

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
ORIGINAL APPLICATION NO.70 OF 2026 / EZ**

Dillip Kumar Samantaray

...Applicant

VERSUS

JSW Utkal Steel Limited & Ors.

...Respondents

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By the Respondent No.8

Through

Kolkata
Date:

Sri Dipanjan Ghosh,
Advocates for the Respondent No.8
(State Pollution Control Board, Odisha)
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Phone No.:990308097

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA

23 JUN 2026

ORIGINAL APPLICATION NO.70 OF 2026 / EZ

Dillip Kumar Samantaray

...Applicant

VERSUS

JSW Utkal Steel Limited & Ors.

...Respondents

**AFFIDAVIT ON BEHALF OF THE STATE
POLLUTION CONTROL BOARD, ODISHA,
R.NO.8**

I, Dr. Manoj V. Nair, IFS, son of N. Vasudevan Nair aged around 52 years, at present working as Member Secretary, State Pollution Control Board, having my office at Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, P.O. Nayapalli, Bhubaneswar, Dist – Khurda, Odisha-751012, do hereby solemnly affirm and state as under:

1. That I am the Member Secretary of the Respondent No.8 Board and, as such, am well-acquainted with the facts and circumstances with the case and competent to swear this affidavit.



2. That the applicant has filed the OA for necessary orders from the Hon'ble Tribunal to the State and Central Govt. authorities for cancellation of environmental clearance issued by the MoEF&CC (R-10) in favour of M/s. JSW Utkal Steel Ltd (R-1) vide Annexure-2 of the OA as well as NOC for ground water issued in favour of the R-1 by the R-6. It is further alleged that the R-1 has digging borewell and tubewell and started extracting ground water in violation of the conditions impugned in the Environmental Clearance order.
3. That it is humbly submitted that no specific allegation has been made against the R-8 Board. The R-8 Board has granted Consent to Establish (CTE) under the provisions of Sec-25 of the Water (PCP) Act, 1974 and Sec-21 of the Air (PCP) Act, 1981 to the R-1 for setting up green field integrated steel plant of capacity 4.5MTPA hot metal (4.15 MTPA crude steel) with 5 MTPA cement grinding unit and 300 MW Captive Power Plant (Phase-1 of 13.2. MTPA ultimate capacity ISP project) vide Board's order No.780 dtd.18.01.2024. A copy of Consent to Establish



order dtd.18.01.2024 is annexed to this affidavit and marked as ANNEXURE-R8/1.

4. That the R-8 Board has also accorded Consent to Establish in favour of R-1 under the provisions of Sec-25 of Water (PCP) Act, 1974 and Sec-21 of the Air (PCP) Act, 1981 for expansion of Integrated Steel Plant (phase-2) from 4.5MTPA to 9 MTPA hot metal for the following plant facility indicated in the CTE order No.5360 dtd.08.04.2026. A copy of the CTE Order dtd.08.04.2026 is annexed to this affidavit and marked as ANNEXURE - R8/2.

5. That further CTE has been granted by the R-8 Board to the R-1 for setting all weather multi-cargo green field captive jetty of handing capacity 52 MTPA on the river bank of Jatadhari near Jatadhari Muhan adjacent to Integrated Steel Plant (ISP) of R-1 with a project cost of Rs.2054.32 crores over Acre-170.0 dcml at village Jatadhari, Tahasil-Ersama in the district of Jagatsinghpur vide CTE order No.5828 dtd.19.04.2024. A copy of the

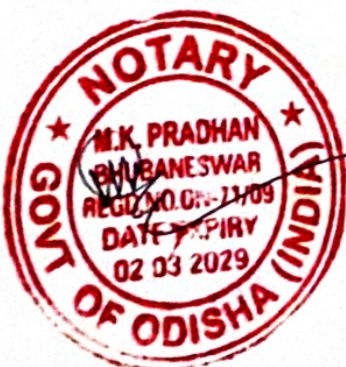


CTE order dtd.19.04.2024 is annexed to this affidavit and marked as ANNEXURE - R8/3.

6. That the records available with the R-8 Board reveals that the R-1 has obtained clearance from Central Ground Water Authority (R-7) for drawal of ground water from the 3 nos. of tube wells (95M³/day) at the plant site and 2 nos. of tube wells 98 M³/day at their office situated at Paradeep. Additionally the captive jetty site of R-1 has obtained clearance from R-7 for 3 nos. of tube wells (93M³/day) at jetty site.

That apart the drawal of ground water and digging of bore well is coming under the purview of R-7 and the R-8 Board has no further comments to offer in this matter.

7. That it is humbly submitted that the R-1 unit is in construction phase and its environmental compliance during construction is duly verified by the R-8 Board.
8. That the Respondent No.8 Board craves leave of this Hon'ble Tribunal to file further affidavit if required for proper adjudication of this case.



MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
 REGD. NO. ON-71/2009
 PH-9437627119 (M)

9. That the Annexures annexed to the present affidavit are true and correct copies of their originals.
10. That the contents of the above paragraphs are true and correct to the best of my knowledge, as derived from the official records, and that nothing material has been concealed therefrom.

M.K.P.
DEPONENT
 Member Secretary
 State Pollution Control Board
 Odisha, Bhubaneswar

VERIFICATION:

I, the above named deponent, do hereby verify that the contents of the above affidavit are true and correct to the best of my knowledge, as derived from official records, and that nothing material has been concealed therefrom.

Verified at Bhubaneswar on this the 23rd day of June,

2026.

SWORN BEFORE ME



MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
 REGD. NO. ON-71/2009
 PH-9437627119 (M)

M.K.P.
DEPONENT
 Member Secretary
 State Pollution Control Board
 Odisha, Bhubaneswar

23/06/26

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STATE POLLUTION CONTROL BOARD, ODISHA

Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII
Bhubaneswar - 751 012

By Speed Post/ through online

No. 780 /

IND-II-CTE-7088

Date: 18.01.2024

CONSENT TO ESTABLISH ORDER

In consideration of the **online application no. 4790913** for grant of Consent to Establish of **M/s JSW Utkal Steel Limited** for setting up **GREEN FIELD INTEGRATED STEEL PLANT OF CAPACITY 4.5 MTPA Hot Metal (4.15 MTPA Crude Steel)** with 5 MTPA Cement Grinding Unit and 300 MW Captive Power Plant, **(PHASE-I OF 13.2 MTPA ULTIMATE CAPACITY ISP PROJECT)** the State Pollution Control Board is pleased to convey its Consent to Establish under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 for the following plant facilities:

SI No	Plant Configuration	Design Capacity with Module	Production Capacity
1	Slurry Dewatering System	30 MTPA	30 MTPA
2	Pellet Plant	2x8.0 MTPA	16 MTPA
3	Coke Oven	4x62 Ovens	3 MTPA
4	Sinter Plant	1x500 SQM	5.775 MTPA
5	Blast Furnace	1x5350 M ³	4.5 MTPA
6	Steelmaking-SMS-1		
	BOF	2x350 T	4.27 MTPA
	LF	2x350 T	4.27 MTPA
	RH	1x350 T	1.7 MTPA
	Slab Caster	2x2 Strand	4.15 MTPA (Crude Steel)
7	HSM	1x5.5 MTPA	4.1 MTPA
8	CRM-1 Complex		
	PLTCM	1x2.3 MTPA	
	CGL	2x0.5 MTPA	
	CAL	1x1.0 MTPA	
	RCL	2x0.25 MTPA	
	CCL	2x0.25 MTPA	
	Tinplate	1x0.25 MTPA	
9	Silicon Steel CRNO	1x0.25 MTPA	0.247 MTPA
10	Calcined Lime Plant	2x600 TPD	0.307 MTPA
11	Calcined Dolo Plant	1x600 TPD	0.042 MTPA
12	Portland Slag Cement Plant	1x3.75 MTPA	3.75 MTPA
13	Pozzolona Portland Cement Plant	1x1.25 MTPA	1.25 MTPA

14	Captive Power Plant	1x300 MW	
15	Oxygen Plant	2x2100 TPD	
16	Construction Facilities		
	Batching Plant	4x60 cu m/day	
	DG Sets	10x500 kVA	5MVA
	Construction & Storage Yards	4* Yards	

With project cost of ₹28155.5 Crores over an area of 2780.63 Acs at Villages of Polang, Bayanala kandha, Gobindapur, Dhinkia, Nuagaon and Jatadhar of Ersama Tehsil, (Plot No and Khata Nos as mentioned in the application form) in the district of Jagatsingpur Odisha with the following conditions.

GENERAL CONDITIONS:

01. This Consent to establish is valid for the raw materials, product, manufacturing process and capacity mentioned in the application form. This order is valid for five years, which means the proponent shall commence construction of the project within a period of five years from the date of issue of this order. If the proponent fails to do substantial physical progress of the project within five years then a renewal of this consent to establish shall be sought by the proponent.
02. The industry shall comply to the provisions of Environment Protection Act, 1986 and the rules made there under with their amendments from time to time such as the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 as amended from time to time, Hazardous Chemical Rules, / Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 etc. and amendments there under. The industry shall also comply to the provisions of Public Liability Insurance Act, 1991, if applicable.
03. The industry is to apply for grant of Consent to operate under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board.
04. **This consent to establish is subject to statutory and other clearances from Govt, of Odisha and/or Govt, of India, as and when applicable.**

SPECIAL CONDITIONS:

A. GENERAL:

1. The proponent shall carryout construction activity of the Integrated Steel Plant as per Environmental Clearance granted by MoEF&CC, Govt. of India vide EC Identification No.EC22A008OR135518, dated 11th¹ Apr 2022 and recommended and EC conditions after re-validation of the environmental clearance F.No. IA-J-11011/524/2017-IA-II(I) dated 15th Sep 2023.
2. The proponent shall comply with the all the conditions imposed in EC vide File No. IA-J-11011/524/2017-IA-II(I), dated 15.09.2023 for revalidation of EC for setting up green field

integrated steel plant of 13.2 MTPA capacity with 10 MTPA cement grinding and 900 MW captive power plant.

3. The proponent shall obtain CRZ Clearance from the competent authority for any part of the project if applicable.
4. The proponent shall obtain Forest Clearance is applicable.
5. The proponent shall apply for Consent to Establish under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 for Phase-II and Phase-III respectively as per Implementation schedule for the Phase-I (0 to 3 Yrs); Phase-II (2 to 6 Yrs) and Phase-III (3 to 7 Yrs) of Project Report.
6. The proponent shall take steps for following road map for decarbonization for ambitious target of achieving specific carbon emission target of 1.95 tCO₂ by 2030 and 1.17 t CO₂ by 2050 which have been derived based on International Energy Agency (IEA) Sustainable Development Scenario (SDS). On commissioning the production facilities, JSWUSL will be integrated with JSW Steel, and these targets will be applicable to JSWUSL as well.

Sl. No.	Proposed Initiatives	JSWUSL
1	Transition to Renewable Energy	JSW Steel has started implementing the use of renewable in steel making. This aspect will be examined for JSWUSL after commissioning of the project.
2	Increased Usage of Scrap	JSWUSL will evaluate the possibility of using scrap in steel making, subject to its availability from market.
3	Process and Energy Efficiency	Post commissioning and stabilizing of the project, JSWUSL will participate in World steel Benchmark Program named Step Up, to identify opportunities to increase process and energy efficiencies.
4	Green Hydrogen Technology	JSW Steel is planning a pilot project to demonstrate the feasibility of green hydrogen usage in DRI production. JSWUSL will evaluate the possibility of using green hydrogen in future.
5	Carbon Capture, Usage and Storage	Presently at the development stage, many steel companies including JSW Steel are exploring the application of CCUS technology (capture and usage focus) in their operations. JSWUSL will evaluate the possibility of this technology in their operation.

7. The proponent shall comply with stipulation of SPA Guidelines as mentioned in EAC Proceedings dated 7th June 2023-part of revised EC dtd. 15th September 2023 and in line with the action plan of OSPCB for PIA (July 2020).
8. The unit shall abide by policy guidelines for establish/expansion of sponge iron plant in the State issued by Steel & Mines Department., Govt. of Odisha vide letter no. S. R. O. No. 157/2015, dated 02.05.2015 if applicable.
9. The industry shall obtain Forest Clearance for the Forest land involved in the project.
10. The proponent shall provide temporary storage space for storage of solid and Hazardous waste before final disposal. The Hazardous and E-waste shall be stored under covered shed on concrete floor.

