosive Requirement	:	NIL- as no blasting involved	
13	Diesel/Fuel requirement	:	90 KL/year ( 300 Litres/day) for 20 Te carrying capacity (approx)	

### Production Details

Year	Production of Iron Ore (Cum)	Production of Iron Ore(Tonne)	Waste Generation (CuM)	Bench RL in Meters
1 <sup>st</sup>	65210	155199	-	470-478m
2 <sup>nd</sup>	297030	600000	-	478-486m
3 <sup>rd</sup>	297030	600000	-	486-494m
4 <sup>th</sup>	297030	600000	-	494-502m
5 <sup>th</sup>	297030	600000	-	502-510m
<b>Total</b>	<b>1253330</b>	<b>2555199</b>	-	

GFA





## Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area	11.46	11.46	11.46	11.46	11.46
2	Office /Store	0.25	0.63	0.63	0.63	0.63
3	Crusher	-	-	-	-	-
4	Road	0.38	0.38	0.38	0.38	0.38
5	Garland Drain	-	-	-	-	-
6	Safety Zone	-	1.68	1.68	1.68	1.68
7	Settling Tank	-	-	-	-	-
8	Unutilized	2.06	-	-	-	-
	<b>TOTAL</b>	<b>14.15</b>	<b>14.15</b>	<b>14.15</b>	<b>14.15</b>	<b>14.15</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.3 Ha	250 (5 years proposal)
2	Other Reclaimed Area	:	-	-
3	Haul /Approach Road	:	-	-

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

### Solid Waste Management

- Waste Generation will be Nil during the life of mine. Dump area proposed for waste storage is not prerequisite. There is only washout fines are deposited over the period so maximum chances to extract fines from the lease. Hence, solid waste from the lease is expected to be negligible.

### Water Quality Management

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation. Excess water, if any shall be discharged in natural stream after settling of suspended particles in the pit. Pump having required capacity will be installed to lift accumulated rain water from working pit and pumped to the settling tank.
- Garland drain shall be made around working pit and the rain water shall be collected in garland drain and allowed to settle in a small pit for settling suspended particles before allowing discharge to natural drainage system. Check Pits and Retaining walls shall be

GA

47

1

constructed to prevent water flowing into the lease area from outside or from inside the lease area to the outside

- For domestic waste water Septic Tank with Soak Pit shall be provided, discharge from Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

#### **Air Quality Management**

- Dust extractor or wet drilling will not be done because blasting is not essential. All machineries and transport vehicles shall be properly maintained and pollution check will be done once in a year to keep the emissions from machineries and vehicle under control. Records for same to be maintained.
- Water sprinkling will be done on haul road to control emission of dust while transporting minerals and waste. Provision for water spray by tankers on 'kaccha' road shall be done.
- Water sprinkling at loading area shall be done to reduce dust emission and reduction in NOx emission.
- Use of personal protective equipment like dust mask etc shall be put in practice.
- Ambient air pollution monitoring shall be carried out every six months.

#### **Undertaking submitted affirming:**

- a. No ground water is used for domestic purpose and any mining activities or any other use and therefore undertakes that no ground water will be used for domestic purpose and any mining activities or any other use.
- b. The Boundary Pillars of the Topailore mining lease area will be maintained properly.
- c. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- d. The plantation work will be done as per the approved Mining Plan / Review of Mining plan of Topailore mining lease.
- e. Sufficient water spray using water tankers will be done for effective dust suppression within the Topailore mining lease area and on haul roads.
- f. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records will be maintained.
- g. There is no increase in pollution load due to change in transportation route.

#### **During the presentation the following documents were sought:**

- i. Self certified compliance report of previous EC to be submitted.

**The Project Authorities have submitted the above mentioned document."**

**Based on the facts mentioned above the committee recommends that earlier issued Environmental Clearance should be amended to the following extent alongwith rest other terms & conditions mentioned in previous Environmental Clearance letter no. EC/SEIAA/2015-16/694/2015/1291, dated 17.08.2015 shall remain the same:**









- a) Mining / Excavation of fines from Topailore lease @ 0.6 MTPA for dispatch to SAIL's integrated steel plants for captive consumption and selling in open market as per the requirement keeping total production within the approved EC limit of 0.6 MTPA.
- b) Transportation of excavated fines from the Topailore Mining Lease by using private road (SAIL owned) to Gua Public Railway Siding covering a distance of about 3.5 km for further dispatch by Rail and transportation of excavated fines by using private road (SAIL owned) to SAIL Gua private railway siding covering a distance of 1.5 km for further dispatch by Rail as per the requirement.

4. The recommendation of SEAC, Jharkhand in this regard has been examined by the State Level Environment Impact Assessment Authority, Jharkhand in its 99<sup>th</sup> meeting held on 28<sup>th</sup> and 29<sup>th</sup> November, 2022 and decided amendment of Environmental Clearance to the said project proposal as recommended by SEAC alongwith all other terms and conditions of earlier EC letter no. EC/SEIAA/2015-16/694/2015/1291, Ranchi, Date : 17.08.2015 shall remain the same.

5. This issues with the approval of SEIAA, Jharkhand.

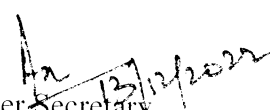
Sd/-  
Member Secretary  
State Level Environment Impact  
Assessment Authority, Jharkhand.

Memo No : EC/SEIAA/2022-23/2664/2022/ 299

Ranchi, Date : 13/12/2022

Copy to:

1. Additional Chief Secretary, Department of Forests, Environment & Climate Change, Govt. of Jharkhand.
2. Deputy Commissioner, District- West Singhbhum, Chaibasa, Jharkhand.
3. Divisional Forest Officer, Saranda Forest Division, Chaibasa, Jharkhand.
4. Divisional Forest Officer, Wildlife Division, Saranda Forest Division, Chaibasa, Jharkhand.
5. Director IA Division, Monitoring Cell, MoEF and Climate Change, Indira Paryavaran Bhavan, Jorbag Road, Aliganj, New Delhi – 110003.
6. Ministry of Environment, Forest and Climate Change, 2<sup>nd</sup> Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi, Jharkhand – 834002.
7. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
8. Secretary, Jharkhand State Expert Appraisal Committee, Ranchi.
9. Website.
10. Guard file.

  
 Member Secretary  
 State Level Environment Impact  
 Assessment Authority, Jharkhand.



