







Karnataka State Pollution Control Board

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25581383/388

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Consent For Establishment - Expand (CFE-EXP)

As per the provisions of
The Water (Prevention & Control of Pollution) Act, 1974
&

The Air (Prevention & Control of Pollution) Act, 1981

To

The Sandur Manganese & Iron Ores Ltd, Sandur Tq & Ballari Dt.

for the Facility located at,

The Sandur Manganese & Iron Ores Ltd,ML No. 2678 (Old No. 2580), Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages,Sandur Tq, Ballari Dt. ,Sandur Tq & Ballari Dt.

Bellary

Consent Order No	PCBID	INW ID	Industry Colour/Scale	Date of Issue
CTE-339450	30740	194794	RED/LARGE	04/09/2023

This Consent is granted for the Products/ Activity/Service name indicated in the annexure along with the terms & conditions attached to this order

Validity: <u>31/12/2033</u>







ISO 9001:2015 & 14001:2015 Certified

e_outwardno63721-- PCB ID-30740 INW ID-194794 CHIEF/SENIOR ENVIRONMENTAL OFFICER Printed through XGN 04/09/2023

(This document contains 11

pages including annexure & excluding additional conditions)

Combined Consent Order No: CTE-339450 **PCB ID:** 30740 **GSC No:** PB0XG0000184794 **Date:** 04/09/2023

To,

The Applicant,

The Sandur Manganese & Iron Ores Ltd

Sir,

Sub: Consent for Expansion of the unit in the Existing premises under the Water (Prevention & Control of Pollution) Act, 1974 & the Air (Prevention & Control of Pollution) Act, 1981

Ref: 1.CFE expansion application submitted by the organization on 12/06/2023 at Regional Office KSPCB

2.Inspection of the project site by Regional

on 17/06/2023

Officer

3. Proceedings of the ECM dated 16/08/2023 held on 11/08/2023

With reference to the above, Karnataka State Pollution Control Board hereby accords **Consent for Expansion** of the unit in the existing premises under the Water (Prevention & Control of Pollution) Act, 1974 & the Air (Prevention & Control of Pollution) Act, 1981 at the location indicated below subject to the terms & conditions indicated in Schedule Annexed.

Location:

Name of the Industry: The Sandur Manganese & Iron Ores Ltd

Address: ML No. 2678 (Old No. 2580), Deogiri, Subbarayanahalli, Ramghad & Kammathuru Villages, Sandur

Tq, Ballari Dt., Sandur Tq & Ballari Dt.

Industrial Area: Not In I.A, Deogiri,

Taluk: Sanduru, District: Bellary

CONDITIONS:

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1. The Consent for Expansion is granted considering the following activities:

Sr	Product Name	CFE Qty	CFO Qty	Applied Qty	Units	Existing/Proposed
1	crushing & screening plant of capacity 0.15	0.1500	0.1500	0.1500	Metric	Proposed
	mtpa				Tonnes/Annum	
2	downhill conveyor system (1.2 km length)	0.000	0.000 - MTS	1.2000	Meters/month	Proposed
3	effluent treatment plant - 1 & 2 (50 kld x 2	0.000	0.000 - KLPD	100.0000	Kilo Litres/Day	Proposed
	no's)					
4	effluent treatment plant - 3 (10 kld)	0.000	0.000 - KLPD	10.0000	Kilo Litres/Day	Proposed
5	Expansion of iron ore production capacity	1.6000	1.6000	2.9000	Million Metric	Proposed
	from 1.6 Million TPA to 4.5 Million TPA				Tons/Annum	
	Ore beneficiation plant with through put	0.000	0.000 - MMTa	7.0000	Million Metric	Proposed
	capacity of 7.0 Million TPA (production				Tons/Annum	
	capacity 4.35 Million TPA)					
7	sewage treatment plant - 200 kld	0.000	0.000 - KLPD	200.0000	Kilo Litres/Day	Proposed

2. This consent for establishment is valid up to 31/12/2033 from the date of issue.

- 3. The applicant shall not undertake further expansion/diversification without the prior consent of the Board.
- 4. The applicant shall obtain necessary license/clearance from other relevant statutory agencies as required under the law.

I. WATER CONSUMPTION:

1. The source of water shall be from Borewell and shall obtain prior permission from the concerned

authority. Total water consumption shall not exceed as indicated below:

Particulars	Water Consumption(KLD)	Water Discharge(KLD)	Water Source	Existing/Proposed
Domestic Purpose	150.00	120.00	Borewell	Proposed
Domestic Purpose	140.00	112.00	Borewell	Proposed
Domestic Purpose	150.00	120.00	Borewell	Proposed
Manufacturing Processes	4250.00	1950.00	Borewell	Proposed
Spray in Mines	572.00	0.00	Borewell	Proposed
Spray in Mines	10.00	0.00	Borewell	Proposed
Others	80.00	80.00	Borewell	Proposed

II. WATER POLLUTION CONTROL:

- 1. The discharge from the premises of the applicant shall pass through the terminal manhole/manholes where from the Board shall be free to collect samples in accordance with the provisions of the Act/Rules made there under.
- 2. The sewage/domestic efflluent shall be treated in Septic Tank with Soak pit. No overflow from the soak pit is allowed. The septic tank and Soak pit shall be as per IS 2470 Part-I & Part-II.
- 3. The Effluent Treatment Plant proposal is generally agreeable and shall be constructed as per the specifications mentioned in the proposal and it shall consist of following units.