11. This Consent to Establish is granted for the capacity as mentioned above and any expansion in the capacity, change or modification in the process, addition, alternation of any nature has to be undertaken with prior approval of the Board. For any change in the site or area, fresh Consent to Establish has to be obtained from the Board. The proponent shall carry out construction activity as per approved revised lay out map (enclosed). If the proponent wants to change the approved plant layout map, they can submit a modified plant layout map with adequate justification for such modification.
12. The proponent shall earmark the Greenbelt / Green area, Solid, Hazardous and other Waste storage area and ETP / STP area etc. as per the approved plant layout by putting display board at the time of construction work of the project to secure such land for environmental point of view without diverting the same for other purpose. Further, the industry shall earmark adequate area for surface run off treatment system at different locations inside the plant. Same shall be verified at the time of construction work by the Regional Officer and/or Head Office of SPCB.
13. The industry shall review conditions stipulated in Consent to Establish / Environmental Clearance and their implementation well in advance before applying for Consent to Operate.
14. The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of Environment Impact Assessment (EIA) report.
15. **The proponent shall obtain permission from Department of Water Resources, Govt. of Odisha for drawl of ground water and surface water.**
16. Good housekeeping practices shall be followed to improve the work environment. All roads and shop floors shall be cleaned regularly.
17. The construction and demolition waste to be generated from the proposed project shall be disposed of in accordance with the provision under "Construction & Demolition Wastes Management Rules 2016".
18. The proponent shall comply to the provisions of E-Waste (Management) Rules, 2016 and shall handover e-waste to authorized collection centers/ register dismantlers/ recyclers for proper disposal of e-waste.
19. The proponent shall comply with the provision made under Plastic Waste Management Rules, 2016 and amendment made thereafter and shall ensure prohibition on use of Single Use Plastics within the premises.
20. All the plastic waste generated from the premises shall be collected and sent for co-processing to the nearby cement kilns and / or registered recyclers under Plastic Waste Management Rules, 2016.
21. Monitoring of stack emissions, fugitive emissions, trade effluent and noise level shall be done as per CPCB regulations.
22. Green belt shall be developed over and area of 34% (383 Ha) of the plant area inside the plant and 85 Ha (7% of plant area) outside the plant area on the Government land at the cost of the Project Proponent. Tree density of 2500 trees per Ha shall be maintained. Necessary arrangements (MOU) shall be made with the State Govt. in this regard within six months. This land shall not be used for any purpose other than green belt by the industry. The selection of species will be in consultation with the State Forest Department, and forestry experts.

23. The industry shall also develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy along with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards the nearby villages, adjacent Protected & Reserved Forest and other Environmentally Sensitive Areas.
24. The civil construction shall be carried out with fly ash bricks. A statement indicating use of fly ash bricks during construction period shall be submitted to the Board quarterly for record.
25. The proponent shall provide full-fledged environmental management cell as per EIA report and the head of environmental management cell should report directly to the unit Chief Administrator (say M.D.).
26. The Board may impose further conditions or modify the conditions stipulated in this order during installation and /or at the time of obtaining consent to operate and may revoke this clearance in case the stipulated conditions are not implemented and / or any information suppressed in the application form.
27. The industry shall apply for grant of Consent to Operate under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board. No production activity shall commence prior to installation of all Pollution Control Measures.
28. No production activity shall commence prior to installation of all pollution control measures. In case, it is found that the plant is operating without installation of appropriate pollution control equipment (s) and without permission for trial operation from the Board, a direction of closure shall be issued u/s31-A of Air (PCP) Act, 1981 and u/s33-A of Water (PCP) Act, 1974 without any further notice in this regard.
29. Depending on the environmental condition, stricter standards may be imposed for the effluent or restriction for discharge may be made for which adequate facilities from the beginning shall be made to meet such situation in future.
30. The industry shall comply with the Environmental Protection Acts 1986 and Rules made there under as amended from time to time.

B. WATER POLLUTION:

31. A robust and full proof drainage conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented to protect natural streams passing through plant area. Industry shall also protect all water bodies adjacent/near to the plant boundary.
32. Out of the total water requirement is 3350 m³/hr for the initial phase of the plant, 1296 m³/hr shall be sourced from river Mahanadi and the balance water requirement shall be met through recycled/ treated water. Necessary permissions shall be obtained from the Competent Authority in this regard. The proponent shall obtain permission from the concerned authorities for drawl of surface water.
33. Under no circumstances, the unit shall use ground water for industrial purposes. Ground water level in the plant to be monitored every six months (once each in December / January and July / August) so as to keep track of the depletion of the ground water table.

34. 635 m³/hr wastewater to be generated from integrated steel plant shall be reused in process for maintaining ZLD.
35. The industry shall install individual Effluent Treatment Plants and Central Effluent Treatment Plant with estimated capacity as proposed in the Project Report for treatment of effluent from the respective process units as follows.
 - i. Capacity of CETP – 650 m³/hr
 - ii. BOD plant capacity – 130 m³/hr
 - iii. CRM ETP – 100 m³/hr
 - iv. SMS Caster ETP – 120 m³/hr
 - v. HSM Oil and Scale removal (Scale pit) – 110 m³/hr
36. The unit shall provide multi effect evaporation system for RO rejects for maintaining ZLD for the entire premises.
37. Wastewater generated from Pellet Plant, Blast Furnace, SMS, Rolling Mill, Coke Oven Plant etc. shall be completely recycled after treatment. The proponent shall construct a full-fledged ETP for treatment of wastewater generated from other plant facilities and shall be completely reused.
38. The proponent shall adopt Zero Liquid Discharge (ZLD) concept and under no circumstances the wastewater shall be discharged to outside the factory premises.
39. The wastewater stream of the Blow down, DM plant, Coke oven, Sinter plant, Blast furnace, SMS and Rolling mills shall be treated separately to confirm to the standard stipulated in this order. The treated wastewater shall be reused to the maximum possible extent and the balance will be treated via Central Effluent Treatment Plant (CETP).
40. The unit shall install online Continuous Effluent Quality Monitoring System (CEQMS) at the outlet of all Effluent Treatment Plants (ETP) for online real time data transmission through GPRS system to SPCB RTDAS server and upload data for use by CPCB.
41. Provision for online monitoring of Cyanide, Fluoride and Phenolic compound as phenol shall be provided at CEQMS of ETPs of Coke Oven and CRM.
42. There shall not be any discharge of phenolic wastewater from the catchment pit.
43. Cold Rolling Mill (CRM), color coating and galvanizing plants shall have separate CETP to treat and recycle the treated water from CRM complex. Sludge generated at CRM ETP shall be sent to CHWTSDf. The unit shall provide Acid Recovery Plant for recovery of spent acid in CRM.
44. The total water consumption including domestic use shall not be more than 5 m³/ton of steel for long products and 8 m³/ton steel for flat products.
45. The domestic wastewater generated from the industry shall be treated in sewage treatment plant of capacity 50 m³/hr within the plant premises to meet the following standards as notified by the MoEF&CC, Govt., of India vide G.S.R. 1265 (E), dated 13.10.2017. The treated water shall be reused for gardening and other compatible purpose. Under no circumstances there shall be any discharge of treated wastewater to outside the factory premises.

Sl. No.	Parameters	Standards
1.	pH	6.5-9.0
2.	BOD(mg/l)	30

3.	TSS(mg/l)	<100
4.	Fecal Coliform (MPN/100ml)	< 1000

46. The wastewater generated from leakages, dust suppression, blow down and DM plant shall be treated individually to meet the following prescribed standard of effluent discharge to inland surface water and stored in a common basin for utilization for plantation and green belt purposes inside the factory premises.

Parameters	Boiler Blow down	Cooling Tower Blow down	DM plant
pH	---	---	6.5 to 8.5
Suspended solids	100	---	100
Oil and grease	20	---	10
Copper (Total)	1.0	---	---
Iron (Total)	1.0	---	---
Free available Chlorine	---	0.5	---
Zinc	---	1.0	---
Chromium (Total)	---	0.2	---
Phosphate	---	5.0	---

N.B: Limiting concentration in mg/l except for pH.

47. The wastewater generated from various sections like coke oven, sintering plant, blast furnace, steel melting shop, rolling mill etc. shall conform to the following prescribed standards.

Parameters	Coke Oven	Sinter Plant	Blast Furnace	Steel Melting Shop	Rolling Mill
	Standards				
pH	6.0 to 8.5	6.0 to 8.5	6.0 to 8.5	6.0 to 8.5	6.0 to 9.0
Suspended Solids	100	100	50	100	100
BOD, 3 days at 27°C	30	---	10	---	---
COD	250	---	---	---	---
Oil and Grease	10	10	---	10	10
Ammonical Nitrogen as N	50	---	50	---	---
Cyanide as CN	0.2	---	0.2	---	---
Phenol	1.0	---	---	---	---

N.B: Limiting concentration in mg/l except for pH.

48. The treated effluent shall be recycled and reused in industry and/or used for water spraying or green belt development etc. the excess wastewater shall be collected in Central Effluent Treatment Plant (CETP).
49. The treated wastewater from the Central Effluent Treatment Plant (CETP) shall be utilized after meeting the following standard.

Parameters	Limiting concentration in mg/l except for pH
pH	5.5 to 9.0
Suspended solids	100
BOD, 3days, 27°C	30
COD	250
Oil & Grease	10
Ammonical Nitrogen as N	50
Cyanide as CN	0.2
Phenolic compound	1.0
Copper (Total)	3.0
Iron (Total)	3.0
Free available Chlorine	0.5
Zinc	5.0
Chromium (Total)	0.2
Phosphate	5.0

50. Greening and Paving shall be implemented in the open plant area to arrest soil erosion and dust pollution from exposed soil surface.
51. Storm water shall not be allowed to mix with effluent, scrubber water and / or floor washing and shall be channelized through separate drains as per natural gradient, passing through High Density Polyethylene (HDPE) lined pits, each having holding capacity of 10 minutes (hourly average) of rainfall.
52. Rainwater harvesting structure shall be developed inside the plant premises and maximum effort shall be made to reuse harvested rainwater, with a definite plan and program to reduce the drawl of fresh water from water bodies.
53. Appropriate structures shall be built within the premises so that the runoff during monsoon does not enter nearby water bodies directly. The proponent shall implement the surface runoff management study.
54. The proponent shall provide drains around coal storage area and all the stockpile area, followed by series of settling tanks to retain the solids, if any, damage and shall be connected to SRTS.
55. Surface runoff treatment system consisting of sedimentation through settling tanks/ ponds in series followed by high rate clarification through clarifloculator / tube settlers shall be installed to meet the discharge norms and shall be recycled / discharged specially during monsoon period.
56. The industry shall provide mechanized wheel washing system along with effluent treatment and recycling facilities for the raw material, product and solid waste transport vehicles at the exit point of the industry.

C. AIR POLLUTION:

57. Parking area for heavy vehicles shall be black topped to avoid fugitive dust emission during vehicle movement in the area.

58. The industry shall comply with the emission standards for Integrated Iron & Steel plant notified by the MoEF&CC, Govt, of India vide Gazette Notification No. G.S.R. 277(E) dt. 31.03.2012.
59. The proponent shall comply with the emission standards for Thermal Power Plant notified by the MoEF&CC, Govt, of India vide Gazette Notification No. G.S.R. 593 (E) dt. 30.06.2018 and amendments made thereafter from time to time.
60. The proponent shall comply with the guidelines with respect to discharge temperature (temperature differential < 5 deg C) and heat dissipation norms while designing outfall systems for once through sea water cooling system as approved by the MoEF & CC.
61. The emission standards issued by the MoEF &CC, Govt, of India vide G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May 2016 and 10th May, 2016 regarding cement plants with respect to particulate matter, SO₂ and NO₂ shall be complied with followed as hot gases from HAG will be vented through cement mill main stack.
62. Adequate air pollution control equipment shall be installed at all sources of emissions so as to meet the prescribed norms under the Environment Protection Act, 1986 particularly with respect to Thermal Power Plants, Blast Furnace, Sintering Plant, Material Handling Section, Coke Oven, Steel Melting Shop, Rolling Mill etc. Depending on the environmental conditions after operation of the plant or otherwise, stricter standards than prescribed under Environment Protection Act, 1986 shall be imposed. As such the industry right from the beginning shall select the best air pollution control equipment to achieve such norms as prescribed from time to time.
63. The industry has install adequate air pollution control devices for the plant facilities as proposed in the Project Report and the Particulate Matter emission levels from all the point sources shall be kept below 30mg/Nm³. Plant wise stack details are as follows.

