By Speed Post


# STATE POLLUTION CONTROL BOARD, ODISHA

[DEPT., OF FOREST ENVIRONMENT & CLIMATE CHANGE, GOVT. OF ODISHA]
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## CONSENT ORDER

No. 531 / **IND-I-CON-5440** Dt. 09.01.2024

Sub : **Consent to operate under section 21 of Air (P&CP) Act, 1981, under section 25 of Water (P&CP) Act, 1974.**

Ref : Your online application **ID No. 4564752 , Dtd. 29.12.2022**
& Your letter No. TSL/SPCB/BS-03/2023-19/374, dtd. 25.9.2023

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to

Name of the Industry **M/s. TATA STEEL LTD.**

Name of the Occupier & Designation **Thachat Viswanath Narendran, CEO & MD**

Address: **At-Narendrapur, PO– Kusupanga, Via – Meramandali, Dist:Dhenkanal - 759121**

**This consent order is valid upto 31.3.2025**

This consent order is valid for the product quantity, specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.

### A. Details of Products Manufactured

| Sl. No. | Product / Plant Facilities | Quantity |
|---|---|---|
| 1. | Laddle Refining Furnace (increase from 3 x 180 T/Heat to 3 x 190 T/Heat) | 3 x 190 T/Heat |

**B. Discharge permitted through the following outlet subject to the standard**

| Outlet No. | Description of outlet | Point of discharge | Quantity of discharge KLD or KL/hr | Pre-scribed Standard | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | Cooling Blow down | To be recycled | -- | | | | | |

**C. Emission permitted through the following stack subject to the prescribed standard .**

| Chimney Stack No. | Description of Stack | Stack height (m) | Quantity of emission ($m^3$/hr) | Prescribed Standard (mg/$Nm^3$) |
|---|---|---|---|---|
| Stack attached to | | | | PM |
| 1. | Bag Filter of SMS-II of FES-I | 65 | 16,78,000 | 100 |
| 2. | Bag Filter of SMS-II of FES-II | 65 | 16,78,000 | 100 |

**D. Disposal of solid waste permitted in the following manner**

| Sl. No | Type of Solid waste | Quantity generated (TPD) | Quantity to be reused on site(TPD) | Quantity to be reused off site(TPD) | Quantity dispose d off (TPD) | Description of disposal site. |
|---|---|---|---|---|---|---|
| 1. | Slag from LRF | -- | -- | -- | -- | After recovery of metal slag shall be used partly in sinter plant and balanced is used for low land filling and road making. |

**E. GENERAL CONDITIONS**

1. The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
2. The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / and products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control

equipment / system etc.

3. The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. . In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.
5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
9. An inspection book shall be opened and made available to Board's Officers during their visit to the factory.
10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
11. Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been taped by the consumer for utilization for any purposes whatsoever.
12. Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
    a) Industrial cooling, spraying in mine pits or boiler feed,
    b) Domestic purpose
    c) Process
13. The applicant shall display suitable caution board at the lace where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
14. Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
15. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
18. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
21. The sludge generated from treatment units shall be dried in sludge drying beds and the drained

liquid shall be taken to equalization tank of treatment plant.

22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.
24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.
25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner to the meet the prescribed standards by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
28. The stack and ambient monitoring system installed by the applicant shall be opened for inspection to this Board at any time.
29. There shall not be any fugitive or episodal discharge from the premises.
30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurrence.
33. The industry has to ensure that minimum three varieties of indigenous species of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as no to cause fugitive emission, dust problems through leaching etc., of any kind.
35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
    i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
    ii) Controlled incineration, wherever possible in case of combustible organic material.
    iii) Composting, in case of bio-degradable material.
36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of

being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.

38. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.

39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.

40 Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.

41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.