Sr	ETP Code	Category Name	Capacity	Units	Existing/Proposed
1	CDT	P-Chemical Dousing Tank	1.00	1	Proposed
2	CDT	P-Chemical Dousing Tank	1.00	1	Proposed
3	CDT	P-Chemical Dousing Tank	0.10	1	Proposed
4	COL	P-Collection Tank	0.00	0	Proposed
5	COL	P-Collection Tank	20.00	1	Proposed
6	COL	P-Collection Tank	20.00	1	Proposed
7	COL	P-Collection Tank	10.00	1	Proposed
8	FTP	P-Filter Press	3.00	1	Proposed
9	FTP	P-Filter Press	3.00	1	Proposed
10	FLO	P-Floculator	7.00	1	Proposed
11	FLO	P-Floculator	7.00	1	Proposed
12	FLO	P-Floculator	1.00	1	Proposed
13	NUE	P-Nuetralization	1.00	1	Proposed
14	NUE	P-Nuetralization	1.00	1	Proposed
15	NUE	P-Nuetralization	1.00	1	Proposed
16	AER	S-AERATION TANK	10.00	1	Proposed
17	AER	S-AERATION TANK	10.00	1	Proposed
18	AER	S-AERATION TANK	3.00	1	Proposed
19	SET	S-SETTLING TANK	0.00	0	Proposed
20	SET	S-SETTLING TANK	2.00	1	Proposed
21	SET	S-SETTLING TANK	10.00	1	Proposed
22	SET	S-SETTLING TANK	10.00	1	Proposed
23	SDB	S-Sludge Dry Beds	0.59	1	Proposed
24	SDB	S-Sludge Dry Beds	0.59	1	Proposed
25	SHT	S-SLUDGE HOLDING TANK	5.00	1	Proposed
26	SHT	S-SLUDGE HOLDING TANK	5.00	1	Proposed
27	SHT	S-SLUDGE HOLDING TANK	2.00	1	Proposed
28	STS	Septic tank & Soak pit	0.00	0	Proposed
29	STP	Sewage Treatment Plants	0.00	0	Proposed
30	STP	Sewage Treatment Plants	0.00	0	Proposed

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31	STP	Sewage Treatment Plants	200.00	1	Proposed
32	CFL	T-CARBON FILTER	3.00	1	Proposed
33	CFL	T-CARBON FILTER	3.00	1	Proposed
34	CFL	T-CARBON FILTER	1.50	1	Proposed
35	SFL	T-SAND FILTER	3.00	1	Proposed
36	SFL	T-SAND FILTER	3.00	1	Proposed
37	SFL	T-SAND FILTER	1.50	1	Proposed

- 4. The industry shall treat the domestic wastewater in the Sewage Treatment Plant (STP) as per the proposal submitted. It shall meet the standards specified in Annexure-I & shall be used on land for gardening/greenbelt within the factory premises.
- 5. If the treatment plant does not achieve the effluent standards stipulated in this consent order and/or if it is found to be inadequate, then the industry shall have to modify the units so as to meet the standards with prior consent of the Board.
- 6. All the treatment units shall be totally impervious.
- 7. The applicant shall provide separate flow meter for measuring the quantity of effluents through ETP and separate energy meter and shall maintain a logbook for the verification of inspecting officers.
- 8. The applicant shall operate and maintain Treatment Plant continuously and maintain at all times to achieve the stipulated standards as per Annexure-I & also maintain regular log-books/operation records.
- 9. There shall not be any increase in generation of Domestic sewage due to proposed expansion.
- 10. There shall be no bypass or discharge of effluents either within or outside the factory premises under any circumstances.
- 11. There shall not be any discharge of untreated trade/domestic sewage inside/outside the industry premises.
- 12. The applicant shall explore the possibility of reducing freshwater consumption & adopt recycling/ reuse.

III. AIR POLLUTION CONTROL:

- 1. The type of emissions, stack heights and the air pollution control equipment for the air pollution control sources to be installed as specified in **Annexure-II**.
- The discharge of emissions from the air pollution sources shall pass through the stacks/chimneys mentioned in Annexure-II where from the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made there under.
- 3. The stacks shall have port holes and platforms as per the guidelines specified in **Annexure-II** to facilitate monitoring of emissions.
- 4. The applicant shall upgrade/modify/replace the control equipments if they are found inadequate to meet the standards stipulated with prior permission of the Board shall be obtained for the same.
- 5. There shall not be any other sources of air pollution from the proposed expansion.
- 6. If there is going to be any new air pollution sources in future, the project authorities shall apply and obtain consent for establishment for the same from the Board.
- 7. Any fugitive emission has to be controlled to meet the ambient air quality standards.

IV. SOLID WASTE (OTHER THAN HAZARDOUS WASTE) DISPOSAL:

- 1. The applicant shall collect, treat and dispose off all solid waste generated during construction i.e. Muck, and Garbage after construction if any in such manner so as not to cause environmental pollution.
- 2. The details of solid waste generated from the expansion activity shall be as follows

Sr	Solid Waste Name	Qty-Unit	Mode of Disposal
1	Tailing Reject (solid) from Beneficiation Plant	227786.3000 - MTA	OTH
2	Over Burden (Iron Ore)	5066001.0000 - MTA	OTH
3	Over Burden (Manganese Ore)	14668782.0000 - MTA	OTH
4	Sludge from STP	3.0000 - MTA	OTH

V. HAZARDOUS AND OTHER WASTES (MANAGEMENT & TRANSBOUNDRY MOVEMENT) **RULES 2016:**

- 1. The industry shall apply and obtain authorization under Hazardous and Other Wastes (Management & Transboundry Movement) Rules 2016, and comply with the conditions of the authorization. The applicant shall apply for authorization along with the consent for operation (CFO) application under the Rules in Form-I to obtain authorization and comply with conditions.
- 2. There shall not be any Hazardous Waste generation from the proposed expansion project.

VI. NOISE POLLUTION CONTROL:

The applicant shall ensure that the ambient noise levels within its premises during construction and operational period shall not exceed w.r.t Area/Zone as per Noise Pollution (Regulation and Control) Rules, 2000 as mentioned below:-

- a) In Industrial Area 75 dB(A) Leg during day time and 70 dB(A) Leg during night time.
- b) In Commercial Area 65 dB(A) Leq during day time and 55 dB(A) Leq during night time.
- c) In Residential Area 55 dB(A) Leq during day time and 45 dB(A) Leq during night time.
- d) In Silence Zone 50 dB(A) Leq during day time and 40 dB(A) Leq during night time.
- Day time shall mean 6 am to 10 pm and Night time shall mean 10 pm to 6 am.
 - dB(A) Leg denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
 - A "decibel" is a unit in which noise is measured.
 - * "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
 - Leg: It is an energy mean of the noise level over a specified period.