Plant	Stack attached to	APCD	Proposed Stack Ht from GL (m)	No. of stacks
Pellet Plant	Indurating Furnace	ESP	120	1
	Plant dedusting system	Bag Filter	30	3
Sinter Plant	Sinter machine	ESP	120	1
	Plant dedusting system	Bag filter	80	1
Blast Furnace	Stock house	Bag filter	70	1
	Cast house	Bag filter	70	2
	Stove	--	90	1
BOF	Plant dedusting system	Bag filter	80	2
Coke Oven with CDQ and byproduct Plant	Battery	--	140	2
	Dedusting system	Bag filter	30	4
	Land base fume extraction system			
Calcination Plant	Kiln	Bag Filter	55	3
Hot Rolling Mill	Reheating furnace	--	70	3
Cold Rolling Mill	Continuous annealing line	Recuperative	60	1

		burner		
	Al Zn coating line	Recuperative burner	56	1
	Galvanizing line	Recuperative burner	56	1
	Color coating line	Recuperative burner	30	1
	Pickling line	Wet scrubber	30	1
	Cold rolling	--	30	1
	PLTCM	Scrubber	30	1
	Annealing line	Scrubber	30	1
	Coating line	Scrubber	30	1
	Galvanizing line fume	Scrubber	30	1
	ARP	Scrubber	30	1
Cement Plant	Cement Mill	Bag Filter	60	4
Power Plant (gas based)	Boiler	--	90	1

Plant/Section	No. of Stacks	Stack code	Height (m)	Estimated Gas Volume (Nm ³ /hr)
Coke Oven	1	COB#1	140	200000
	1	COB#2	140	200000
	1	COB#1DE	25	300000
	1	COB#2DE	25	300000
	1	COB#1CDQ	25	200000
	1	COB#2CDQ	25	200000
Sinter Plant	1	SP#WG	120	850000
	1	SP#1DE	40	800000
Pellet Plant	1	PLP1 #WASTE GAS	120	1800000
	1	PLP1 #1 DE	55	300000
	1	PLP1 #2 DE	55	300000
	1	PLP2 #WASTE GAS	120	1800000
	1	PLP2 #1 DE	55	300000
	1	PLP2 #2 DE	55	300000
Blast Furnace	1	BF1#1STOVE	80	530000
	1	BF1#1SH	70	1960000
	1	BF1#2SH	70	370000
	1	BF1#1CH1	70	800000
	1	BF1#1CH2	70	800000
	1	BF1#1SGP	30	200000
	1	BF1#2SGP	30	200000
Calcination Plant	1	LimeKiln#1	55	135000

	1	LimeKiln#2	55	135000
	1	DoloKiln#1	55	135000
Steel Melting Shop	1	SMS1#Primary 1 (Flare)	80	260000
	1	SMS1#Primary 2(Flare)	80	260000
	1	SMS1#Primary 3 (Flare)	80	260000
	1	SMS 1#SE	99	3279279
Mills	1	HSM-RHF#1	70	150000
	1	CRM-CAL#1	65	100000
	1	CRM-CGL#1	65	50000
	1	TinL#1	65	30000
Captive Power Plant	1	CPP#1	100	1000000
Cement Plant	1	PSC #1	60	900000
	1	PPC# 1	60	700000

64. In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Further, specific measures like water sprinkling shall be carried out at the raw material yard, wagon tippler/ truck tippler etc. Fugitive emissions shall be controlled, regularly monitored and records maintained. The storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions.
65. The industry shall install wind barrier/ wind shield arrangement along the railway line for reducing the dust propagation.
66. Necessary preventive measures shall be taken during construction phase so that the ambient air quality including noise shall conform to National ambient air quality standards and standards for noise in industrial area as per **Annexure-I**. Ambient air quality at the boundary of the plant premises shall meet the prescribed standards of the Board as per **Annexure -II**. The ambient air quality monitoring report shall be submitted to the Board every month.
67. The unit shall install online Continuous Stack Emission Monitoring Systems (CEMS) at all the process stacks of the plant for online real time monitoring for PM, SO₂ and NO₂ and other specific parameters as prescribed by CPCB with data transmission through GPRS system to SPCB RTDAS server and sever of CPCB.
68. The unit shall install **06 no.** of online Continuous Ambient Air Quality Monitoring Systems (CAAQMS) with real time data transmission through GPRS system to SPCB RTDAS Server & CPCB server for monitoring of AAQ parameters with respect to standards prescribed in Environmental Protection Rules, 1986 and as amended from time to time.
69. Performance monitoring of pollution control equipment shall be taken up yearly basis and compliance status in this regard shall be reported to the Board.
70. Industry shall install industry grade HD IP (Internet Protocol) surveillance cameras at suitable location to view emission from all the stacks and fugitive emission of the plants, having PAN, Tilt, Zoom (PTZ) with wiper facility and minimum 30x optical zoom. The camera shall support day & night operation with Infra-red cut filters, cover 400m or more distance. The camera must support latest network protocols, network security (password protection, IP address filtering, HTTPS encryption) and 3rd party applications. This camera shall comply with international standards IEC 62262, IP66 with IK10 ratings or higher quality. Real Time Un-interrupted data

from this online IP camera shall be connected with the Central Server of State Pollution Control Board, Odisha through IoT/GPRS device for data streaming and/or through dedicated lease line by the industry. The industry shall make provisions at the site to store video streaming data of this camera for at least one month and facility for data migration to external devices

71. Monitoring of stack emissions, fugitive emissions, trade effluent and noise level shall be done as per CPCB regulations.
72. The proponent shall abide the emission standards for diesel engines (engine rating more than 0.8 MW (800 KW) notified by the Environment (Protection) third amendment Rules 2002, vide G.S.R. 489 (E), dated 9th July, 2002 at serial no. 96 under the Environment (Protection) Act, 1986).
73. Height of the stack attached to D.G. sets shall be maximum of the following in meter:
 - (i) $14 Q^{0.3}$, Q=Total SO₂ emission from the plant in kg/
 - (ii) Minimum 6m. above the building where the generator set is installed.
 - (iii) 30 m.
74. Air compressor and DG set should be acoustically designed and should be housed in appropriate acoustic enclosures so that the noise level outside it shall conform to the prescribed norms.
75. The minimum stack height of the boilers, furnaces, kilns etc., shall be according to the following formula:

$$H = 14 (Q)^{0.3} \text{ meters}$$

H = Height of the stack in meter and
Q = Quantity of SO₂ emission in kg/hr
76. The proponent shall install Pneumatic dust handling system in Electrostatic Precipitator (ESP) and Bag Filters. A mechanical operated system for timely collection and removal of the flue dust generated in air pollution control device shall be installed.
77. Sinter Plant shall be equipped with Sinter cooler waste heat recovery system and suitable technology for control of dioxins and furans emissions from the plant.
78. The unit shall provide adequate dust extraction system such as bag filter in the fuel and flux crushing unit, proportioning unit and other plant de-dusting unit of Sinter plant so that particulate matter emission shall not exceed 30 mg/Nm³ from each stack.
79. Coke Dry Quenching (CDQ) shall be provided for coke quenching coke ovens and the industry shall be equipped with standby modified wet quenching system.
80. The coke ovens shall comply with following prescribed emission standards:

Emission standards		
New Batteries (at Green field site)	Fugitive visible emission	
	Leakage from door	Parameter
		5 (TLD)
	Leakage from charging lids	Parameter
		1 (PLL)
	Leakage from AP covers	Parameter
		4 (PLO)
	Charging emission (Second / charge)	Parameter
		16 (with HPLA)
PLD - Percent leaking doors , PLL - Percent leaking lids , PLO - Percent leaking off takes and HPLA-Aspiration through high pressure liquor injection in gooseneck		

Stack emission standards	SO ₂ (mg/Nm ³)	800
	NO ₂ (mg/Nm ³)	500
	Particulate matter (mg/Nm ³)	50
	Particulate matter during charging of stamp charging batteries (mg/Nm ³)	25
	Sulphur in coke oven gas used for heating (mg/Nm ³)	800
Fugitive emission: Benzo (a), Pyrene (BaP)	Battery area (top of the battery) (µg/m ³)	5
	Other units in coke oven plant (µg/m ³)	2
	Carbon Monoxide in coke oven	3 kg/ton of coke produced
	Particulate matter during coke pushing in coke oven	5 gm/ton of coke produced.
	Particulate matter for quenching operation in coke oven	50 gm/ton of coke produced.

81. The Sintering, Blast Furnace, Steel Melting Shop, Rolling mill and Lime Kilns shall comply with following emission standards:

Source	Pollutant		Emission Standard
Sintering plant	Particulate matter (mg/Nm ³)		30
Blast Furnace	Stack emission		
	Particulate matter (mg/Nm ³)		30
	SO ₂ (mg/Nm ³)		200
	NO ₂ (mg/Nm ³)		150
	CO (Vol/Vol)		1 % maximum
	Space de-dusting / other stacks of BF area		
	Particulate matter (mg/Nm ³)		30
	Fugitive emission		
	Particulate matter size less than 10 microns (µg/m ³)		3000
	SO ₂ (µg/m ³)		150
	NO ₂ (µg/m ³)		120
	CO (µg/m ³)	8 hours	5000
		1 hour	10,000
	Lead as Pb in fugitive dust (µg/m ³) at cast house		2
Steel Melting Shop (SMS)	Stack emission		
	Particulate matter (mg/Nm ³)		30
	Particulate matter (mg/Nm ³)	Blowing / lancing operation	Should be with gas recovery
		Normal operation	Should be with gas recovery
	Fugitive emission		

	Particulate matter size less than 10 microns ($\mu\text{g}/\text{m}^3$)		3000
	SO_2 ($\mu\text{g}/\text{m}^3$)		150
	NO_2 ($\mu\text{g}/\text{m}^3$)		
	CO ($\mu\text{g}/\text{m}^3$)	8 hours	5000
		1 hour	10,000
	Lead as Pb in fugitive dust ($\mu\text{g}/\text{m}^3$) at cast house		2
Lime kiln	Emission standard (capacity above 40ton per day)		
	Particulate matter (mg/Nm^3)		30

82. The industry shall provide fume extraction with gas cleaning facilities to extract fumes and gases and gas cleaning system shall comprises of water-cooled duct, gas cooler, (Bag House, ID fan and stack in the Basic Oxygen Furnace so that particulate matter emission shall not exceed $30 \text{ mg}/\text{Nm}^3$.
83. Blast Furnaces shall be equipped with Top Recovery Turbine, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.
84. Adequate secondary fume extraction system shall be installed on the converters of Steel Melting Shop/ Basic Oxygen Furnace to control fugitive dust emission in respective work environment. The detail design shall be submitted along with Consent to Operate Application.
85. Around 60 % of billets/slabs shall be rolled directly in hot stage. Reheating Furnace (RHF) shall operate using only Light Diesel Oil or Mixed BF/CO gas/ Syn Gas.
86. Basic Oxygen Furnace (BOF) gas shall be cleaned dry.
87. The unit shall provide adequate dust extraction system such as bag filter in the stack attached to Laddle Refining furnace so that particulate matter emission shall not exceed $30 \text{ mg}/\text{Nm}^3$.
88. Working area including the roads surrounding the plant shall be asphalted or concreted & water sprinkling system shall be installed to suppress the fugitive dust emission.
89. Both dust suppression (dry fog) and extraction (bag filter) system shall be provided at all dust generating source such as crushing, screening & material transfer points etc. to control fugitive emission.
90. Cement from the cement grinding section shall be transported to the storage silo through air slides and bucket elevator and same shall be of closed type and connected to the dust extraction system.
91. The unit shall adopt adequate safety measures such as exposure to high temperature surfaces, exposure to CO emissions, and prevention (and control) of explosions and backfires.
92. Leakage proof doors shall be provided to control fugitive dust emission during the operation of the coke oven plant.
93. Coke oven gas shall be desulfurized.

94. Air pollution control devices shall be maintained properly. Fabric bags and cages in bag house shall be checked regularly and replaced whenever required. Adequate availability of spares shall be ensured for immediate replacement.
95. The unit shall provide porthole and platform at suitable location with safe approach to conduct emission and monitoring at all the stacks.
96. The project proponent shall monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours' average exposures) with permissible limits based on free silica content of air borne respirable dust.
97. All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the runoff material.
98. Metallic screen barriers shall be installed of adequate height at RMHS yard for the effective control of dust to be air borne.
99. The industry shall install pre-wetting system and automated DFDS system at wagon tipping area, track hopper area truck tipping area.
100. During the operation phase, industry proponent shall conduct air monitoring in the vicinity of adjoining schools and human habitations to assess environmental/ecological impact. The project proponent shall implement a project specific AQMP (Air Quality Management Plan) with best practices.
101. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
102. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

D. SOLID & HAZARDOUS WASTE:

103. The proponent shall carry out refractory management practices to be followed with a vision for zero solid waste disposal practices.
104. The proponent shall establish Mechanized Waste Converter adopting suitable technology and put it under covered shed for processing of Municipal Solid Waste generated from the unit, to produce valuable products.
105. The iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process shall be briquetting/ agglomeration and recycled in the process.
106. The industrial solid waste management shall be carried out as proposed in the Project Report as follows;

Solid wastes	Estimated Generation, MTPA	Management Scheme
BF slag	1.28	Granulation in slag granulation plant and used in cement manufacturing in captive cement plant.

