ADDENDUM

Sub: Addendum for extension of Consent validity of Iron ore Mining of capacity 0.408 MTPA to M/s. Nandi Iron Ore Mines of M/s. JSW Steel Limited, ML No. 0005 (Old ML No. 2313), Malagolla Village, Sandur Taluk, Ballari District- reg.

Ref:
1. Combined consent issued by the Board Office vide order No. AW-304761 dated 04.01.2018
2. Mine Lease Deed renewal issued by the Department of Mines and Geology, GoK on 17.03.2018

The Board has issued Consent for Operation which is valid for the period up to 22.12.2018 to M/s. Nandi Iron Ore Mines of M/s. JSW Steel Limited, ML No. 0005 (Old ML No. 2313), Malagolla Village, Sandur Taluk, Ballari District in an area of 21.03 Ha, co-terminus with Mine Lease.

The industry vide their letter cited at reference (3) has requested the Board for issue of extension of CFO for five years and also has submitted the Mine lease copy which is extended for the period up to 16.03.2068 vide Department of Mines and Geology, GoK order dated 17.03.2018. Regional Officer, Bellary inspected the mine on 18.12.2018 and recommended for extension of validity up to 30.06.2021 vide ref (4).

In view of the above, the subject was placed before CCM held on 11.01.2019 and 14.01.2019 and the committee has recommended to extend the validity of Consent issued under Water & Air Acts for the period from 22.12.2018 to 30.06.2021 with earlier consent conditions vide ref (1).
Hence, the following order.

ORDER

CONSENT is hereby granted under the provision of the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 and the Rules and Orders made there under to M/s. Nandi Iron Ore Mines of M/s. JSW Steel Limited for mining of Iron ore Mining of capacity 0.408 MTPA, in an area of 21.03 Hectares as per the Mine lease deed renewal, at ML No. 0005 (Old ML No. 2313), Malagolla Village, Sandur Taluk, Ballari District for the period from 22.12.2018 to 30.06.2021.

All other terms and conditions of the consent order issued vide ref (1) remains unaltered and shall be complied with.

FOR AND ON BEHALF OF
KARNATAKA STATE POLLUTION CONTROL BOARD

[Signature]
SENIOR ENVIRONMENTAL OFFICER

To:

The Occupier,
M/s. Nandi Iron Ore Mines of M/s. JSW Steel Limited
U-607, 6th Floor, East Wing,
Raheja Towers, MG Road,
Bengaluru – 560 001
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, 30/03/2017
3. Proceedings of the CCM dated 23/12/2017, held on 19/12/2017

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 confirming 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 (Nandi-Hothur Mines)
Address: ML No. 2313, Malagolla Village, Sandur Tq, Ballari Dt.
Industrial Area: Not In IA, Malagolla,
Taluk: Sanduru,
District: Bellary

CONDITIONS:

a) Discharge of effluents under the Water Act:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Water Code</th>
<th>WC(KLD)</th>
<th>WWG(KLD)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Domestic Purpose</td>
<td>5.000</td>
<td>4.000</td>
<td>Domestic sewage is discharged to Septic tank &amp; Soak pit</td>
</tr>
<tr>
<td>2</td>
<td>Spray in Mines</td>
<td>200.000</td>
<td>0.000</td>
<td>Water is used for Dust suppression and Gardening purposes.</td>
</tr>
</tbody>
</table>

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

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:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Product Name</th>
<th>Applied Qty/Month</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Iron Ore</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Iron Ore Mining of capacity 0.408MMTPA/As CEC</td>
<td>34000.000</td>
<td>TON</td>
</tr>
</tbody>
</table>

This consent is valid for the period from 30/03/2017 to 22/12/2018

For and on behalf of the Karnataka State Pollution Control Board

SHIVALINGE GOWDA KN - CHIEF/SENIOR ENVIRONMENTAL OFFICER

To,
Jsw Steel Limited (Nandi-Hothur Mines)
Mining Office, Vijayanagara
Works, Toranagallu, Sandur
Tq.
COPY TO:
The Environmental Officer, KSPCB, Regional Office Bellary for information and necessary action.