42. The industry shall comply to all the conditions stipulated under Charter on Corporate Responsibility for Environmental Protection (CREP) guidelines in a time bound manner as envisaged there in. (if applicable)

43. The industry shall comply to the conditions stipulated in CTE order issued by ODISHA State Pollution Control Board.

44. The industry shall abide by E(P) Act, 1986 and Rules framed there-under

45. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the adequate amount within the period stipulated by the Board the consent order will be revoked without prior notice.

46. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate

## GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).

1. The applicant shall analyse the effluent / emissions and Ambient Air Quality every month through approved laboratory for the parameters indicated in TABLE- 'B', 'C' & Part -'B' as mentioned in this order and shall furnish the report thereof to the Board on monthly basis.
2. The following information shall be forwarded to the Member Secretary on or before 10th of every month.
   a) Performance / progress of the treatment plant.
   b) Monthly statement of daily discharge of domestic and/or trade effluent.
3. Non-compliance with effluent limitations

a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
   i) Causes of non-compliance
   ii) A description of the non-compliance discharge including its impact on the receiving waters.
   iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
   iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
   v) Steps to be taken by the applicant too prevent the condition of non-compliance.

b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.

4. Proper housekeeping shall be maintained inside the factory premises including process areas by a dedicated team.
5. The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.
6. The industry shall engage dedicated qualified manpower to ensure continuous and effective operation of online stack / Ambient Air Quality / Effluent monitoring stations for maintenance of database, real time data transfer to SPCB server, data analysis and co-ordination with concerned personnel of process units for taking corrective measures in case of non-compliances and to respond to the instructions of SPCB in this matter.

## F) SPECIAL CONDITIONS (APC & WPC)

1. The unit shall comply the conditions stipulated in CTE Order issued vide letter No. 2204, dtd. 15.02.2023 and No Increase in Pollution Load Certificate vide letter No. 886, dtd. 20.01.2022 for increase in production of Laddle Refining Furnace from 3 x 180 T/Heat to 3 x 190 T/Heat.
2. The unit shall achieve the increasing production capacity of LRF from 3 x 180 T/Heat to 3 x 190 T/Heat by enhancement of carrying capacity.
3. The unit shall operate the bag filter attached to LRF so that Particulate Matter Emission meet prescribed standard as prescribed in Table-'C'.
4. The cooling water from LRF shall be completely recycled in a closed loop.
5. The slag generated from LRF shall be processed in metal recovery plant and after recovery of metal the slag shall be partly used in sinter plant and balance shall be used for low land filling and road making.
6. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/stipulate additional conditions as deemed appropriate.
7. The ambient air quality shall confirm to the National Ambient Air Quality standard as per the notification of MoEF dated 16 Nov 2009 (Annexed).

## G. ADDITIONAL CONDITIONS

i. Dust accumulation over the internal roads inside the plant shall be immediately cleaned.
ii. The industry shall increase the frequency of operation of 9 nos. of mechanical road sweeping machines over all the internal roads within the plant premises and maintain a logbook of the same for verification to maintain the ambient air quality standard w.r.t. $PM_{10}$ within the prescribed norms.

*The occupier must comply with the conditions stipulated in section A,B,C,D,E, F & G to keep this consent order valid.*

**To**

**The CEO & MD,**
**M/s Tata Steel Limited,**
**At-Narendrapur, PO– Kusupanga,**
**Via – Meramandali, Dist:Dhenkanal - 759121**

**Encl : As above**

**MEMBER SECRETARY**
**STATE POLLUTION CONTROL BOARD, ODISHA**

Memo No. 532 dt. 09.01.2024

*Copy forwarded to;*

i) Regional Officer, State Pollution Control Board, Angul
ii) District Collector, Dhenkanal
iii) Director of Mines, Odisha, Bhubaneswar
iv) Director Factories and Boiler, Bhubaneswar
v) Consent Register / HWM Cell, Head Office, Bhubaneswar