BOF slag	0.67	Recovery of metallics & non- metallics for in-plant use. Balance utilized as railway ballast, in construction aggregate, after processing.
LF slag	0.45	
Flue dusts	0.07	Reuse in agglomeration.
Mill scales	0.09	Reuse in agglomeration.
Fly ash	0.31	To be Used to produce cement in the captive cement plant.
Bottom ash	0.08	Would be stored in ash pond and used for road making.

107. The Solid Slag processing and Metal recovery units shall be provided for recovery of BOF slag and will be of 650000 TPA capacity.
108. All Refractory wastes and other solid wastes as expected to be generated from Basic Oxygen Furnace, Basic Oxygen Furnace, Ladle and other furnaces, Coke oven, Blast furnace, Lime and dolo Kiln, reheating furnaces in mills, furnaces for power/ steam generation shall be managed by segregation, recycling and disposal in designated dump site.
109. Adequate dust suppression measures shall be taken to control fugitive emission from handling of raw materials and products.
110. The Hazardous Waste material shall be disposed to authorized authorities as follows.

Hazardous waste	Generation TPA	Management scheme
Chrome sludge	40	Disposed in secured landfill in CHWTSDf through authorized agencies
Decanter tank & tar storage tank sludge	400	Reused in coke oven
Used & waste oil	675	Sold to recycled recyclers
Zinc Dross	15000	Sold to recycled recyclers
ZLD salt (from Evaporator)	4950	Disposed through authorized hazardous waste recycling agencies

111. The solid waste generated as ETP sludge and from other sources shall be suitably disposed of without causing any public nuisance or environmental contamination.
112. CDQ dust generated from Coke Oven operation from the DE system shall be collected by pneumatic dust handling system and shall be further transferred to the Sinter Plant for reuse in sinter making.
113. Detailed long term planning for at least 20 years for solid waste disposal including BF, SMS slag shall be submitted to the Board within 6 months from the date of issue of this order. While arrangement of complete utilization of BF slag shall be made, various options of utilization of SMS slag shall be explored to decide for a final action plan for its disposal.
114. The Topsoil removed during construction phase should be managed scientifically with the objective of conservation, and earliest and continuous reuse.

115. A Solid Waste Management Cell shall be created under Environmental management cell and complete utilization of all solid waste shall be envisaged and implemented in a sustained manner. All the available research and development options shall be scouted in this regard. The exact utilization of solid waste shall be finalized in consultation with the State Pollution Control Board.
116. A dedicated storage yard (at least 3 Ac) with concreted base and covered shed shall be constructed for storage of used oil barrels, oil cottons, batteries, empty chemical contaminated containers and e-waste generated from the plant. Location shall be demarcated in the layout map. The loop for disposal of hazardous waste should be maximum within 90 days.
117. The industry shall obtain authorization for management of Hazardous Waste as per provisions of Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 as amended from time to time.
118. Municipal Solid Waste generated from the unit shall be disposed off as per the Solid Waste Management Rules, 2016 and amendment thereafter.


MEMBER SECRETARY

Encl: Approved Layout Map and Annexure -I & II

To

The President,
M/s JSW Utkal Steel Limited,
Jatadhar Bhawan, Madhuban,
City-Paradeep, District - Jagatsinghpur, Odisha.
PIN: 754142



Memo No. _____ /Date _____ /

Copy forwarded to:

1. The Collector & District Magistrate, **Jagatsinghpur.**
2. The Director, Factories & Boiler, Bhubaneswar
3. The DFO, **Jagatsinghpur.**
4. Consent to Operate Cell, SPC Board, BBSR
5. Hazardous Waste Management Cell, SPC Board, BBSR
6. The Regional Officer, SPC Board, **Paradeep.**
7. Copy to Guard file

ADDL.CHIEF ENV. ENGINEER

NATIONAL AMBIENT AIR QUALITY STANDARDS

CENTRAL POLLUTION CONTROL BOARD

NOTIFICATION

New Delhi, the 18th November, 2009

No. B-29016/20/90/PCI-L.—In exercise of the powers conferred by Sub-section (2) (h) of section 16 of the Air (Prevention and Control of Pollution) Act, 1981 (Act No.14 of 1981), and in supersession of the Notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998, the Central Pollution Control Board hereby notify the National Ambient Air Quality Standards with immediate effect, namely:-

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time Weighted Average	Concentration in 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), µg/m ³	Annual* 24 hours**	50 80	20 80	- Improved West and Gaeke - Ultraviolet fluorescence
2	Nitrogen Dioxide (NO ₂), µg/m ³	Annual* 24 hours**	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3	Particulate Matter (size less than 10µm) or PM ₁₀ , µg/m ³	Annual* 24 hours**	60 100	60 100	- Gravimetric - TOEM - Beta attenuation
4	Particulate Matter (size less than 2.5µm) or PM _{2.5} , µg/m ³	Annual* 24 hours**	40 60	40 60	- Gravimetric - TOEM - Beta attenuation
5	Ozone (O ₃), µg/m ³	8 hours** 1 hour**	100 180	100 180	- UV photometric - Chemiluminescence - Chemical Method
6	Lead (Pb), µg/m ³	Annual* 24 hours**	0.50 1.0	0.50 1.0	- AAS/ICP method after sampling on EPM 2000 or equivalent filter paper - ED-XRF using Teflon filter
7	Carbon Monoxide (CO), mg/m ³	8 hours** 1 hour**	02 04	02 04	- Non Dispersive Infra Red (NDIR) spectroscopy
8	Ammonia (NH ₃), µg/m ³	Annual* 24 hours**	100 400	100 400	- Chemiluminescence - Indophenol blue method

THE GAZETTE OF INDIA : EXTRAORDINARY

[PART III—Sec. 4]

(1)	(2)	(3)	(4)	(5)	(6)
9	Benzene (C ₆ H ₆) µg/m ³	Annual*	05	05	- Gas chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10	Benz(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 104 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.

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

SANT PRASAD GAUTAM, Chairman
[ADVT-III/18409/Exy.]

Note: The notifications on National Ambient Air Quality Standards were published by the Central Pollution Control Board in the Gazette of India, Extraordinary vide notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998.

ANNEXURE-II

SCHEDULE
(see rule 3(l) and 4(l))

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area/Zone	Limits in dB(A) Leq *	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Note

1. Day time shall mean from 06:00 A.M. to 10:00 P.M.
2. Night time shall mean from 10:00 P.M. to 06:00 A.M.
3. Silence zone is defined as an area comprising not less than 100 meters around hospitals, educational institutions and courts. The silence zones are zones which are declared as such by the competent authority.
4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

*dB(A) Leq 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.

Leq : It is an energy mean of the noise level, over a specified period.

[F. No. Q-14012/1/96-CPA]
VIJAI SHARMA, R. Secy.



E-mail: paribesh1@ospcboard.org
Website: www.ospcboard.org

STATE POLLUTION CONTROL BOARD, ODISHA
[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]
Paribesh Bhawan, A/118, Nilakantha Nagar, Unit - VIII
Bhubaneswar - 751012

No. 5360/

IND-II-CTE-7513

Date: 08-04-2026

Through online/By speed post

CONSENT TO ESTABLISH ORDER

In consideration of the online application No. **6597830** for grant of Consent to Establish of **M/s JSW Utkal Steel Limited (Expansion)**, the State Pollution Control Board is pleased to convey its Consent to Establish under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 for **Expansion of Integrated steel plant (Phase - 2) from 4.5 MTPA to 9 MTPA Hot metal** for the following plant facilities:

Sl. No.	Plant Configuration	Existing 4.5 MTPA phase-1	Proposed additional - 4.5 MTPA phase-2	Total Capacity after Phase 2 (9 MTPA)
1.	Pellet Plant	2 x 8 MTPA	2 x 8 MTPA	32 MTPA
2.	Coke oven	4 x 62 Ovens (3MTPA)	2 x 62 Ovens	4.5 MTPA
3.	Sinter plant	1 x 500 m ²	-	5.775 MTPA
4.	Blast furnace	1 x 5350 m ³	1 x 5350 m ³	9.0 MTPA
5.	Steel Making (SMS-1)			10.11 MTPA
	BOF	2 x 350 T	1 x 350 T	
	LF	2 x 350 T	1 x 350 T	
	RH	1 x 350T	1 x 350T	
6.	Caster Shop	Slab Caster - 2 x 2 strand	Slab Caster - 1 x 2 strand	10 MTPA
7.	Hot Strip Mill	1 x 5.5 MTPA	-	5.5 MTPA
8.	Cold Rolling Mill Complex-1			2 x 2.3 MTPA 4 x 0.5 MTPA 2 x 1.0 MTPA
	PLTCM	1 x 2.3 MTPA	1 x 2.3 MTPA	
	Continuous Galvanising line- CGL	2 x 0.5 MTPA	2 x 0.5 MTPA	
	Continuous Annealing line- CAL	1 x 1.0 MTPA	1 x 1.0 MTPA	

	RCL	2 x 0.25 MTPA	2 x 0.25 MTPA	4 x 0.25 MTPA
	Color Coating Line-CCL	2 x 0.25 MTPA	2 x 0.25 MTPA	4 x 0.25 MTPA
	Tinplate	1 x 0.25 MTPA	1 x 0.25 MTPA	2 x 0.25 MTPA
	Silicon Steel(CRNO)	1 x 0.25 MTPA	1 x 0.25 MTPA	2 x 0.25 MTPA
9.	Calcined Lime Plant	2 x 600 TPD	4 x 600 TPD	0.97 MTPA
	Calcined Dolo Plant	1 x 600 TPD	-	0.13 MTPA
10.	Portland Slag cement plant	1 x 3.75 MTPA	1 x 3.75 MTPA	10 MTPA
	Pozzolona Portland cement plant	1 x 1.25MTPA	1 x 1.25 MTPA	
11.	Captive Power Plant	1 x 300 MW	1 x 300 MW	600 MW
12.	Oxygen Plant (Air separation)	2 x 2100 TPD	3 x 2100 TPD	10500 TPD
13.	Tar Processing plant	-	200000 TPD	200000 TPD
14.	Benzol Refining Plant	-	66700 TPD	66700 TPD
15.	Incinerator	-	10 TPD	10 TPD
16.	Construction Facilities			
	Batching Plant	4 x 60 m ³ /Hr	4 x 60 m ³ /Hr	8 x 60 m ³ /Hr
	DG Sets	10 x 500 kVA	10 x 500 kVA	20 x 500 kVA
	Construction & Storage yards	4 nos Yards	4 nos Yards	8 nos Yards

With project cost of Rs. 18,172.7 Crore over an area of 752 acres (Phase-2) out of total 2780.63 Acs located at Villages of Polang, Bayanala kandha, Gobindapur, Dhinkia, Nuagaon and Jatadhar of Ersama Tehsil in the district of **Jagatsingpur** with the following conditions.

GENERAL CONDITIONS:

1. This Consent to Establish is valid for the raw materials, product, manufacturing process and capacity mentioned in the application form. This order is valid for **five years**, which means the proponent shall commence construction of the project within a period of five years from the date of issue of this order. If the proponent fails to do substantial physical progress of the project within five years then a renewal of this consent to establish shall be sought by the proponent.
2. The industry shall comply to the provisions of Environment (Protection) Act, 1986 and the rules made thereunder with their amendments from time to time such as the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 as amended from time to time, Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 etc. and amendments thereunder. The industry shall also comply with the provisions of Public Liability Insurance Act, 1991.

3. The industry shall apply for grant of Consent to Operate under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board.

SPECIAL CONDITIONS:

A. GENERAL CONDITIONS:

1. **The proponent has to obtain all statutory clearances as well as permission from Central / State Government as applicable from time to time to keep this order in force.**
2. The proponent shall comply with the stipulations as per the Environmental Clearance granted by MoEF & CC, Govt. of India vide File no. IA-J-11011/524/2017-IA-II(I), **EC Identification No. EC22A008OR135518, Dated 11/04/2022** for Setting up of a greenfield integrated steel plant of capacity 13.2 MTPA crude steel with 10 MTPA Cement grinding unit & 900 MW Captive Power Plant near Paradeep, Jagatsinghpur district.
3. The proponent shall submit six monthly progress reports every year (i.e. June and December) of construction activity of the project to the Board (at Head Office and Regional Office) for records and verification.
3. Certificates from the designer or manufacturers of plant facilities shall be provided to the Board before going for installation of plant facilities at the designated places in the layout map.
4. Proponent shall ensure **complete acquisition of the proposed land** prior to commencement of any expansion activities.
5. Proponent shall submit a **comparative statement** detailing pre- and post-expansion status with respect to **land use, Air Pollution Control Devices (APCD), Water Pollution Control (WPC) measures**, and other relevant environmental components.
6. The proponent shall submit a **detailed action plan for control of carbon emissions** and for achieving **Green Steel production**, including targets, timelines, and proposed mitigation measures.
7. The project proponent shall obtain requisite permission from the CGWA and Water Resources Department, Govt. of Odisha through Go-Swift Portal for withdrawal/use of ground water and surface water for the project.
8. Proponent should ensure use of Surface water instead of Ground Water to reduce stress on ground water.
9. A **green belt** of at least 15 m width preferably with local species shall be developed & maintained along the periphery of the project area & at least 7.5 m Green Belt all around the existing villages in & around plant area to act as a barrier & to protect from dust & noise. Plant may include **at least 1000 numbers of Banyan & Peepal trees each** in its green belt for supporting local biodiversity & environment. The proponent shall develop green belt of **at least 40% of total project land**.
10. No Tree Felling shall be allowed within plant premise without prior permission of Forest Department and other competent authorities.
11. At least 15 m Height metallic screen Barrier (wind Screen) of adequate length shall be provided towards surrounding village sides along plant Boundary (before 15m Green belt) to minimize dust impact on those habitation areas.
12. All raw materials should be stored under **covered shed with wind screens & Dust suppression systems**. In case of open yard stacking, the Raw materials storage yards shall be provided with **adequate height of Toe wall** all around & **Rain guns shall be installed** at appropriate intervals along Toe wall for dust suppression during dry season.
13. All chemicals, acids, paints, electrolytic solutions, etc to be used in rolling mills must be stored in respective leakproof containers under covered sheds following the prescribed safety norms. Spill

containment facilities with recovery systems must be provided in each storage areas to avoid contamination of runoff.