VII. GENERAL CONDITIONS:

- 1. The applicant shall obtain prior permission from the competent authority for drawing of water from Surface/Ground water source and submit a copy of the same to the Board.
- 2. The applicant shall transport and store the raw materials in a manner so as not to cause any damage to environment, life and property. The applicant shall be solely responsible for any damages to environment.
- 3. The applicant shall not commission the proposed plant for trial or regular production unless necessary pollution control measures are installed as specified in this Consent Order.
- 4. The applicant shall ensure that the treatment plant and control equipments are completed and commissioned simultaneously along with construction of the factory and erection of machineries.
- 5. The applicant shall not change or alter (a) raw materials or manufacturing process, (b) change the products or product mix (c) the quality, quantity or rate of discharge/emissions and (d) install/replace/alter the water or air pollution control equipments without the prior approval of the Board.
- 6. The applicant shall immediately report to the Board of any accident or unforeseen act or event resulting in releas of discharge of effluents or emissions or solid wastes etc. in excess of the standards stipulated. And the industry shall immediately take appropriate corrective and preventive actions under intimation.
- 7. The applicant is liable to reinstate or restore, damaged or destroyed elements of environment at his cost, failing which, the applicant/occupier as the case may be shall be liable to pay the entire cost of remediation or restoration in advance an amount equal to the cost estimated by Competent Agency or Committee.
- 8. The Board reserves the right to review, impose additional condition or conditions, revoke, change or alter the terms and conditions.
- 9. This CFE does not give any right to the Party/Project Authority/Industry to forego any *other* legal requirement that is necessary for setting/operation of the plant.
- 10. The applicant shall furnish point wise compliance to the conditions given under this consent for establishment within 30 days.
- 11. The applicant shall take measures to develop green belt all along the periphery of the factory premises.
- 12. This consent is issued without prejudice to any Court Cases pending in any Hon'ble Court
- 13. The applicant shall comply with all the Conditions and guidelines issued by the Board from time to time.

Please note that this is only consent for establishment issued to you to proceed with the formalities for expansion of the industry and does not give any right to proceed trial/regular production. For this purpose, separate consents of the Board for discharge of liquid effluent and the emissions to the air shall have to be obtained by remitting prescribed consent fee. The application for consent has to be made 120 days in advance of commissioning for trial production of the plant.

The receipt of this letter may please be acknowledged.

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Consent Fee paid : Rs. 1400000

NOTE:

The Conditions II (9) & VI (b,c,d)mentioned above are not applicable.

FOR AND ON BEHALF OF KARNATAKA STATE POLLUTION CONTROL BOARD

MEMBER SECRETARY - CHIEF/SENIOR ENVIRONMENTAL OFFICER

Encl.: Annexure-I & II.

COPY TO:

- 1. The Environmental Officer, KSPCB, Regional Office Ballari for information and necessary action.
- 1. Master copy (Dispatch).
- 2. Office copy.

Additional Conditions:

The applicant shall comply with the conditions imposed in Annexures - I,IA,IB,II,IIA,IIB & III attached herewith and download the same from uploaded documents.



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Chi m.N o.	Chimne y attached to	KVA	Minimum chimney height to be provided above ground level (in Mts)	Constituents to be controlled in the emission	Tolerance limits mg/NM3	Fuel	Air pollution Control equipment to be installed,in addition to chimney height as per col.(4)	Date of which a pollution control equipments shat be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.
1	Convey or Belt	Downhill Conveyo r - Feed Hopper (TP & JH) & Vertical Bucket Conveyo	0	PM,SO2,NOx,C O, NMHC	PM < 600 ug/m3		DSS,GRB,H DC,WSP	Before Commissioning
2	D.G. Sets	IOBP - DGSet - 1000 KVA - 2 No's- 30 mts AGL each	30	PM,SO2,NOx,C O, NMHC	75,00,710,150, 100	DIE	AEC	Before Commissioning
3	D.G. Sets	Downhill Conveyo r System - D G Set - 500 KVA		PM,SO2,NOx,C O, NMHC	00,00,00,00,00	DIE	AEC	Before Commissioning
4	D.G. Sets	Iron ore - DG Sets - 10 KVA & 35 KVA - 2 nos. (mining area)	3	PM,SO2,NOx,C O, NMHC	00,00,00,00,00	DIE	AEC	Before Commissioning
5	D.G. Sets	Iron Ore - D G Set - 7.5 KVA - 8 Nos chimeny of 3 mts ARL each		PM,SO2,NOx,C O, NMHC	00,00,00,00,00	DIE	AEC	Before Commissioning
6		IOBP - Stationar y Vibro- grizzly 2200 TPH - 1 No	0	PM,SO2,NOx,C O, NMHC	PM < 600 ug/m3		GRB,HDC, WSP	Before Commissionin

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7	Fugitive Emissio n	IOBP - Screenin g plant - 2200 TPH - 1 No.	0	PM,SO2,NOx,C O, NMHC	PM < 600 ug/m3		DSS,GRB,H DC,WSP	Before Commissioning
8	Fugitive Emissio n	IOBP - Stationar y Roller Crusher - 660 TPH - 1 No	0	PM,SO2,NOx,C O, NMHC	M < 600 ug/m3		GRB,HDC, WSP	Before Commissioning
9	Jaw Crusher -2	IOBP - Stationar y Seconda ry Jaw Crusher 330 TPH - 1 No	0	PM,SO2,NOx,C O, NMHC	PM < 600 ug/m3		GRB,HDC, WSP	Before Commissioning
10	Jaw Crusher -1	IOBP - Stationar y Primary Jaw Crusher 880 TPH - 1 No.	0	PM,SO2,NOx,C O, NMHC	PM < 600 ug/m3		GRB,HDC, WSP	Before Commissioning
11	Fugitive Emissio n		0	PM,SO2,NOx,C O, NMHC	PM < 600 ug/m3		GRB,HDC, WSP	Before Commissioning
12	Fugitive Emissio n	Iron ore- Mobile Crushers 250 TPH - 4 No's	0	PM,SO2,NOx,C O, NMHC	PM < 600 ug/m3		GRB,HDC, WSP	Before Commissioning
13	Vibrator y Screen	Iron Ore- Mobile Screenin g Plant 250 TPH - 3 No's	0	PM,SO2,NOx,C O, NMHC	PM < 600 ug/m3		GRB,HDC, WSP	Before Commissioning

