



**Consent For Operation
(CFO-Air,Water)**

Consent No. AW-303611
Valid upto: 18/11/2020

Karnataka State Pollution Control Board
Parisara Bhavana, No.49, Church
Street, Bengaluru-560001
Tele : 080-25589112/3, 25581383
Fax:080-25586321
email id: ho@kspcb.gov.in

Industry Colour: RED Industry Scale: LARGE

(This document contains 5 pages including annexure & excluding additional conditions)

Combined Consent Order No. AW-303611 PCB ID: 31856 Date: 06/09/2017

Combined consent for discharge of effluents under the Water (Prevention and Control of Pollution) Act, 1974 and emission under the Air (Prevention and Control of Pollution) Act, 1981

- Ref: 1. Application filed by the applicant/organization on 30/03/2017
2. Inspection of the Industry/organization/by RO, on 31/03/2017
3. Proceedings of the CCM dated 04/05/2017, held on 25/04/2017

Consent is hereby granted to the Occupier under Section 25(4) of the Water (Prevention & Control of Pollution) Act, 1974 (herein referred to as the Water Act) & Section 21 of Air (Prevention & Control of Pollution) Act, 1981, (herein referred to as the Air Act) and the Rules and Orders made there under and authorized the Occupier to operate /carryout industry/activity & to make discharge of the effluents & emissions conforming to the stipulated standards from the premises mentioned below and subject to the terms and conditions as detailed in the Schedule Annexed to this order.

Location:

Name of the Industry: Jsw Steel Limited (Tunga-Tungabhadra Mines)
Address: ML No. 2366, Ittanahalli Village, Sandur Taluk, Ballari District.
Industrial Area: Not In I.A, Ittanahalli,
Taluk: Sanduru, District: Bellary

CONDITIONS:

a) Discharge of effluents under the Water Act:

Sr	Water Code	WC(KLD)	WWG(KLD)	Remark
1	Domestic Purpose	5.000	4.000	Domestic sewage is discharged to Septic tank & Soak pit
2	Spray in Mines	200.000	0.000	Water is used for Dust suppression and Gardening purposes.

b) Discharge of Air emissions under the Air Act from the following stacks etc.

Sl. No.	Description of chimney/outlet	Limits specified refer schedule
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The details of Sources, control equipments and its specification, type of fuel, constituents to be controlled in emissions etc. are detailed in Annexure-II.

The consent for operation is granted considering the following activities/Products;

Sr	Product Name	Applied Qty/Month	Unit
1	Iron Ore	0.000	---
2	Iron Ore Mining of capacity 0.30MMTPA (As CEC & M. Committee qty dt. 18&21th Jan-17)	25000.0000	M.T

This consent is valid for the period from 30/03/2017 to 18/11/2020

For and on behalf of the
Karnataka State Pollution Control Board



SHIVALINGE GOWDA KN -
CHIEF/SENIOR ENVIRONMENTAL
OFFICER

To,
Jsw Steel Limited (Tunga-Tungabhadra Mines)
Mining Office, Vijayanagara
Works, Toranagallu, Sandur
Tq.



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COPY TO:

The Environmental Officer, KSPCB, Regional Office Bellary for information and necessary action.

2. Master Register.

3. Case file.

Consent Fee paid : Rs. 300000

SCHEDULE

TERMS AND CONDITIONS

A. TREATMENT AND DISPOSAL OF EFFLUENTS UNDER THE WATER ACT.

1. The discharge from the premises of the occupier 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(a). The sewage/domestic effluent shall be treated in septic tank and 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.

2(b). The treated sewage effluent discharged shall conform to the standards specified in Annexure-I.

3(a). The trade effluent generated in the industry shall be treated in the ETP and treated effluent shall conform to the standards stipulated by the Board in Annexure-I

3(b). The trade effluent shall be handed over to CETP and maintain logbook of effluent generated & sent every day.

4. The applicant shall install flow measuring/recording devices to record the discharge quantity and maintain the record.

5. The applicant shall not change or alter either the quality or the quantity or the place of discharge or temperature or the point of discharge without the previous consent/ permission of the Board.

6. 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.

7. The daily quantity of domestic effluent and trade effluent from the industry shall not exceed the limits as indicated in this consent order:

8. The applicant shall discharge the effluents only to the place mentioned in the Consent order and discharge of treated/untreated outside the premises is not permitted.