14. Adequate measures should be taken for control of noise levels in the work environment of plant area so that noise levels shall not exceed 75 dB (A) during daytime (06:00 AM to 10:00 PM) and 70 dB(A) during nighttime (10:00 PM to 06:00 AM).
15. Protective barriers shall be provided for the lights to prevent illumination towards the forest area during night hours.
16. All Internal roads of Plant area **should be concreted** with provision of **Mechanized Road sweeping Systems (Vacuum Type)** to maintain the road dust free. Proponent shall deploy adequate nos of **Fixed/mobile Fog cannons** at all dust prone areas, Loading/Unloading areas for effective control of fugitive dust emissions in order to maintain AAQ within the Limit.
17. The construction and demolition waste generated from the proposed project shall be disposed of in accordance with the provisions of the **Construction and Demolition Waste Management Rules, 2016**.
18. The proponent shall provide railway siding within the plant Boundary or nearby areas for at least 70% inland transportation of raw materials and product by Rail to minimize air pollution problems in the locality. Necessary approval from Indian railways & others may be obtained at the earliest.
19. A safety zone of atleast 50 m width with adequate Embankments shall be provided and maintained (between plant and river) all along the Jatadhar River for flood protection & to protect River from any discharge of contaminated effluent from the plant.
20. Industry has to develop mangrove forest all along the sea coast adjoining to the plant boundary for protection against erosion and to maintain sea ecosystem. In no case the Jatadhar Muhan shall be disturbed / obstructed.
21. Plant has to maintain Zero liquid discharge during dry season, Low & moderate rain condition.
22. The natural Rivers/ creeks that pass within or adjacent to Plant premises should not be diverted/obstructed without prior permission from the competent authority.
23. The unit shall explore installation of **Desalination plant** for use of sea water to meet their total freshwater requirement.

24. Carbon Footprint

In Order to reduce Carbon Footprint of the proposed expansion followings are recommended

- i. Industry must furnish detailed **carbon footprint report (Scope I & II)** of its Plants for assessment of carbon emissions.
- ii. Replacement of Diesel operated Transportation vehicles with Electric operated vehicles (EV) / Hydrogen based Tippers/Trucks for transportation of raw materials both internal as well as to the destinations.
- iii. Deployments of EV / Hydrogen Buses / vehicles for Employees, Locals & internal domestic transportation.
- iv. Explore the use of Green Hydrogen in Blast Furnace & other processing plants within a timeframe.
- v. At least 50% of the domestic & 25% Power Demand of the Project should meet from roof top Solar Plant / Windmills or combination of both. **Automation of Energy conservation must be implemented.**
- vi. Implementation of Advance Carbon Sequestration Technologies / methods to proceed towards Net Zero emissions.

25. Circular Economy

The industry may be asked to

- i. Ensure 100% recycling / reuse of all type & Category of wastes in its downstream.

- ii. Introduce Advance sorting Technology, implement Closed Loop Recycling system & develop Collection & Sorting infrastructure.
 - iii. The proponent shall develop a **carbon recovery plant** for recovery of **elemental carbon from GCP slurry**, for its effective utilization in the **sinter plant**.
 - iv. The BF, CO and LD gas shall be 100% utilized for power generation, heating process and to meet the energy demand in the process to avoid flaring.
26. The proponent shall install **Pneumatic dust handling system in Electrostatic Precipitator (ESP) and Bag Filters**. A mechanical operated system for timely collection and removal of the flue dust generated in air pollution control device shall be installed.
27. Following APC Systems as proposed shall be provided to control PM & fugitive dust emissions from different processing units.

Sl. No.	Dust control system of the Units	Proposed capacity
1.	BF 2 STOVE	530000 NM ³ /Hr
2.	Electrostatic Precipitator-BF 2 CH1	800000 NM ³ /Hr
3.	Electrostatic Precipitator-BF 2 CH2	800000 NM ³ /Hr
4.	Electrostatic Precipitator-BF 2 SH1	1960000 NM ³ /Hr
5.	Electrostatic Precipitator-BF 2 SH2	370000 NM ³ /Hr
6.	Bag Filter-BF 2 SGP1	200000 NM ³ /Hr
7.	Bag Filter-BF 2 SGP2	200000 NM ³ /Hr
8.	COB 1	65000 NM ³ /Hr
9.	Bag Filter -COB 1 CDQ	100000 NM ³ /Hr
10.	COB 2	65000 NM ³ /Hr
11.	Bag Filter - COB 2 DE	100000 NM ³ /Hr
12.	Bag Filter -COB 2 CDQ	100000 NM ³ /Hr
13.	Bag Filter - COB 2 DE	100000 NM ³ /Hr
14.	Electrostatic Precipitator-PLP 3 WASTE GAS	1800000 NM ³ /Hr
15.	Electrostatic Precipitator- PLP 3 DE1	300000 NM ³ /Hr
16.	Electrostatic Precipitator- PLP 3 DE2	300000 NM ³ /Hr
17.	Electrostatic Precipitator-PLP 4 WASTE GAS	1800000 NM ³ /Hr
18.	Electrostatic Precipitator- PLP 4 DE1	300000 NM ³ /Hr
19.	Electrostatic Precipitator- PLP 4 DE2	300000 NM ³ /Hr
20.	Bag Filter - SMS 1 SE2	3279279 NM ³ /Hr
21.	Electrostatic Precipitator- CPP2	1000000 NM ³ /Hr
22.	Bag Filter - LIME KILN 3	1350000 NM ³ /Hr
23.	Bag Filter - LIME KILN 4	1350000 NM ³ /Hr
24.	Bag Filter - LIME KILN 5	1350000 NM ³ /Hr
25.	Bag Filter - LIME KILN 6	1350000 NM ³ /Hr
26.	CRM CAL2	100000 NM ³ /Hr
27.	CRM CGL3	50000 NM ³ /Hr
28.	CRM CGL4	50000 NM ³ /Hr
29.	TIN L2	30000 NM ³ /Hr
30.	Bag Filter - PSC 5	900000 NM ³ /Hr
31.	Bag Filter - PSC 6	900000 NM ³ /Hr
32.	Bag Filter - PSC 7	900000 NM ³ /Hr
33.	Bag Filter - PSC 8	900000 NM ³ /Hr
34.	Bag Filter - PPC 3	700000 NM ³ /Hr

35.	Bag Filter - PPC 4	700000 NM ³ /Hr
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28. The wastewater generated from leakages, dust suppression, blow down and DM plant shall be treated individually to meet the following prescribed standard of effluent discharge to inland surface water and stored in a common basin for utilization for plantation and green belt purposes inside the factory premises.

Parameter	Boiler (mg/L)	Blowdown	Cooling Tower Blowdown (mg/L)	DM Plant (mg/L)
pH	---	---	---	6.5 to 8.5
Suspended Solids	100	---	---	100
Oil and Grease	20	---	---	10
Copper (Total)	1.0	---	---	---
Iron (Total)	1.0	---	---	---
Free Available Chlorine	---	---	0.5	---
Zinc	---	---	1.0	---
Chromium (Total)	---	---	0.2	---
Phosphate	---	---	5.0	---

29. The domestic wastewater to be generated shall be treated in **Sewage Treatment Plant (STP)** of 140 KLD capacity consisting of Screen chamber, Oil and Grease Trap, Aeration tank (MBBR system), Tube Settler, Clarifier, Filter Press/Centrifuge, Multigrade Sand Filter, Activated Carbon Filter, and UV treatment units to meet the following standards as notified by the MoEF&CC, Govt. of India vide G.S.R. 1265 (E), dated 13.10.2017.

Sl. No.	Parameters	Standards
1.	pH	6.5-9.0
2.	BOD (mg/l)	<20
3.	TSS (mg/l)	<50
4.	Fecal Coliform (MPN/100ml)	<1000

30. Under no circumstances any wastewater from the project premises shall be allowed to discharge to nearby nallahs/ river/ any streams. The surplus treated effluent from STP shall be treated in a **Tertiary Treatment Plant (TTP)** and should be reused in nearby industries / construction projects/parks/ gardens, etc to avoid contamination of natural nallah/water bodies.
31. The project must provide Dual Plumbing facilities in each apartment for reuse of treated effluent for flushing purposes. The treated water shall be reused for flushing, gardening, and plantation to the maximum possible extent.
32. Unit shall carry out complete study & preparation of action plan for proper runoff management system by reputed agencies / In-house shall be submitted to the Board for proper implementation.
33. The treated wastewater from the proposed **Central Effluent Treatment Plant (CETP)** of 900 cum/hr shall be utilized after meeting the following standard.

Parameter	Limiting Concentration
pH	5.5 to 9.0
Suspended Solids	100 mg/L
BOD (3 days, 27°C)	30 mg/L
COD	250 mg/L
Oil & Grease	10 mg/L
Ammoniacal Nitrogen (as N)	50 mg/L
Cyanide (as CN)	0.2 mg/L

Phenolic Compounds	1.0 mg/L
Copper (Total)	3.0 mg/L
Iron (Total)	3.0 mg/L
Free Available Chlorine	0.5 mg/L
Zinc	5.0 mg/L
Chromium (Total)	0.2 mg/L
Phosphate	5.0 mg/L

34. The wastewater generated from various sections like coke oven, blast furnace, steel melting shop, rolling mill etc. shall conform to the following prescribed standards.

Parameters	Coke Oven	Blast Furnace	Steel Melting Shop	Rolling Mill
pH	6.0 to 8.5	6.0 to 8.5	6.0 to 8.5	6.0 to 9.0
Suspended Solids	100	50	100	100
BOD, 3 days at 27°C	30	10	----	----
COD	250	----	----	----
Oil and Grease	10	----	10	10
Ammonical Nitrogen as N	50	50	----	----
Cyanide as CN	0.2	0.2	----	----
Phenol	1.0	----	----	----

N.B: Limiting concentration in mg/l except for pH.

35. The industry has to take necessary steps on war foot basis to install Fly Ash Based (FAB) sand plant at its plant premises within one year to convert fly ash to FAB sand through geopolymerization and coal bonding pelletization process as recommended by School of Infrastructure, IIT Bhubaneswar (September 2025) in its technical report to avoid dust emissions, moisture conditioning, risk to environment, leaching of potentially toxic elements, spill management, etc during transportation and handling of ash.
36. The industry may also use the technology for conversion of fly ash to sintered fly ash coarse aggregate (Artificial Lightweight Aggregate) conforming to IS 9142: Part 2: 2018 for utilization in construction of floors, internal roads & other areas in order to reduce load on natural resources & promote Circular economy and ultimately the pollution problem due to fly ash transportation and disposal.
37. The Board may impose further conditions or modify the conditions stipulated in this order during installation and/or at the time of obtaining consent to operate and may revoke this order in case the stipulated conditions are not implemented and/or information is found to have been suppressed/wrongly furnished in the application form.
38. The unit shall abide by EP Act, 1986 and the rules framed thereunder.