09/1/24

**CHIEF ENV. ENGINEER**
**STATE POLLUTION CONTROL BOARD, ODISHA**

# General Standards for discharge of environment pollutants
## PART-A: EFFLUENTS

| Sl.No. | Parameters | Standards | | | |
|---|---|---|---|---|---|
| | | Inland surface | Public sewers | Land for irrigation | Marine Costal Areas |
| | | (a) | (b) | (c) | (d) |
| 1. | Colour & odour | Colourless/Odourless as far as practible | ------ | See 6 of Annex-1 | See 6 of Annex-1 |
| 2. | Suspended Solids (mg/l) | 100 | 600 | 200 | For process wastewater – 100<br>b. For cooling water effluent 10% above total suspended matter of influent. |
| 3. | Particular size of SS | Shall pass 850 | ----- | ------ | |
| 5. | pH value | 5.5 to 9.0 | 5.5 to 9.0 | 5.5 to 9.0 | 5.5 to 9.0 |
| 6. | Temperature | Shall not exceed $5^0$C above the receiving water temperature | ------- | -------- | Shall not exceed $5^0$C above the receiving water temperature |
| 7. | Oil & Grease mg/l max. | 10 | 20 | 10 | 20 |
| 8. | Total residual chlorine | 1.0 | ---- | ------ | 1.0 |
| 9. | Ammonical nitrogen (as N) mg/l max. | 50 | 50 | ------ | 50 |
| 10. | Total Kajeldahl nitrogen (as $NH_3$) mg/1 max. | 100 | ---- | ------ | 100 |
| 11. | Free ammonia (as $NH_3$) mg/1 max. | 5.0 | ---- | ------ | 5.0 |
| 12. | Biochemical Oxygen Demand (5 days at ($20^0$C) mg/1 max. | 30 | 350 | 100 | 100 |
| 13. | Chemical Oxygen Demand, mg/1 max. | 250 | ---- | ------ | 250 |
| 14. | Arsenic (as As) mg/1 max. | 0.2 | 0.2 | 0.2 | 0.2 |
| 15. | Mercury (as Hg) mg/1 max. | 0.01 | 0.01 | ------ | 0.001 |

| | | | | | |
|---|---|---|---|---|---|
| 16. | Lead (as pb) mg/1 max. | 01. | 1.0 | ------ | 2.0 |
| 17. | Cardmium (as Cd) mg/1 max. | 2.0 | 1.0 | ------ | 2.0 |
| 18. | Hexavalent Chromium (as Cr + 6) mg/l max. | 0.1 | 2.0 | -------- | 1.0 |
| 19. | Total Chromium (as Cr) mg/l max. | 2.0 | 2.0 | --------- | 2.0 |
| 20. | Copper (as Cu) mg/l max. | 3.0 | 3.0 | --------- | 3.0 |
| 21. | Zinc (as Zn) mg/l max. | 5.0 | 15 | --------- | 15 |
| 22. | Selenium (as Sc) mg/l max. | 0.05 | 0.05 | --------- | 0.05 |
| 23. | Nickel (as Nil) mg/l max. | 3.0 | 3.0 | --------- | 5.0 |
| 24. | Cyanide (as CN) mg/l max. | 0.2 | 2.0 | 0.2 | 0.02 |
| 25. | Fluoride ( as F) mg/l max. | 2.0 | 15 | --------- | 15 |
| 26. | Dissolved Phosphates (as P) mg/l max. | 5.0 | ------- | --------- | -------- |
| 27. | Sulphide (as S) mg/l max. | 2.0 | -------- | --------- | 5.0 |
| 28. | Phennolic compounds as ($C_6H_5OH$) mg/l max. | 1.0 | 5.0 | --------- | 5.0 |
| 29. | Radioactive materials<br>a. Alpha emitter micro curle/ml.<br>b. Beta emitter micro curle/ml. | <br>$10^7$<br>$10^6$ | <br>$10^7$<br>$10^6$ | <br>$10^8$<br>$10^7$ | <br>$10^7$<br>$10^6$ |
| 30. | Bio-assay test | 90% survival of fish after 96 hours in 100% effluent | 90% survival of fish after 96 hours in 100% effluent | 90% survival of fish after 96 hours in 100% effluent | 90% survival of fish after 96 hours in 100% effluent |
| 31 | Manganese (as Mn) | 2 mg/l | 2 mg/l | --------- | 2 mg/l |
| 32. | Iron (Fe) | 3 mg/l | 3 mg/l | --------- | 3 mg/l |
| 33. | Vanadium (as V) | 0.2 mg/l | 0.2 mg/l | --------- | 0.2 mg/l |
| 34. | Nitrate Nitrogen | 10 mg/l | -------- | --------- | 20 mg/l |