Note:

DSS,GR : Dust Suppressor

B,HDC,W SP

AEC : Accoustic Enclosures

GRB,HD : Green Belt

C,WSP

DSS,GR : Dust Suppressor

B,HDC,W

SP

GRB,HD : Green Belt

C,WSP

GRB,HD : Green Belt

C.WSP

GRB,HD : Green Belt

C,WSP

LOCATION OF SAMPLING PORTHOLES, PLATFORMS, ELECTRICAL OUTLET.

1. Location of Portholes and approach platform:

Portholes shall be provided for all Chimneys, stacks and other sources of emission. These shall serve as the sampling points. The sampling point should be located at a distance equal to at least eight times the stack or duct diameter downstream from any flow disturbance such as bend, expansion, contraction and visible flame. Further, the selected port has to be at least 2 stack/duct diameter before stack/duct exit or from any other flow disturbance. For rectangular stacks, an equivalent diameter can be calculated using following expression.

- 2. The diameter of the sampling port should not be less than 100mm dia". Arrangements should be made so that the porthole is closed firmly during the non sampling period.
- 3. An easily accessible platform to accommodate 3 to 4 persons to conveniently monitor the stack emission from the portholes shall be provided. Arrangements for an Electric Outlet Point off 230 V 15 A with suitable switch control and 3 Pin Point shall be provided at the Porthole location.
- 4. The ladder shall be provided with adequate safety features so as to approach the monitoring location with ease.



ANNEXURE - I

ADDITIONAL CONDITIONS TO ACCOMPANY CONSENT FOR ESTABLISHMNET (EXPANSION) ORDER OF M/S. THE SANDUR MANGANESE & IRON ORES LIMITED, ML NO. 2678 (OLD NO. 2580), SM BLOCK, DEOGIRI- LAKSHMIPURA VILLAGE, SANDUR TALUK, BALLARI DISTRICT.

M/s. The Sandur Manganese & Iron Ores Limited, is an existing Large Red category mine bearing ML No. 2678 (Old No. 2580) located at SM Block, Deogiri- Lakshmipura Village, Sandur Taluk, Ballari District.

The Mining authorities have obtained Consent for Establishment from the Board vide No. 197, dated:15.03.2006 for expansion of Manganese Ore extraction of capacity 0.275 Million TPA to 0.55 Million TPA and Iron Ore Extarction of capacity 0.3 Million TPA to 1.6 Million TPA and also to expand mining area from 877.28 Hectares to 1863.02 Hectares at ML No. 1179, Deogiri, SB Halli & Ramgad Villages, Sandur Taluk, Ballari District by M/s. The Sandur Manganese & Iron Ores Limited.

Subsequently, Environmental Clearance (EC) was issued by MoEF, GoI vide No. 110015/96/2006-IA.II(M) dated:24.01.2007 for enhancement of production of Manganese Ore from 0.275 Million TPA to 0.55 Million TPA and Iron Ore from 0.30 Million TPA to 1.60 Million TPA and increase in mine lease area from 877.28 Hectares to 1863.02 Hectares.

The Forest Clearance was issued vide No. 8-17/94-FC dt:14.03.2007 for diversion of 1615.64 Hectares of Forest land (629.90 Hectares already broken up + 985.74 Hectares to be broken) for a period of 20 years (i.e. upto 13.03.2027).

The Mining Lease was renewed as per MMDR Amendment Act, 2015 vide No. CI 214 MMM 2014 dated:23.09.2014 for a period of 20 years w.e.f. 01.01.2014 i.e. valid upto 31.12.2033. The mine lease was issued for reduced area of mining lease to 1860.10 Hectares (Revenue area: 247.38 Hectares + Forest area: 1612.72 Hectares)

The CEC concurrence was issued for enhancement of permissible annual production limit of 1.6 Million Tonnes of Iron Ore vide letter No. F.No.2-75/CEC/SC/2015-Pt.II dt: 18.03.2016 and 0.254 Million Tonnes of Manganese Ore vide letter F. No.2-75/CEC/SC/2015-Pt.III dt:27.06.2016.

The obtained approved IBM Mining Plan issued vide No. 279/281/91 /BNG-Vol-II/1130 dated:19.09.2022 is valid for the financial year 2023-2024 to 2027 to 2028. The permissible annual production is 1.6 Million Tonnes of Iron ore and 0.254 Million Tonnes of manganese Ore as per CEC concurrence.

The Mining authorities have obtained periodic Consent for Operation (CFO) time to time from the Board based on periodic approved IBM mining plan and CEC concurrence. The current CFO under the Water Act and Air Act was issued vide No.337271, dated:10.04.2023 for Iron Ore mining of production capacity 1.6 Million TPA as per CEC approval dtd:18.03.2016 and Manganese Ore mining of production capacity 0.254 Million TPA as per CEC approval dtd:27.06.2016 and it is valid upto 30.06.2028 subject to the condition of renewal of Forest Clearance issued on 14.03.2007.