WATER AND AIR POLLUTION

- Unit shall ensure that all natural streams / creeks exist within the proposed area or passes adjacent to it should be properly protected & maintained from any contamination. In no case any wash out/ effluent shall be allowed to discharge into local streams, Nallah, creeks & ultimately to Bay of Bengal.
- Rainwater harvesting structure of adequate capacity inside the premises shall be developed to reuse as per CPCB Guidelines to meet its water demand. **Water neutrality in the zone must be followed.**

3. The project proponent shall not utilize ground water for construction phase without prior approval from concerned authority.
4. Plant must ensure that there will be no contamination of surrounding water streams/ Rivers of Plant area due to its operation since these streams are being used by local villagers for their domestic, fishyculture & agriculture purposes.
5. Cooling water shall be 100% recycled through cooling Tower.
6. Garland drains shall be provided all-around Process areas, Raw materials Storage Yards/Sheds/ RHMS at outer side of Toe wall & these drains shall be channelized Run off to **Surface Run off Treatment Plant (SRTP) for treatment** & treated water shall be reused in the process/ Recycled in process/ Makeup/ dust suppressions / Plantations etc. In no case the effluent from SRTP shall be allowed to mix with Surface run off from non-processing areas.
7. Run off from non-processing plant areas should be provided with separate Storm drains terminated at Masonry Guard Ponds (impervious bottom) with spill way provision at opposite end of Inlet followed by Fabric membrane Filtration system for proper settling, Treatment & Filtration prior to discharge during heavy rains to avoid contamination of surrounding water bodies.
8. Guard Ponds should be designed to hold the run off during low & moderate rains (Zero discharge) & in case heavy rain the overflow shall pass through spillway followed by Fabric Membrane Filtration system. The Guard ponds should be equipped with Coagulant dosing facilities at Inlet end & Pumping facilities at outlet end to recycle/reuse the run off for dust suppressions/ Plantation/wheel washing systems etc.
9. The unit shall install Continuous Effluent Quality Monitoring System (**CEQMS**) with IP camera at ETP & STP outlet and shall be connected to SPCB, Odisha server through RT-DAS.
10. Proponent shall regularly monitor the water quality of the Creeks/Nallha/River/Water bodies flowing within & adjacent of the plant boundary & analysis reports shall be submitted to the Board at least twice a year.
11. Proponent has to monitor the groundwater quality of the area at least twice a year.
12. Proponent shall **install multiple wheels washing facilities in Parallel covering dispatch route** to ensure whole body washing of transporting vehicles i.e. Tippers/ trucks etc to avoid carryover of dust and mud to Public roads. The wash effluent of wheel washing systems shall be 100% recycled through settling Tanks.
13. Dust prone areas must be equipped with DFS, Water sprinkling systems to control fugitive dust emissions.
14. Industry must explore the use of Natural Gas by replacing all petroleum based fuels to minimize air pollution problem particularly to reduce SO₂ emissions.
15. The transportation of raw materials / Product during operation will be done with covered trucks/ vehicles. Industry must provide adequate Parking facilities inside Plant premises to avoid traffic congestion on Public Road.
16. Unit shall submit the Transportation Management Plan to avoid any Parking of Trucks/Tippers, etc on roads prior to go for expansion so that local traffic should not suffer.

A. Pellet Plant (2 x 8 MTPA)

1. Industry should provide adequate capacity of ESPs at stack attached to Wind Boxes & Hood Exhausts of travelling Grate Kilns of Pellet Plants to control PM emission through Stack within 30 mg/Nm³.
2. Industry should provide adequate capacity of DFS /Bag Filter at Proportioning and mixing building, transfer points of Raw materials conveyors, Product conveyors, crushers, Ball mills, Primary & Secondary screens & at feeding Hoppers for effective control of fugitive dust emissions.

3. All raw materials should be stored under covered shed with dust suppression systems. In case open yard stacking the Raw materials storage, yards shall be provided with adequate height of Toe wall all around & Rain guns shall be installed at appropriate intervals along Toe wall for dust suppression during dry season.
4. Software controlled interlocking facility should be provided on the basis of real time data from the plant control system, to ensure stoppage of feed conveyor, so that, feed to the kiln would stop automatically, if Air Pollution Control System is not in operation.

B. Coke Oven (2 x 62 Ovens: 1.5 MTPA)

1. Industry must provide Leak proof oven doors, water sealed ascension pipe to avoid leakages during operation of the coke oven plant.
2. Charging Emission should be controlled by on-main charging using gas transfer car with HPLA.
3. Coke Dry Quenching (CDQ) techniques shall be followed for quenching of coke.
4. Coke oven gas shall be desulfurized & byproducts shall be recovered. Coke oven gas shall be 100% used in CPP.
5. VOC emissions shall be controlled through adequately designed Scrubber.
6. Effluent to be generated from Coke oven & Byproduct Plant shall be separately channelized to BOD plant for proper treatment & treated water from BOD plant shall be further channelized to CETP & RO for reuse as plant make up water.
7. In no case any untreated & Treated effluent from coke oven & Recovery plant, BOD Plant & CETP shall be allowed to discharge to outside plant premises.
8. The proponent shall built **NH₃ recovery plant** to recover NH₃ & produce byproducts.
9. The coke ovens shall comply with following prescribed emission standards:

Emission standards		
New Batteries (at Green field site)	Fugitive visible emission	Parameter
	Leakage from door	5 (TLD)
	Leakage from charging lids	1 (PLL)
	Leakage from AP covers	4 (PLO)
	Charging emission (Second / charge)	16 (with HPLA)
PLD - Percent leaking doors , PLL - Percent leaking lids , PLO - Percent leaking off takes and HPLA-Aspiration through high pressure liquor injection in gooseneck		
Stack emission standards	SO ₂ (mg/Nm ³)	800
	NO ₂ (mg/Nm ³)	500
	Particulate matter (mg/Nm ³)	50
	Particulate matter during charging of stamp charging batteries (mg/Nm ³)	25
	Sulphur in coke oven gas used for heating (mg/Nm ³)	800
Fugitive emission: Benzo (a), Pyrene (BaP)	Battery area (top of the battery) (µg/m ³)	5
	Other units in coke oven plant (µg/m ³)	2
	Carbon Monoxide in coke oven	3 kg/ton of coke produced
	Particulate matter during coke pushing in coke oven	5 gm/ton of coke produced.

	Particulate matter for quenching operation in coke oven	50 gm/ton of coke produced.
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C. Blast Furnace (1 x 5350 m³)

1. The industry should provide adequate nos. of **online CO detectors with alarm system** at appropriate locations for detection of CO gas leakage connected to control room of the blast furnace to prevent accidental hazards.
2. Iron ore should be replaced with sponge iron to possible extent to reduce pollution load.
3. Blast Furnaces shall be equipped with Top Recovery Turbine, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.
4. The Blast Furnace shall comply with following emission standards:

Source	Pollutant	Emission Standard
Blast Furnace	Stack emission	
	Particulate matter (mg/Nm ³)	30
	SO ₂ (mg/Nm ³)	200
	NO ₂ (mg/Nm ³)	150
	CO (Vol/Vol)	1 % maximum
	Space de-dusting / other stacks of BF area	
	Particulate matter (mg/Nm ³)	30
	Fugitive emission	
	Particulate matter size less than 10 microns (µg/m ³)	3000
	SO ₂ (µg/m ³)	150
	NO ₂ (µg/m ³)	120
	CO (µg/m ³)	8 hours 5000
		1 hour 10,000
	Lead as Pb in fugitive dust (µg/m ³) at cast house	2

5. Dry type Gas Cleaning Plant should be provided for cleaning of the processed gas before using as in-plant fuel & production of power in CPP.
6. Adequate capacity Bag-filters shall be provided for Cast House and Stock House De-dusting, Pooling pit, and Torpedo De-slagging systems.
7. Vacuum cleaning systems must be deployed for cleaning of shop floors, conveyor gallery etc.
8. Cooling Tower Blow down shall be treated in CETP for reuse as make up water in plant.

D. Steel Melting Shop: Ladle furnace (1 x 350 T), Basic Oxygen Furnace (1 x 350 T), RH (1 x 350 T), Caster shop (Slab Caster: 1 x 2 strand)

1. The industry should provide fume extraction with gas cleaning facilities to extract fumes and gases and gas cleaning systems shall comprise of water-cooled duct, gas cooler, (Bag House, ID fan and stack in the Basic Oxygen Furnace so that particulate matter emission shall not exceed 30 mg/Nm³.
2. Adequate secondary fume extraction system shall be installed on the converters of LF & Basic Oxygen Furnace to control fugitive dust emission in respective work environment. The detailed design shall be submitted along with Consent to Operate Application.
3. The Steel Melting Shop shall comply with following emission standards:

Source	Pollutant	Emission Standard
Steel Melting	Stack emission	

Shop (SMS)	Particulate matter (mg/Nm ³)		30
	Particulate matter (mg/Nm ³)	Blowing / lancing operation	Should be with gas recovery
		Normal operation	Should be with gas recovery
	Fugitive emission		
	Particulate matter size less than 10 microns (µg/m ³)		3000
	SO ₂ (µg/m ³)		150
	NO ₂ (µg/m ³)		
	CO (µg/m ³)	8 hours	5000
		1 hour	10,000
	Lead as Pb in fugitive dust (µg/m ³) at cast house		2

4. Adequate secondary fume extraction system shall be installed on the converters of LF & Basic Oxygen Furnace to control fugitive dust emission in respective work environment
5. Basic Oxygen Furnace (BOF) gas shall be cleaned dry.
6. The unit shall provide adequate dust extraction system such as bag filter in the stack attached to LF so that particulate matter emission shall not exceed 30 mg/Nm³.
7. Vacuum cleaning systems must be deployed for cleaning of shop floors, conveyor gallery etc.
8. Wastewater to be generated from SMS etc. shall be 100% recycled after treatment.

E. Rolling Mill: PLTCM (1 x 2.3 MTPA), Continuous Galvanising line- CGL (2 x 0.5 MTPA), Continuous Annealing line- CAL (1 x 1.0 MTPA), RCL (2 x 0.25 MTPA), Color Coating Line-CCL (2 x 0.25 MTPA), Tinplate (1 x 0.25 MTPA), Silicon Steel (CRNO) (1 x 0.25 MTPA)

1. Wastewater generated from cooling process (Direct & Indirect), floor washing and other sources shall be treated in the ETP of adequate capacity with settling tank and chemical dosing for coagulation and treated wastewater shall be 100% recycled.
2. Acidic effluent to be generated from pickling process shall be channelized through acid regeneration plant to avoid acidic discharge. The process effluent shall be properly neutralized and 100% recycled.
3. The electrolytic effluent to be generated from electrolysis process shall be passed through electrolyte recovery plant for regeneration of electrolytic solutions i.e., Zn and chromium, etc.
4. Process effluent from rolling mill shall pass through CETP for proper treatment to meet the prescribed standard.
5. Adequate capacity of bagfilters / wet scrubber with heat exchanger shall be provided at annealing furnaces of CAL, vertical heat treatment furnace of CGL to control PM emissions within 30 mg/Nm³ through stacks.
6. Necessary preventive measures shall be taken so that the ambient air quality including noise shall conform to National ambient air quality standards and standards for noise in industrial area. Ambient air quality at the boundary of the plant premises shall meet the prescribed standards of the Board.
7. The industry shall install pulse jet type bag filter to treat flue gas generated from the holding furnaces in rolling mill and the Particulate Matter emission from stack attached to bag filter shall not exceed 100 mg/Nm³. The height of stack attached to the APC device shall not be less than 20 meters from the ground level.
8. Work zone area including the internal roads surrounding the plant shall be concreted. Vacuum cleaning systems must be deployed for cleaning of shop floors, roads etc to minimize fugitive

dust emission.

F. Captive Power Plant (1x300 MW)

1. Adequate capacities of ESPs shall be provided at each gas fired/ coal- fired boilers to control PM emissions through stacks within 30 mg/Nm³.
2. Steam condensate recovery of boilers must be atleast 97-98%.
3. Coal circuit of CF boilers must be equipped with BF's/ DF's to control fugitive emissions from crushers, screens and transfer points of conveyors. All belt conveyors should be provided with hood covers.
4. The cooling water of gas-based turbine shall be 100% recycled through cooling tower.
5. Industry has to provide adequately designed acoustic enclosures around GT units to control noise level within prescribed limit.
6. During steam blowing process of the plant adequate nos. of steam silencers should be provided to minimize noise nuisances in its surroundings.

G. Cement plant: Portland Slag cement plant (1 x 3.75 MTPA) and Pozzolona Portland cement plant (1 x 1.25 MTPA), Batching Plant (4 x 60 m³/Hr)

1. The emission standards issued by the MoEF &CC, Govt, of India vide G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May 2016 and 10th May, 2016 regarding cement plants with respect to particulate matter, SO₂ and NO₂ shall be complied with followed as hot gases from HAG will be vented through cement mill main stack.
2. Cement from the cement grinding section shall be transported to the storage silo through air slides and bucket elevator and same shall be of closed type and connected to the dust extraction system.
3. The project proponent shall monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours average exposures) with permissible limits based on free silica content of air borne respirable dust.
4. All vertical roller mills must be equipped with adequate capacity of bagfilters to control PM emissions within 30 mg/Nm³ through stacks.
5. All raw materials i.e. slag, ash, gypsum, clinker, etc must be stored under covered sheds with dust suppression systems to avoid fugitive dust emissions and contamination of run off.
6. Pneumatically conveying system must be provided for conveying of grinded raw materials, cements to their respective silos. All storage silos must be provided with adequate capacity of bagfilters to avoid fugitive dust emissions.
7. Cement Bagging and loading sections should be provided with bag filters to avoid any fugitive dust emissions.