B. EMISSIONS:

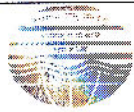
1. The discharge of emissions from the premises of the applicant shall pass through the air pollution control equipment and discharged through stacks/chimneys mentioned in Annexure-II where from the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made there under. The tolerance limits of the constituents forming the emissions in each of the stacks shall not exceed the limits laid down in Annexure-II.

2. The applicant shall provide port holes for sampling of emission, access platforms for carrying out stack sampling, electrical points and all other necessary arrangements including ladder as indicated in Annexure-II.

3. The applicant shall upgrade/modify/replace the control equipment with prior permission of the Board.

C. WATER CESS:

1. The applicant shall provide water meter at all the intake points as specified under Section (5) of the Water Cess Act, 1977 and shall file the Water Cess returns regularly before fifth of every month and also pay the Cess assessed with the time stipulated.



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D.MONITORING & REPORTING:

1. The applicant shall get the samples of effluents & emissions collected and get them analyzed once a month/ either by in house monitoring laboratory or through EP approved laboratories for the parameters as Indicated in Annexure I & II.
2. The applicant shall maintain log books to reflect the working condition of pollution control systems and also self monitoring results and keep it open for inspection.

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

1. The applicant shall segregate solid waste from Hazardous Waste, Municipal Solid Waste and store it properly till treatment/disposal without causing pollution to the surrounding Environment.
2. The solid waste generated shall be handled & disposed by scientific method without causing eye sore to the general public and to the surrounding environment.

F. NOISE POLLUTION CONTROL:

1. The applicant shall ensure that the ambient noise levels within its premises shall not exceed the limits i.e 75 dB(A) Leq during day time and 70 dB(A) Leq during night time as specified in under the Air (Prevention and Control of Pollution) Act, 1981.

G. HAZARDOUS AND OTHER WASTES (MANAGEMENT & TRANSBOUNDARY MOVEMENT) Rules 2016:

The applicant shall comply with the provisions of the Hazardous and other Wastes (Management & Transboundary Movement) Rules 2016.

H. GENERAL CONDITIONS:

1. The applicant shall not allow the discharge from the other premises to mix with the discharge from his premises.
2. The applicant shall promptly comply with all orders and instructions issued by the Board from time to time or any other officers of the Board duly authorized in this behalf.
3. The applicant shall set-up Environmental Cell comprising of qualified and competent personnel for complying with the conditions specified.
4. The Board reserves the right to review, impose additional conditions, revoke, change or alter terms and conditions of this consent.
5. The applicant shall forthwith keep the Board informed of any accidental discharge of emissions/effluents into the atmosphere in excess of the standards laid down by the Board. The applicant shall also take corrective steps to mitigate the impact.
6. The applicant shall provide alternate power supply sufficient to operate all Pollution control equipments.
7. The entire premises shall always be kept clean. The effluent holding area, inspection chambers, outlets, flow measuring points should made easily approachable.
8. The applicant shall display the consent granted in a prominent place for perusal of the inspecting officers of the Board.
9. The applicant his heirs, legal representatives or assignee shall have no claims what so ever to the continuation or renewal of this consent after expiry of the validity of consent.

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10. The applicant shall make an application for consent for subsequent period at least 45 days before expiry of this consent.
11. The applicant shall develop and maintain adequate green belt all around the periphery.
12. The applicant shall provide rain water harvesting system and shall provide proper storm water management system.
13. This consent is issued without prejudice to any Court Cases pending in any Hon'ble Court
14. The applicant shall furnish the Environmental statement for every financial year ending with 31st March in Form-V as per Environment (Protection) Rules, 1986. The statement shall be furnished before the end of September.
15. The applicant shall display flow diagram of the pollution control system near the pollution control system/s.

NOTE:

The Conditions A.2(b), 3(a), 3(b) mentioned in the schedule are not applicable.

Additional Conditions:

This consent is granted for the period up to 18.11.2020 (Co-terminus with mine lease validity) for iron ore mining of capacity 0.30MTPA only. Also refer the uploaded documents.

For and on behalf of the
Karnataka State Pollution Control Board



**SHIVALINGE GOWDA KN -
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Chimney No.	Chimney attached to	Capacity/ KVA Rating	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 air pollution control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.
1	Fugitive Emission	IOC&Scr een-250TPH		0 PM(mg/NM3), SO2 (PPM), NOx(PPM)	SPM		WSP	Before commissioning.
2	D.G. Sets	DG Set-500 KVA		7 PM(mg/NM3), SO2 (PPM), NOx(PPM)	75,36,710	DIE	AEC	Before commissioning.