2. Master Register.

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 confirm 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.
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.
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:

For and on behalf of the Karnataka State Pollution Control Board

SHIVALINGE GOWDA KN - CHIEF/SENIOR ENVIRONMENTAL OFFICER

<table>
<thead>
<tr>
<th>Chi. N.o.</th>
<th>Chimney attached to</th>
<th>Capacity/ KVA Rating</th>
<th>Minimum chimney height to be provided above ground level (in Mts)</th>
<th>Constituents to be controlled in the emission</th>
<th>Tolerance limits mg/NM3</th>
<th>Fuel</th>
<th>Air pollution Control equipment to be installed, in addition to chimney height as per col.(4)</th>
<th>Date of which air pollution control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fugitive Emission</td>
<td>IOC&amp;Screen - 250TPH</td>
<td>0</td>
<td>PM(mg/NM3), SO2 (PPM), NOx (PPM)</td>
<td>SPM</td>
<td></td>
<td>Before commissioning.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>D.G. Sets</td>
<td>500 KVA</td>
<td>7</td>
<td>PM(mg/NM3), SO2 (PPM), NOx (PPM)</td>
<td>75,36,710</td>
<td>DIE</td>
<td>AEC</td>
<td>Before commissioning.</td>
</tr>
</tbody>
</table>

Note:
AEC : Accoustic Enclosures
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.

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

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.
ANNEXURE-III

Fugitive Emission Standards

| Particulate Matter | 1200 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:

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

**Effluent Standards**

<table>
<thead>
<tr>
<th></th>
<th>5.5-9.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
</tr>
<tr>
<td>Suspended solids (non-rainy day)</td>
<td>50 mg/l</td>
</tr>
<tr>
<td>Suspended Solids (rainy day)</td>
<td>100 mg/l</td>
</tr>
<tr>
<td>Oil &amp; grease</td>
<td>10 mg/l</td>
</tr>
</tbody>
</table>

**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.

[Signature]

**SENIOR ENVIRONMENTAL OFFICER**
# ANNEXURE-IV
NATIONAL AMBIENT AIR QUALITY STANDARDS

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Time Weighted Average</th>
<th>Concentration in Ambient Air</th>
<th>Ecologically sensitive area (Notified by Central Government)</th>
<th>Method of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphur Dioxide (SO₂)</td>
<td>Annual* 24 Hours**</td>
<td>50 μg/m³ 80 μg/m³</td>
<td>20 μg/m³ 80 μg/m³</td>
<td>Improved West and Gacke method. Ultraviolet fluorescence.</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO₂)</td>
<td>Annual* 24 Hours**</td>
<td>40 μg/m³ 80 μg/m³</td>
<td>30 μg/m³ 80 μg/m³</td>
<td>Modified Jacob &amp; Hochheiser (Na-Arsenite) Method. Chemiluminescence.</td>
</tr>
<tr>
<td>Particulate Matter (Size less than 10 μm) or PM₁₀</td>
<td>Annual* 24 Hours**</td>
<td>60 μg/m³ 100 μg/m³</td>
<td>60 μg/m³ 100 μg/m³</td>
<td>Gravimetric. TOEM. Beta attenuation</td>
</tr>
<tr>
<td>Particulate Matter (Size less than 2.5 μm) or PM₂.₅</td>
<td>Annual* 24 Hours**</td>
<td>40 μg/m³ 60 μg/m³</td>
<td>40 μg/m³ 60 μg/m³</td>
<td>Gravimetric. TOEM. Beta attenuation</td>
</tr>
</tbody>
</table>

* 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
ANNEXURE-V

**Note:** The Project Proponent M/s. JSW Steels Ltd., of Nandi Hothur Mines have submitted following documents:

2. IBM approval issued by GoI in the name of M/s. JSW Steel Ltd., vide order No. 279/1089/2017/BNG, dated:16.02.2017.
3. Existing Mine Lease of ML No. 2313 is valid for the period up to 22.10.2018.

The issue of consent for operation with respect to M/s. JSW Steels Ltd., of Nandi Hothur Mines located at ML No.2313, Malagola village, Sandur Taluk, Bellary District was deliberated in the Consent Committee meeting held on 24.05.2017. The committee after detailed deliberations recommended to issue CFO with the following conditions based on legal opinion:

1. The project proponent shall not carry out mining operations within 6Km radius of Sri.Kumarswamy Temple and Sri Parvathi Temple which is defined as CORE AREA/ CONCESSION area till the receipt of the report of the committee dated:26.04.2011 appointed by Supreme Court of India, and with respect to BUFFER ZONE (after One kilometre from the temple) it may be permitted with controlled blasting or without controlling blasting by using Rippel Dozer/Rock Breaker or any other machinery and taking adequate measures towards generation, propagation, suppression and depositions of airborne dust.

This Consent is issued for iron ore mining of capacity 0.408MTPA (as per CEC letter dtd:18.01.2017) and CFO is valid for the period up to 22.12.2018 (co-terminus with the validity of Mine Lease) only with the above mentioned conditions. This Consent is issued as per the recommendations of Consent Committee Meeting and after the approval from the Member Secretary and Chairman of KSPCB.

**SENIOR ENVIRONMENTAL OFFICER**

[Signature]

29/12