H. Tar Processing plant (2,00,000 TPA), Benzol Refining Plant (66,700 TPA)

1. Benzene, toluene, ethylbenzene, and xylenes (BTEX), which are volatile organic compounds (VOCs) to be generated from Benzol Refining Plant should be routed through VOC absorption media like activated carbon and shall comply with the prescribed standards.
2. Vent of all storage tanks shall be connected through condensers and the industry has to ensure for efficient functioning of water chilling system, so that no VOC shall be emitted either from Primary/secondary condensers.
3. Adequate steps should be taken for installations of VOC monitors along with alarming systems to detect fugitive emissions of benzenes and VOCs from leaks of valves, pumps, flanges, pressure relief valves, and aging storage tanks.
4. Industry must provide adequate capacity ETP/ to be routed through CETP for proper treatment

- of the condensate water generated from distillation, blow down of cooling tower, cleaning & washing activities so as to meet the prescribed standards of the Board.
5. Condensate effluent shall be recycled 100% in the process. All process area should be provided with separate effluent containment facilities to avoid any discharge & contamination of run-off with phenols and cyanides.
 6. Contaminated wastewater to be generated from process water, tank cleaning, and cooling systems of Benzol plants should be routed through CETP for proper treatment and 100% recycled.
 7. A masonry holding pool shall be provided inside the Plant premises to store the treated effluent which remains unutilized for irrigation/dust suppression, particularly during monsoon.
 8. Proponent shall strictly maintain Zero liquid discharge (ZLD).
- I. Auxiliaries units: Calcined Lime Plant (4 x 600 TPD), Oxygen Plant (Air separation) (3 x 2100 TPD), Incinerator (10 TPD)**
1. Adequate capacity of bag filters shall be installed at lime crushing and screening units and at transfer points of conveyors to control fugitive lime dust emissions.
 2. Adequately designed ESP shall be installed at lime kilns to control PM emissions through stacks within 30 mg/Nm³.
 3. Cooling water of air separation plant shall be 100% recycled through cooling tower and cooling tower blow down shall be treated in CETP for reuse as makeup water in the plant.
 4. Adequate capacity of wet scrubber shall be provided at stack attached to secondary chamber of incinerator to control PM emissions through stacks within 30 mg/Nm³.
 5. Scrubber effluent shall be 100% recycled through ETP.
- J. Construction facilities: Batching plant (4 x 60 m³/Hr), DG sets (10x500 KVA), 4 nos. Construction & Storage Yards**
1. Air compressor and DG set should be acoustically designed and should be housed in appropriate acoustic enclosures so that the noise level shall conform to the prescribed norms.
 2. The height of the stack connected to DG set of capacity less than and up to 800 KVA shall conform to the following:
 $H = h + 0.2\sqrt{KVA}$
 i) h-Height of the building where it is installed in meter
 ii) KVA -Capacity of DG set
 iii) H - Height of the stack in meter above ground level.
 3. Diesel power generating sets proposed as source of back-up power during operation phase shall be enclosed model and conform to Rules made under the Environment (Protection) Act. 1986. Use of Blended Bio Diesel / 100% Bio Diesel DG Set shall be explored to reduce emissions of PM, CO & VOC.
 4. The proponent shall strictly comply with the Fuel Policy of the State, promulgated by Department of Forest, Environment and Climate Change, vide Order No- FE-ENV3-ENV-0014-2017-7485, Dt. 12-04-2021 and subsequent amendment vide 7271 Dt. 12-04-2023 for use of fuel.
 5. The dust suppression systems of adequate capacity shall be provided to control fugitive emissions at feeding hoppers, Screens and all transfer points of conveyors of raw material handling and conveying systems, Turbo Pan Mixer and Transit Mixer including raw materials stacking yards of Batching Plants.
 6. The fines storage silos of batching plant shall have an adequate dust collection system, such as a bag filter. Dust collected from a bag filter shall be used for construction purposes or suitably

reused to maintain efficiency above 99% and to comply with the prescribed emission norms. Bags should be changed periodically to maintain efficiency. Height of stack attached to bag filter shall be either minimum eleven (11) meters or two (02) meters higher than the highest node of the plant (whichever is higher). Bag filters shall have proper enclosure with a monitoring gate with gasket for monitoring purposes in the filter section and hopper area.

7. All the material transfer points including the silo discharge point and silo tops shall be covered from all sides and connected to air pollution control devices like bag filters and cyclones.

SOLID & HAZARDOUS WASTE MANAGEMENT

1. Industry shall develop facilities for storage of Hazardous & Other wastes to be generated for & such wastes shall be disposed off in accordance with the Provisions under Hazardous and other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and its amendments thereof.
2. The proponent shall establish **Mechanized Organic Waste Converter** under covered shed for processing of Municipal Solid Waste generated from the plant to produce organic manure which may be used for development of green belt. Excess manure if any may be sold in local market.
3. The food wastes and vegetable wastes should be processed in an **anaerobic digester** to produce Bio-gas for use as fuel in common facilities. Digester Residues shall be utilized for developing greenbelt.
4. The iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process shall be briquetting, agglomeration and reused in sinter plant.
5. The Solid Slag processing and Metal recovery units shall be provided for recovery of metals from BOF slag.
6. All Refectory wastes and other solid wastes as expected to be generated from Basic Oxygen Furnace, Ladle and other furnaces, Coke oven, Blast furnace, Lime and Dolo Kiln, reheating furnaces in mills, furnaces for power steam generation shall be managed by segregation, recycling and disposal in designated dump site.
7. The ETP Sludge shall processed through filter press & dispose off as per the SOP and/or guidelines developed CPCB and/ or SPCB.
8. Industrial Premises should be declared as **Single Use Plastic Free area**.
9. All the topsoil excavated during construction activities shall be used for backfilling & remaining stored for use in horticulture/landscape development within the project site.
10. The unit shall develop dedicated facilities for 90 days storage of Hazardous & Other Wastes to be generated & such wastes shall be disposed off in accordance with the provisions under the Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 and its amendments thereof.
11. The Industry shall dispose of Solid wastes & Hazardous wastes to be generated from the plant as per following manners in order to comply with the Circular Economy concept:

Solid Waste	Quantity (TPA)	Reuse / Recycle
Steel making slag	13,96,000	Recovery of metallics and non metallics for in plant use, Balance utilize as railway ballast
BF Slag	13,50,000	Reuse in Cement plant
Ash	3,13,333	Reuse in captive cement plant & Brick Plant/ production of FAB sand/ sintered fly ash coarse aggregate
Flue dust	3,00,000	Reuse in agglomeration/ sinter plant
Mill scale /sludge	1,50,000	Reuse through recyclers

Bottom ash	80,000	Road making
Hazardous Waste	Quantity (TPA)	Reuse / Recycle
Zinc Dross	3000	Sold to authorized recycler
Used and waste Oil	1500	Sold to authorized recycler
Chrome sludge	300	TSDF



MEMBER SECRETARY

To

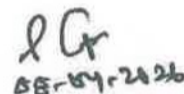
Shri Anil Kumar Singh, President
M/s JSW Utkal Steel Limited,
At- Polang, Bayanala, Kandha,
Gobindpur, Dhinkia, Nuagaon
and Jatadhar village, District - Jagatsinghpur



Memo No. 5361 / Date 08-04-2026

Copy forwarded to:

1. The Collector & District Magistrate, Jagatsinghpur
2. The Director, Factories & Boiler, Bhubaneswar
3. The DFO, Jagatsinghpur
4. CTO Cell, SPC Board, Bhubaneswar
5. The Regional Officer, SPC Board, Paradeep
6. Guard file



SR. ENVIRONMENTAL ENGINEER



257

ANNEXURE-R8/3 4X

E-mail: paribesh1@ospboard.org
Website: www.ospboard.org

STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit - VIII
Bhubaneswar - 751012

IND-II-CTE-7172

Date: 19.04.2024

No. 5828 /

Through online/
By speed post

CONSENT TO ESTABLISH ORDER

In consideration of the online application no. **4791744** for obtaining Consent to Establish of **M/s JSW Utkal Steel Limited** the State Pollution Control Board is pleased to convey its Consent to Establish Under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 for **Development of All Weather Multi-Cargo Greenfield Captive Jetty(ies) of Handling Capacity 52 MTPA (Inbound Traffic- 24.93 MTPA and Outbound Traffic- 27.00 MTPA)** having following activities and facilities;

Sl. No.	Commodity	Capacity (Million Tonnes /Year)
Import Cargo through Ship		
1	Coking Coal	8.84
2	Anthracite Coal	0.32
3	PCI Coal	2.84
4	Quartzite	0.03
5	Thermal Coal	4.5
6	Limestone (SMS)	2.4
7	Dolomite (SMS)	0.4
8	Bentonite	0.3
9	Clinker	5.3
Total		24.93
Export Cargo through ship		
11	Finished Steel, Pellets/Iron Ore Concentrate, fines and Cement, etc.	27.00
Total		27.00
Total (Import Cargo + Export Cargo)		51.93 (say 52.00)
12	- Berths: 10 numbers, each of length 340m (total length 3400 m) - Breakwaters: South Breakwater (1600 m approx.) and North Breakwater (1200 m approx.) - Navigation Channel: Depth- 20 m, Length- 13 km (approx.) and Width- 250 m to 380 m - Dredging: Capital dredging- 30 million m³ and Maintenances Dredging- 3 million m³	

on the river bank of Jatadhari near Jatadhari Muhan adjacent to Integrated Steel Plant (ISP) of M/s JSW Utkal Steel Limited with a project cost of Rs. 2054.32 Crores over Acs 170.0 Dec at Village- Jatadhari, Tehsil- Ersama (Plot No and Khata no as mentioned in the application form) in the District of Jagatsinghpur with the following conditions;

GENERAL CONDITIONS:

1. This Consent to Establish is valid for the Port activity as mentioned in the application form. This order is valid for five years, which means the proponent shall commence construction of the project within a period of five years from the date of issue of this order. If the proponent fails to do substantial physical progress of the project within five years, then a renewal of this consent to establish shall be sought by the proponent.
2. The industry shall comply to the provisions of Environment Protection Act, 1986 and the rules made thereunder with their amendments from time to time such as the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 as amended from time to time, Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 etc. and amendments thereunder. The industry shall also comply to the provisions of Public Liability Insurance Act, 1991, if applicable.
3. The industry is to apply for grant of Consent to Operate under Section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board. No operational activity shall commence prior to installation of all pollution control measures.
4. **This Consent to Establish is subject to statutory and other clearances from Govt. of Odisha and/or Govt. of India, as and when applicable.**

SPECIAL CONDITIONS:

A. GENERAL:

1. The proponent shall carry out the development of captive jetty facility with handling capacity of 52 MTPA complying the conditions imposed in the Environmental and CRZ Clearance (EC) granted by the MoEF&CC, Govt. of India vide EC Identification No. EC22A033OR177049, dated 12th April, 2022 and the Re-validated Environmental and CRZ Clearance vide F. No. 10-68/2018-IA.III dated 31st January, 2024.
2. The proponent shall comply with conditions stipulated under CRZ clearance from F&E Dept., Govt. of Odisha vide Letter No. OCZMA/56/2020-41/OCZMA dated 01.02.2021 for development of all weather, multi-cargo, greenfield, Captive Jetty(ies) of handling capacity 52 MTPA in Jatadharimuhan River, District- Jagatsinghpur of JSW Steel Ltd. All conditions including beach nourishment and littoral drift management with measures to control erosion shall be implemented as per DHI Report.
3. The proponent shall comply with the conditions stipulated under Forest Clearance.
4. The proponent shall provide temporary storage space for storage of solid and Hazardous waste before final disposal. The Hazardous and E-waste shall be stored under covered shed on concrete floor.