Presently, the mining authorities have obtained Environmental Clearance (EC) for Expansion from MoEF & CC, GoI vide No. 110015/45/2021-IA.II(M) dt:25.04.2023 to increase in Iron Ore production from 1.60 to 4.50 MTPA retaining the Manganese Ore production at 0.55 MTPA with

SENIOR ENVIRONMENTAL OFFICER

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total excavation of 26.42 MTPA (Iron Ore ROM – 7.85 MTPA, Manganese Ore ROM – 1.34 MTPA, Top Soil – 0.19 MTPA & Waste – 17.04 MTPA) along with proposed 7.0 MTPA Ore Beneficiation Plant, 1.2 Km Down Hill Conveyor System & 0.15 MTPA Crushing & Screening Plant in the mine lease area of 1860.10 Hectares (ML No. 2678) located at villages Deogiri, Subbarayanahalli, Ramghad & Kammathuru, Sandur Taluk, Ballari District.

Based on the above grounds, the mining authority has applied for CFE-Exp under the Water Act and Air Act for the expansion activity as per EC dtd:25.04.2023 by paying adequate consent fees.

The subject on disposal of CFE-Expansion application was deliberated in the State Level Enforcement Committee Meeting held on 11.08.2023. The Committee recommended to issue CFExp with conditions to conduct socio economic survey, carryout annual air dispersion modeling for core zone & buffer zone and utilize rain water harvest for ore beneficiation towards making mine water neutral and spend atleast 1% of value of annual ore removal on EMP. Accordingly, the Consent for Establishment (expansion) is hereby issued with following Terms & Conditions

- 1) This Consent for Establishment (Expansion) is issued under the provisions of the Water Act, 1974 and the Air Act, 1981 for the following activities;
 - > To increase Iron Ore production capacity from 1.6 Million TPA to 4.5 Million TPA
 - > To establish Ore Beneficiation Plant of with through put capacity of 7.0 Million TPA (production of capacity 4.35 Million TPA)
 - Down Hill Conveyor System of 1.2 Km length.
 - Crushing & screening plant of capacity 0.15 MTPA
- 2) The proposed expansion activity shall establish in the mine lease area of 1860.10 Hectares located at villages Deogiri, Subbarayanahalli, Ramghad & Kammathuru, Sandur Taluk, Ballari District as per Environmental Clearance dt:25.04.2023.
- 3) This Consent for Establishment (Expansion) is issued is valid upto 31.12.2033. (co-terminus with validity of EC dt:25.04.2023).
- 4) The new Beneficiation plant shall be established within the mine lease area (revenue land) in an extent of about 25 Hectares i.e. Sy. No. 01 of Deogiri Village of Sandur Taluk, Ballari District subject to the compliance to Siting Guidelines as per GoK Notification dtd:10.12.2021.

Specific conditions recommended by the Enforcement Committee Meeting held on 11.08.2023 to be complied by the Mining Authority are as follows;

- 1. The applicant shall conduct socio economic survey of surrounding villages through authorized agency to collect socio-economic data of improving/understanding of local resource management systems, resource use and the relative importance of resources for villages and submit progress report to the Board quarterly.
- 2. The applicants shall carryout annual air dispersion modeling for core zone & buffer zone to determine air quality impacts in the atmosphere through EPA air quality modeling groups and submit report to the Board.
- 3. The applicant shall allocate atleast 1% of the value of annual Ore extraction on Environmental Management Plan and submit proposal to the Board.

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4. The applicant shall utilize harvested rain water for Beneficiation process at maximum extent to conserve fresh/ground water and submit details of collection and storage capacity of rain water provided in the mine area.

Other Additional Conditions:

- 5. The applicant shall adopt soil and moisture conservation measures and submit report to the Board.
- 6. The applicant shall install CAAQM station as per CPCB guidelines under Environmental Management Plan to assess the air quality in the area and submit proposal to the Board within three months.
- 7. The applicant shall implement progressive mine closure plan systematically in compliance of Mineral Conservation and Development (Amendment) Rules, 2003 and submit progress report to the Board.
- 8. The applicant shall provide additional Wheel washing system at appropriate locations to minimize generation of fugitive dust emission during movement of vehicles and submit proposal to the Board.

A. TERMS AND CONDITIONS:

I. WATER POLLUTION CONTROL:

1. TREATMENT AND DISPOSAL OF EFFLUENTS UNDER THE WATER ACT:

 i) The source of water is from bore-wells and rain water harvesting pits. The daily quantity of effluent generation and discharge from expansion activity shall not exceed the quantity given below;

SI. No	Particulars	Water consumption for expansion activity in KLD	Waste water generated from expansion activity in KLD	Treatment and disposal
1	Domestic (mining area & beneficiation plant)	150	120	Sewage generated from expansion activity shall be treated in septic tank & soak pits at different locations in mine lease area.
2	Domestic (Colony & town ship)	140	112	Additional sewage generation from colony & township shall be treated in proposed new STP of capacity 200 KLD at Deogiri (township).
3	Beneficiation plant	4250	1950	Initially about 6200 KL of water to be used for beneficiation process. About 4250 KLD of water to be used as makeup water everyday. About 1950 KLD of water to be recirculated into the beneficiation process after treatment in thickeners followed by filter press. The tailings waste to be collected in designated area and dry tailings shall be used for backfilling of mined pits.

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4	Others (Vehicles Washing)	80	80	Vehicle washing effluent shall be treated in new ETPs of capacity 50 KLD each to be installed at Subbrayanahalli & Deogiri and 10 KLD ETP at Deogiri. The treated water shall be used for dust suppression & green belt development.
5	Spraying in mines	572	MULIO	Used for Green belt development and dust suppression purposes.

ii) The design details of proposed new STP of capacity 200 KLD with MBBR technology as

submitted in the proposal to meet the standards stipulated are as follows;