## PART- B:NATIONAL AMBIENT AIR QUALITY STANDARDS

| Sl. No. | Pollutants | Time Weighed Average | Concentrate of Ambient Air | | |
|---|---|---|---|---|---|
| | | | Industrial Residential, Rural and other Area | Ecologically Sensitive Area (notified by Central Government) | Methods of Measurement |
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. | Sulphur Dioxide ($SO_2$), $\mu g/m^3$ | Annual * | 50 | 20 | -Improved west and Gaeke |
| | | 24 Hours ** | 80 | 80 | - Ultraviolet fluorescence |
| 2. | Nitrogen Dioxide ($NO_2$), $\mu g/m^3$ | Annual * | 40 | 30 | - Modified Jacob & Hochheiser ( Na-Arsenite) |
| | | 24 Hours ** | 80 | 80 | - Chemiluminescence |
| 3. | Particulate Matter (size less than 10µm) or $PM_{10}\mu g/m^3$ | Annual * | 60 | 60 | -Gravimetric<br>- TOEM |
| | | 24 Hours ** | 100 | 100 | - Beta Attenuation |
| 4. | Particulate Matter (size less than 2.5µm) or $PM_{2.5}$ $\mu g/m^3$ | Annual * | 40 | 40 | -Gravimetric<br>- TOEM |
| | | 24 Hours ** | 60 | 60 | - Beta Attenuation |
| 5. | Ozone ($O_3$) $\mu g/m^3$ | 8 Hours ** | 100 | 100 | - UV Photometric<br>- Chemiluminescence |
| | | 1 Hours ** | 180 | 180 | - Chemical Method |
| 6. | Lead (Pb) $\mu g/m^3$ | Annual * | 0.50 | 0.50 | -AAS/ICP method after sampling on EMP 2000 or equivalent filter paper.<br>- ED-XRF using Teflon filter |
| | | 24 Hours ** | 1.0 | 1.0 | |
| 7. | Carbon Monoxide (CO) $mg/m^3$ | 8 Hours ** | 02 | 02 | - Non Dispersive Infra Red (NDIR) Spectroscopy |
| | | 1 Hours ** | 04 | 04 | |
| 8. | Ammonia ($NH_3$) $\mu g/m^3$ | Annual* | 100 | 100 | -Chemiluminescence<br>- Indophenol Blue Method |
| | | 24 Hours** | 400 | 400 | |
| 9. | Benzene ($C_6H_6$) $\mu g/m^3$ | Annul * | 05 | 05 | -Gas Chromatography based continuous analyzer<br>- Adsorption and Desorption followed by GC analysis |
| 10. | Benzo (a) Pyrene (BaP)-Particulate phase only, $ng/m^3$ | Annual* | 01 | 01 | -Solvent extraction followed by HPLC/GC analysis |
| 11. | Arsenic (As), $ng/m^3$ | Annual* | 06 | 06 | -AAS/ICP method after sampling on EPM 2000 or equivalent filter paper |
| 12. | Nickel (Ni),$ng/m^3$ | Annual* | 20 | 20 | -AAS/ICP method after sampling on EPM 2000 or equivalent filter paper |

** Annual arithmetic mean of minimum I04 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 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.