Note:

WSP : Water Sprinkler

AEC : Accoustic Enclosures



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Note:

1. The Noise levels within the premises shall not exceed 75 dB (A) leq during day time and 70 dB(A) leq during night time respectively.
2. The DG set shall be provided with acoustic measures as per SI.No.94 in Schedule-I of Environment (Protection) Rules.
3. There shall be no smell or odour nuisance from the Industry.

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 atleast eight times the stack or duct diameters downstream and two diameters upstream from source of low disturbance such as a Bend, Expansion, Construction Valve, Fitting or Visible Flame for rectangular stacks, the equivalent diameter can be calculated from the following equation.

$$\text{Equivalent Diameter} = \frac{2 (\text{Length} \times \text{Width})}{(\text{Length} + \text{Width})}$$

2. The diameter of the sampling port should not be less than 100 mm 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 of 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.

ADDITIONAL CONDITIONS

General conditions:

- Fugitive emissions shall be monitored as per Annexure - III and reports shall be submitted to the Regional Office.
- National Ambient Air Quality standards are as per Annexure - IV.
- The applicant shall maintain good roads around the mining area as social obligation and also to mitigate dust pollution.

Afforestation Measures:

- The mining authorities shall take up afforestation/compensatory afforestation as suggested by the Forest Department all along the boundary of mine and also in an area earmarked in IBM Plan from the first day of mine lease agreement. Also, a logbook on number of saplings planted, survival, etc., shall be maintained.
- The mining authorities shall take up tree plantation continuously year after year during rainy seasons either under compensatory afforestation scheme or on their own to preserve the environment and nature's status quo in the mining area, an amount of minimum 2% of the turnover every year shall be earmarked for this purpose.
- The mining authorities should take up intensive afforestation measures after stabilization of the dumps to prevent soil erosion and in consultation with Forest Department.
- Minimum 5 rows of tall growing leaf trees should be planted around the crusher plant area to minimize dust and improve aesthetic appearance.
- The mining authorities shall carry out reclamation of the mines area and shall take intensive afforestation measures.
- The mining authorities shall protect the environment and natural growth of vegetation in the area proposed for lease.

Storm Water Management:

- The mining company should carry out soil and water conservation measures as suggested by the Ministry of Environment & Forests, Government of India, New Delhi, the Karnataka State Pollution Control Board and the Department of Mines and Geology. Also, water harvesting and groundwater recharge facilities shall be provided in the mining area.
- The mining authorities shall ensure that the top soil from the mining operation shall carefully be removed without causing soil erosion, and siltation in the area/valleys.

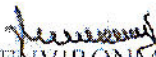
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- The mining authorities shall dump the over burden in designated area as per IBM approved plan. The dump shall be periodically stabilized to take up plantation. Adequate numbers of retaining wall shall be provided to arrest run off. Continuous water sprinkling system shall be adopted to suppress dust nuisance.
- The mining authorities shall take up recharging of groundwater sources in the mining area as and when the suggestions are made by the Department of Mines & Geology.


SENIOR ENVIRONMENTAL OFFICER

ANNEXURE-III

Fugitive Emission Standards	
Particulate Matter	1200 $\mu\text{g m}^{-3}$
<p>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:</p>	
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 loading areas and service road.
Crushing plant	Run-off mine unloading at hopper, crushing areas, screens and transfer points.
Screening Plant	Screens, conveying and transportation of ore discharge points.
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	
pH	5.5-9.0
Suspended solids (non-rainy day)	50 mg/l
Suspended Solids (rainy day)	100 mg/l
Oil & grease	10 mg/l
<p>Note:</p> <p>(i) All efforts shall be made to reuse and re-circulate the treated effluent.</p> <p>(ii) The aforesaid effluent standards shall be complied with for sewage, service water, beneficiation of ore washwater and surface run-off put together.</p>	


 SENIOR ENVIRONMENTAL OFFICER

ANNEXURE-IV
NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Time Weighted Average	Concentration in Ambient Air		Method of Measurement
		Industrial, Residential, Rural & other Areas	Ecologically sensitive area (Notified by Central Government)	
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.

[Signature]
SENIOR ENVIRONMENTAL OFFICER