Sl. No.	STP units	Size in meters		
1	Bar Screen Chamber	1.50m L x 1.0m W x 1.0m		
2	Oil & Grease removal chamber	1.50m L x 2.0m W x 4.0m + 0.3m FB		
3	Equalization tank	4.25m L x 5.0m W x 4.0m + 0.3m FB		
4	Anoxic Tank	1.25m L x 5.0m W x 4.0m + 0.3m FB		
5	MBBR Reactor Tank	4.25m L x 5.0m W x 4.0m + 0.3m FB		
6	Tube Settler	1.25m L x 5.0m W x 4.0m + 0.3m FB		
7	Intermediate Tank	4.0m L x 1.0m W x 4.0m + 0.3m FB		
8	Sludge Tank	4.0m L x 3.7m W x 4.0m + 0.3m FB		
9	Pressure sand filter	Media-Fine sand		
10	Activated Carbon filter	Media-Activated carbon		
11	Chlorine dosing system	4 lts/day		
12	Centrifuge/Filter press	Clared Ballacero		
13	Treated water tank	16.2m L x 6.0m W x 4.0m + 0.3m FB		

iii) The design details of ETP of capacity 10 KLD as submitted in the proposal to meet the

standards stipulated are as follows;

Sl. No.	ETP units	Volume in m ³	
1	Bar Screen	0.5 m ³ (1-Fine & 1-Coarse screen)	
2	Oil & Grease trap cum Grit chamber	0.5 m ³	
3	Equalization cum collection tank	2.0 m^3	
4	Flash Mixer	0.5 hp	
5	Aeration (Reaction tank) Aeration Tank + Anoxic Tank + Aerobic Tank	3.0 m ³	
6	Flocculation tank (Primary Clarifier)	1.0 m ³	
7	Lamella Settler (2 nd Stage Clarifier)	2.0 m ³	
8	Intermediate Storage Settling Tank (2 nd Stage Clarifier)	2.0 m ³	
9	Chemical dosing tank for Neutralization	1.0 m ³	

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iv) The design details of two ETPs (for treatment of vehicle washing effluent) of capacity 50 KLD each as submitted in the proposal to meet the standards stipulated are as follows:

Sl. No.	Units for ETP of 50 KLD (2 nos.)	Size in meters		
1	Bar Screen Chamber (2 nos.)	0.6m L x 0.6m W x 1.0m		
2	Oil & Grease removal chamber (2 nos.)	1.0m L x 1.0m W x 2.0m		
3	Equalization tank	3.0m L x 3.0m W x3.30m		
4	pH and Flocculation Chamber (2 nos.)	1.0m L x 1.0m W x 1.0m		
5	Tube Settler	3.0m L x 1.0m W x 2.8m		
6	Intermediate Tank	2.0m L x 1.0m W x 2.8m		
7	Sludge Tank	1.8m L x 2.2m W x 2.8m		
8	Pressure sand filter	Media-Fine sand		
9	Activated Carbon filter	Media-Activated carbon (range: 15 m3/Hr)		
10	Chlorine dosing system	4 lts/day		
11	Centrifuge/Filter press	8"		
12	Treated water tank	5.4m L x 2.0m W x 2.8m		

- v) If the STP & ETP treatment plants do not achieve the standards stipulated in **Annexure-IA & IB** or if it is found to be inadequate, then the applicant shall have to modify the units so as to meet the standards with prior consent of the Board.
- iv) All the treatment units shall be made impervious and construct above ground level.
- v) The ETP & STP site, inspection chamber, outlet, flow measuring points should be made easily approachable to the inspection Officers.
- vi) The applicant shall provide flow measuring device at both inlet and outlet of ETP & STP along with separate energy meter.
- vii) The applicant shall display the approved flow sheets in both ETP & STP area on a board along with discharge standards stipulated in the consent order.
- viii) The applicant shall treat sewage and trade effluent to the standards stipulated in **Annexure-IA & IB** and ensure the parameters are meeting the stipulated standards.
- ix) The applicant shall not allow the discharge from the other premises to mix with the discharge from his premises. Storm water shall not be allowed to mix with the effluents on the upstream of the terminal manhole where the flow measuring devices are installed.
 - x) There shall not be bypass or discharge of any effluent outside the industry premises at any point of time.
 - xi) The applicant shall take suitable steps so that there will be reduction of the fresh water consumption as well as wastewater generation from the industry.

II. AIR POLLUTION CONTROL:

- 1. The industry authorities shall provide control equipments for the control of emissions. The rate of emissions discharged and the tolerance limits of the constituents forming the emissions in each of the stacks shall not exceed the limits laid down as **Annexure-II**.
- 2. If there is going to be any new Air pollution sources in future, the project authorities shall apply and obtain consent for establishment for the same from the Board.
- Fugitive emission near mining area has to be controlled by adopting advance technology. Progress made in this regard shall be furnished
- 4. The mining authorities shall provide control equipment's for the control of fugitive emissions.

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5. The applicant shall increase the height of the chimney attached to 1010 KVA DG set to 30 mts AGL within 30 days and submit compliance with photographs.

III. HAZARDOUS AND OTHER WASTE (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) Rules, 2016;

1. The applicant shall apply and obtain authorization under Hazardous Waste Management Rules, 2016 for additional quantity before commissioning of expansion activity.

IV. SOLID WASTE (OTHER THAN HAZRADOUS WASTE) DISPOSAL:

1. The applicant shall collect, treat and dispose off all solid waste generated from the process, in such a manner so as not to cause environmental pollution.

2. The details of solid waste generation from expansion activity and mode of disposal shall

be as follows:

Type of solid waste	Quantity generated from expansion activity (TPA)	Mode of disposal		
Over burden (Iron Ore)	5,066,001	Overburden waste generated during expansion of mining activity shall be dumped within the mine lease area and then backfilled as per approved IBM mining plan. The dump shall be periodically stabilized to take up plantation.		
Tailing reject (solid) from beneficiation plant	2,27,786.3	Dried tailings after recovery of water from tailing filtration system shall be stored in earmarked area and disposed as backfilling of mined pits.		
Sludge from STP	3.0	Shall be sued as manure.		

- 3. The tailing waste shall be subjected to filtration process for de-watering and collect tailing rejects as filter cake for storage and dispose as backfilling of exhausted mine pits. The recovered water shall be re-used in the beneficiation process.
- 4. The applicant shall maintain records on generation and disposal of solid wastes.

V. SPECIFIC CONDITIONS:

- 1. This CFE-Expansion is granted only to proceed for installation of expansion activity and does not give any right to take up trial /regular production or activity.
- 2. The applicant shall obtain Consent to operate the expansion activity prior to taking up the trial production or commissioning of the activity.
- The applicant shall adopt the principles listed in the Mission Life Lifestyle for Environment List of Actions enlisted on the URL, https://moef.gov.in/en/missionlife/list-of-actions/ towards an environmentally conscious lifestyle and shall impart training to inmates on the same.
- 4. The industry shall maintain the house keeping within the industry premises satisfactorily at all time.
- 5. The applicant shall take measures to dispose solid and liquid waste in scientific manner.
- The applicant shall not carry out any other activity for which consent has not been issued from the Board.
- 7. The applicant shall take steps to control noise levels so as to maintain ambient air quality standard in respect of noise as laid down under Air Act 1981.

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- 8. The consent is issued without prejudice to any Court cases pending in any Hon'ble Court.
- 9. The applicant shall not change or alter either the quality or the quantity or the rate of discharge or route of discharge without prior approval of the Board.
- 10. There shall not be any complaints against the mining activity from the surrounding public in respect of Water, Air or Noise/ Solid waste generation.
- 11. The Noise generated in the mining premises shall be within the prescribed limits of 75 dB (A) leq. During day time and 70 dB (A) leq. during night time.
- 12. The applicant shall set-up Environmental Cell comprising of qualified Environmental Engineer/Environmental Officer to comply with the conditions.
- 13. The applicant shall adopt solar light system for all common area, street lights, parking around factory premises and maintain the same regularly.
- 14. The applicant shall maintain green belt with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- 15. The applicant shall maintain storm water management system for the entire area.
- 16. The applicant shall provide rain water harvesting system with internal drainage system.
- 17. The applicant shall obtain all other statutory permissions under all such Acts whichever is applicable. This consent does not prevent operation of any other law in force. Failing to comply with any such provisions will attract penal actions from such Acts. The applicant shall solely be responsible for such Acts. This consent shall not be used to circumvent any other statutory provisions.

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ANNEXURE -I (A) (For treated sewage)

Standards stipulated below before utilizing for landscape/irrigation/secondary purposes

Sl.No	Parameter	Tolerance limit	Frequency of monitoring
1.	pH	6.5 - 9.0	
2.	BOD (mg/l)	Not more than 10	
3.	COD (mg/l)	Not more than 50	Once in every month
4.	TSS (mg/l)	Not more than 20	
5.	NH4-N (mg/l)	Not more than 5	
6.	N-Total (mg/l)	Not more than 10	
7.	Fecal Coliform (MPN/100 ml)	Less than 100	

TABLE HYDRAULIC LOADING APPLICABLE FOR DIFERENT SOILS

Sl.No	Soil Texture	Loading rate in M ³ /Hec/day
1	Sandy	225 to 280
2	Sandy Loam	170 to 225
3	Loam	110 to 170
4	Clay Loam	055 to 110
5	Clayey	035 to 055

ANNEXURE –I (B) (For treated trade effluent) STANDARDS FOR TREATED TRADE EFFLUENT

Treated Effluent Standards					
Parameters	Tolerance limit in mg/l, except for pH	Frequency of monitoring			
pН	6.0-8.50				
Suspended Solids	100				
BOD, 3 days at 27°C	30	Once in every month			
COD	250				
Oil and Grease	10				
Ammonical Nitrogen, as N	50				

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ANNEXURE - II

Sl. No.	Chimney Attached to	Minimum Chimney Height to be Provided	to be	limits	Air Pollution Control equipment to be installed, in addition to Chimney height as per Col (3)
1.	Screening plant- 2200 TPH – 1 No's (at Beneficiation plant)	NA	Particulate Matter	600 μg/m3	To be covered with MS Sheets with water sprinkling arrangements.
2.	DG Set-7.5 KVA- 8 No's (at Mining area)	3mtrs ARL each	SO2		With Acoustic enclosures.
3.	DG Set - 500 KVA (Downhill Conveyor system)	12mtrs ARL	SO2		With Acoustic enclosures.
4.	Mobile Screening plant -250 TPH - 3 No's (at Mining area)	NA	Particulate Matter	600 μg/m3	To be covered with MS Sheets with water sprinkling arrangements.
5.	Stationary Primary Jaw Crusher Plant - 880 TPH (at Beneficiation plant)	NA	Particulate Matter	600 μg/m3	To be covered with MS Sheets with water sprinkling arrangements.
6.	DG Set-1000 KVA - 2 No's. (at Beneficiation plant)	Individual chimney of 30 mtrs AGL	NOx* NMHC** PM*** CO****	710 PPmv 100 mg/ Nm3 75 mg/ Nm3 150 mg/ Nm3	With Acoustic enclosure
7	Mobile Crushers – 250 TPH-4 No's (at Mining area)	NA	Particulate Matter	600 μg/m3	To be covered with MS Sheets with water sprinkling arrangements.
8	Mobile Crushing & Screening Plant - 250 TPH - 2 No's. (Proposed at Mining project).	NA	Particulate Matter	600 μg/m3	Covered with MS Sheets with water sprinkling arrangements.
9	Stationary Roller Crusher Plant - 660 TPH (at Beneficiation plant)	NA	Particulate Matter	600 μg/m3	To be covered with MS Sheets with water sprinkling arrangements.
10	Stationary Secondary Jaw Crusher Plant - 330 TPH (at Beneficiation plant)		Particulate Matter	600 μg/m3	To be covered with MS Sheets with water sprinkling arrangements.

11	Stationary Vibro grizzly - 2200 TPH (at Beneficiation plant)	NA	Particulate Matter	600 μg/m3	To be covered with MS Sheets with water sprinkling arrangements.
12	DG Set – 35 KVA and 10 KVA -2 No's (Mining area)	3mtrs ARL	SO2		With Acoustic enclosures.
13	Downhill Conveyor – Feed hopper (TP & JH) and Vertical Bucker conveyor. (Downhill Conveyor system)	NA	Particulate Matter	600 μg/m3	To be covered with MS Sheets with water sprinkling arrangements.

NOTE: The Noise level shall not exceed 75 dB(A) leq. During day time (6 AM to 10PM) and 70 dB (A) leq. during night time (10 PM to 6 AM). (as NO2) (at 15% O²) dry basis in ppmv. (as C) (at 15% O²) mg/Nm³ (at 15% O²) mg/Nm³ (at 15% O²) mg/Nm³

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ANNEXURE - IIA

Fugitive Emission Standards Particulate Matter 600 μg/m³

Note: Fugitive emission shall be monitored in the predominant downwind direction at a distance 25.0 ± 2.0 meters from the source of fugitive emission as per following:

Area	Monitoring location			
Mine face/Benches	Drilling, excavation and loading applicable for operating benches above water table.			
Haul Roads/Service Roads Haul roads to ore processing plant, waste dumps and loads areas and service road.				
Crushing plant	Run-off mine unloading at hopper, crushing areas, screens and transfer points.			
Screening Plant				
Ore Storage & Loading	Intermediate stock bin/pile areas, ore stock bin/pile areas, wagon/truck loading areas.			
Waste Dump	Active waste/reject dumps.			

Effluent Standards

рН	5.5-9.0
Suspended solids (non-rainy day)	50 mg/l
Suspended Solids (rainy day)	100 mg/l
Oil & grease	10 mg/l

Note:

(i) All efforts shall be made to reuse and re-circulate the treated effluent.

(ii) The aforesaid effluent standards shall be complied with for sewage, service water, beneficiation of ore washwater and surface run-off put together.

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ANNEXURE-IIB

NATIONAL AMBIENT AIR QUALITY STANDARDS

		Concentration	in Ambient Air	Carrent Meyers and Commission	
Pollutant	Time Weighted Average	Industrial, Residential, Rural & other Areas	Ecologically sensitive area (Notified by Central Government)	Method of Measurement	
Sulphur Dioxide (SO ₂)	Annual* 24 Hours**	50 μg/m ³ 80 μg/m ³	20 μg/m ³ 80 μg/m ³	Improved West and Gacke method.Ultraviolet fluorescence.	
Nitrogen Dioxide (NO ₂)	Annual* 24 Hours**	40 μg/m ³ 80 μg/m ³	30 μg/m ³ 80 μg/m ³	 - Modified Jacob & Hochheiser (Na-Arsenite) Method. - Chemiluminescence. 	
Particulate Matter (Size less than 10 μm) or PM ₁₀	Annual* 24 Hours**	60 μg/m ³ 100 μg/m ³	60 μg/m ³ 100 μg/m ³	- Gravimetric TOEM Beta attenuation.	
Particulate Matter (Size less than 2.5 μm) or PM _{2.5}	Annual* 24 Hours**	40 μg/m ³ 60 μg/m ³	40 μg/m ³ 60 μg/m ³	- Gravimetric TOEM Beta attenuation.	

- * Annual Arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform interval.
- ** 24 hourly/8 hourly/1 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note:

Whenever & wherever monitoring results on two consecutive days of monitoring exceeds the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.

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ANNEXURE – III ADDITIONAL CONDITIONS

- 1. There shall not be any point source of air pollution in the project.
- 2. The applicant shall monitor the Fugitive Emissions at places as described in **Annexure-II & IIA** and submit reports to the Board once in three months. The Particulate Matter monitored in the predominant downwind direction at a distance 25.0 ± 2.0 meters from the source of Fugitive Emissions shall not exceed 600 μg/m3.
- The applicant shall conduct Ambient Air Quality Monitoring in the area and the Ambient Air Quality shall confirm to the National Ambient Air Quality Standards (NAAQS) prescribed in Environment (Protection) Seventh Amendment Rules 2009, as per Annexure-IIB enclosed.
- 4. Wet drilling method shall be adopted to avoid dust emissions. Controlled blasting shall be adopted to minimize ground vibrations and flying rocks.
- The mode of disposal of solid waste and the area selected for the same shall be got approved by the Board duly furnishing the relevant information within 30 days from the receipt of this consent for establishment.
- 6. The excavated pits shall be filled with overburden material and sufficient plantation shall be carried out as per the reclamation programme/progressive mine closure plan.
- 7. The dumping of overburden shall be done systematically as per the EMP in IBM approved mining plan.
- 8. Bunds of sufficient height and length to be constructed to stop the storm water flowing through the dumps of the mining area. This will prevent the rush of storm water carrying the loose soil to the adjoining area/ agricultural fields.
- Construction of sufficient check dams, gully plugs, retaining wall, and contour trenches to control soil erosion from the top of the dumps shall be undertaken as per approved Mining Plan of IBM.
- 10. The applicant shall adopt continuous water sprinkling system to suppress the dust particles in the mining area and also while transporting the Ore.
- 11. The applicant shall carryout reclamation of the mines area and shall take intensive afforestation measures.
- 12. The applicant shall dump the over burden in designated area as per IBM approved plan. The dump shall be periodically stabilized through plantation. Adequate numbers of retaining wall shall be provided to arrest run off during monsoon. Continuous water sprinkling system shall be adopted to suppress dust nuisance.
- 13. The applicant shall comply with the conditions imposed in the Environmental Clearance issued from MoEF & CC, GoI vide No. 110015/45/2021-IA.II(M) dt:25.04.2023.
- 14. The applicant shall carryout Environmental monitoring as per schedule mentioned in the EIA to obtain Environmental Clearance.
- 15. The mining and its allied activities shall be carried out systematically adhering to the Environmental Impact Assessment (EIA), Environment Management Plan and Mining Plan as approved IBM Mining Plan issued vide No. 279/281/91 /BNG-Vol-II/1130 dated:19.09.2022.
- 16. The applicant shall submit half yearly consent compliance reports (April to September in the month of December and October to March in the month of June) to the Board.

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