5. The proponent shall submit six monthly progress reports every year (i.e. June and December) for construction activity of the project to the Board (at Head Office and Regional Office) for record and verification.
6. An undertaking shall be submitted to the Board before construction activities so that the installed capacity shall not exceed the Consent to Establish capacity.
7. This Consent to Establish is granted for the capacity as mentioned above and any expansion in the capacity, change or modification in the process, addition, alternation any nature has to be undertaken with prior approval of the Board. For any change in the site or area, fresh Consent to Establish has to be obtained from the Board. The proponent shall carry out construction activity as per approved lay out map (**Annexure-I**). If the proponent wants to change the approved plant layout map, they can submit a modified plant layout map with adequate justification for such modification.
8. The proponent shall implement the pollution control measures and safeguards as proposed in the Environment Management Plan (EMP).
9. The proponent shall obtain permission from concerned authorities for drawal of surface water and ground water.
10. The construction and demolition waste to be generated from the proposed project shall be disposed of in accordance with the provision under "Construction & Demolition Wastes Management Rules 2016".
11. The proponent shall comply to the provisions of E-Waste (Management) Rules, 2016 and shall handover e-waste to authorized collection centers/ register dismantlers/ recyclers for proper disposal of e-waste.
12. The industry shall comply with the Plastic Waste Management Rule, 2016 and amendment thereafter so as to prohibit use of single use plastic within its premises and plastic waste generated if any from the industry as well as colony shall be sent to nearby cement kiln for co-processing and/or authorized recyclers.
13. The construction shall be carried out with fly ash bricks and fly based products. If the fly ash bricks are not available locally the construction may be carried out with other bricks with prior intimation to the concerned Regional Office of SPC Board. A statement indicating use of fly ash bricks during construction period shall be submitted to the Board quarterly for record.
14. Temporary colonies of work force shall be established if any sufficiently away from the High Tide Line and proper sanitation including toilets and bathrooms shall be provided to the inhabitants to prevent abuse of the inter tidal area. Sewage and other wastes generated in these settlements shall not be released to the creek. Work force shall be provided with adequate fuel to discourage them from cutting nearby tree for firewood.
15. 'Good House Keeping' shall be maintained by developing available human resources through conducting routine in house workshops on different activities for the betterment of the environment and welfare of the workers and organization.
16. The proponent shall provide full-fledged environmental management cell and the head of environmental management cell shall report directly to the organization head. A detailed proposal in this regard shall be submitted to the Board.

17. Present & post project land use pattern of acquired land shall be prepared and submitted to the Board for reference.
18. The socioeconomics especially related to fishing, infrastructure development etc. shall be studied, as large-scale infrastructure like road network, railways, power lines etc. are likely to develop in the vicinity of area due to this project.
19. For catering the requirement of local fishermen for their movement the proponent shall develop fishing jetty and unhindered fishing boat movement vis-a-vis movement of ships as proposed in the EMP.
20. Monitoring of the marine environment shall be conducted regularly during dredging and post-dredging and necessary corrective measures shall be carried out to conserve the marine environment.
21. General clearing along the corridor used for construction related activities, adjacent inter tidal areas, creeks etc. shall be undertaken and all the discarded materials must be removed from the site and aesthetic quality of the surroundings restored, once the construction operations are completed.
22. Detailed construction activities taken up in the CRZ area shall be submitted to the Board at the time of grant of Consent to Operate.
23. Details of transportation and its impact during transportation of the stones and other construction material for the construction of the groynes breakwaters and other Jetty facilities shall be submitted to the Board.
24. Green belt shall be developed in area as provided in the project details with a native tree species in accordance with CPCB guidelines. A green belt of adequate width and density preferably with local species along the periphery of the unit shall be raised so as to provide protection against particulates and noise. The greenbelt shall inter alia cover the entire periphery of the Jetty. It must be ensured that at least 33% with tree density of 2500 trees per ha (or 1000 trees per acre) of the total land area shall be under green and under no circumstances this land earmarked for green belt shall be used for any other purpose.
25. Open storage yards for dust prone materials shall be surrounded with green belt. Plantation and development of lawns shall be undertaken to minimize the effect of dust and noise.
26. The project proponent shall take up adequate measure for routine health checkup of its employees / workers and the people residing in the neighborhood of the area free of cost.
27. Vehicle hired for bringing construction material at site shall be in good condition and shall have valid Pollution Under Check (PUC) Certificate and to confirm to applicable air and noise emission standards and shall be operated only during non-peak hours.
28. The Board may impose further conditions or modify the conditions stipulated in this order during installation and/or at the time of obtaining consent to operate and may revoke this clearance in case the stipulated conditions are not implemented and /or any information suppressed in the application form.
29. No production activity shall commence prior to installation of all pollution control measures. In case it is found that the industry is operated without installation of

adequate pollution control equipment, direction for closure shall be issued u/s 31 (A) of Air (PCP) Act, 1981 and/or u/s 33(A) of Water (PCP) Act, 1974 as the case may be without any further notice.

B. WATER POLLUTION:

30. The domestic wastewater generated from the Jetty shall be treated in sewage treatment plant of adequate capacity to meet the following standards as notified by the MoEF&CC, Govt. of India vide G.S.R. 1265 (E), dated 13.10.2017. The treated water shall be reused for dust suppression, irrigating greenbelt etc. Under no circumstances there shall be any discharge of treated wastewater to outside the Jetty premises.

Sl. No.	Parameters	Standards
1.	pH	6.5-9.0
2.	BOD (mg/l)	30
3.	TSS (mg/l)	<100
4.	Fecal Coliform (MPN/100ml)	< 1000

31. Construction of captive jetty facilities shall be strictly as per the approved layout plan which includes the berths, breakwaters and other facilities. No diversion of natural course of river shall be made without prior permission from the competent authority.
32. The proponent shall install Effluent Treatment Plant (ETP) of adequate capacity to treat the wastewater generated in the berth, stack yard and other areas of the Jetty and the entire wastewater shall be channelized to the ETP through proper drainage network.
33. The proponent shall adopt Zero Liquid Discharge (ZLD) concept and under no circumstances the wastewater shall be discharged to outside the premises.
34. The proponent shall construct dedicated drainage system for runoff water in the whole Jetty area and the runoff water shall be treated properly and reused for sprinkling at potential dust generated sources and roads and the surplus water shall be discharged to outside of the Jetty premises after meeting the prescribed standard for discharge to inland surface water.
35. The proponent shall not discharge untreated runoff water from the berths including other Jetty areas to the sea harbor under any circumstances.
36. Strict prohibition shall be practiced against the discharge of ballast water and sediment in the dock water, estuarine / near shore waters to prevent introduction of exotic microorganisms including pathogens in the local waters.
37. Steps shall be taken towards the maintenance of health of the study area, critical locations shall be carefully selected and designed as monitoring sites for periodic monitoring with respect to water quality, sediment quality and flora and fauna.
38. Leachate from storage of chemicals and other materials having toxic content if any shall be collected and treated properly. Care shall be taken to prevent ground water contamination.
39. An effective oil spillage containment and management plan shall be evolved with the involvement of various agencies like Port, State Pollution Control Board, Indian Coast Guard Oil Companies etc.

40. The sea water in the harbor area shall meet the water quality criteria for SW-IV class of sea water as given below:
- | | | |
|---|---|---|
| a) pH | : | 6.5 – 9.0 |
| b) Dissolved oxygen | : | 3.0 mg/l or 40% of saturation value
whichever is high. |
| c) Colour and odour | : | No visible colour or offensive odour |
| d) Floating matter, Oil &
Grease and scum including
petroleum product | : | 10 mg/l |
| e) Fecal coliform | : | 500 MPN/100 ml |
| f) BOD (3 days) at 27°C | : | 5 mg/l |
41. Maximum precaution shall be taken to minimize spreading of sediments to the surrounding area which will otherwise increase turbidity in the river.
42. Mechanized wheel washing system with recirculation facility shall be provided at the exit point of the Jetty so that that the trucks/vehicles involved in the material handling/transportation reach the work area and the tyres are washed before they leave these areas.
43. Surface runoff treatment system consisting of sedimentation through settling tanks/ ponds in series shall be installed to meet the discharge norms and shall be recycled/ discharged specially during monsoon period in exigency.
44. Rainwater harvesting shall be followed by utilizing the rainwater collected from the roof of the administrative buildings for recharging of ground water within the premises as per the concept and practices prescribed by CPCB.

C. AIR POLLUTION:

45. Necessary preventive measures shall be taken during construction phase so that the ambient air quality including noise shall conform to National ambient air quality standards and standards for noise in industrial area as per **Annexure-II & III**. Ambient air quality at the boundary of the Jetty premises shall meet the prescribed standards of the Board as per **Annexure- II**. The ambient air quality monitoring report shall be submitted to the Board every month.
46. The ambient air quality including noise shall be within the prescribed norms of Environment Protection Act, 1986 for industrial area and **continuous ambient air quality monitoring stations** around the Jetty premises shall be set up to monitor PM₁₀, PM_{2.5}, SO₂, NO₂, CO and other important parameters within at least to the distance in down wind direction and where maximum ground level concentration is anticipated. The exact location of the monitoring stations shall be finalized in consultation with the State Pollution Control Board.
47. Effective and efficient pollution control measures like covered conveyors dust suppression/ dust extraction systems at stack yards (coal, iron ore and other bulk cargo) and water sprinkling arrangements commencing from ship unloading to stacking to evacuation shall be undertaken. Coal and iron ore stack yards shall be bounded by thick two-tier green belts with proper drains and wind barriers whenever necessary.
48. A windshield with a wire mesh fencing with fast growing creepers up to a height of 12 - 14 m shall be provided along around the coal/other bulk stack yard and the boundary

of the Jetty premises facing residential / commercial areas to avoid fugitive dust emission to the surroundings.

49. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.
50. Diesel power generating sets proposed as source of back-up power during operation phase shall be enclosed model and conform to Rules made under the Environment (Protection) Act. 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Only Diesel fuels (HSD & LDO) shall be used. Use of low Sulphur diesel shall be explored.
51. Air compressor and DG set should be acoustically designed and should be housed in appropriate acoustic enclosures so that the noise level outside it shall conform to the prescribed norms.
52. The height of the stack attached to DG sets of capacity more than 1000 KVA shall be maximum of the following in meter:
 - (i) $14 Q^{0.3}$, Q=Total SO₂ emission from the plant in kg/hr.
 - (ii) Minimum 6 m above the building where generator set is installed.
 - (iii) 30 m.
53. The proponent shall strictly comply with the Fuel Policy of the State, promulgated by Department of Forest, Environment and Climate Change, vide Order No- FE-ENV3-ENV-0014-2017- 7485 Dt. 12-04-2021 and subsequent amendment vide 7271 Dt. 12-04-2023 for use of fuel.
54. The proponent shall follow the direction issued by SPCB, Odisha vide letter no. 17927, Dt. 14.11.2023 regarding "Retrofitting of operational DG Sets for emission control in the State of Odisha", on operation of DG Sets having capacity of 50 KVA and above.
55. Adequate firefighting system shall be adopted at the coal stock yard to control fire hazard if any.
56. On site living rooms of workers and the gas storage shall be well apart to minimize the risk of accidents. Adequate safety measures including provision of gas mask and ear plugs during cutting operation and medical treatment facilities for workers in case of accidents shall be ensured. The working place shall be provided with better sanitation facilities.
57. To minimize noise and vibration, heavy machinery shall be properly installed and maintained. Personal protection in the form of earplugs shall be made available to the workers, who are exposed to the high noise areas like workshop, dumper house, crane operation, tipper shop etc.
58. The noise level during pilling, transport and erection of structures etc. shall be kept at a minimum through proper lubrication, muffing and modernization of equipments.
59. While loading and unloading coal and other bulk materials through grab and conveyers, the dropping height shall be minimized.
60. Adequate dust suppression and/or extraction system shall be installed at all potential dust generating points in ore/mineral handling system to minimize fugitive emission.

61. The collection and handling of raw materials shall be carried out in closed conveyor so that fugitive emission will be minimum.
62. Provision of deployment of truck mounted water cannon as required, for the periodic cleaning of internal roads shall be undertaken.
63. Adequate number of Mechanized Road Sweepers shall be deployed for cleaning of internal roads within the premises.
64. There shall be a provision to construct longitudinal covered shed for storage of dusty cargoes in order to completely arrest the fugitive emissions during handling of cargo.

D. SOLID WASTE:

65. The dredged sand shall be used for reclamation purpose and the balance quantity shall be disposed of at offshore designated site as per model report and EMP.
66. A dedicated temporary storage facility of used / waste oil, grease etc. shall be provided inside the Jetty premises for final disposal.
67. Mechanisms shall be evolved for proper monitoring, effective handling and transportation of hazardous chemicals. The mechanism for import of hazardous wastes may be strengthened with involvement of the State Pollution Control Boards.
68. An effective wastes collection, treatment and disposal mechanism shall be evolved for incoming ships as well as waste generated within the Jetty that include ballast and bilge water, solid waste, cargo waste, kitchen waste, toilet effluent, packing materials, floating debris, construction left over materials etc.
69. Effective monitoring system shall be evolved to check the release of spillage of oil into the dock waters, estuary and near shore water by ship and also during transportation. Proper collection and treatment facilities shall be provided for proper treatment and disposal after achieving the standards.
70. A comprehensive Disaster Management Plan shall be formulated involving concerned agencies considering various aspects like containment of large-scale oil spillage, accidental hazards arising from handling of dangerous / inflammable cargoes as well as natural calamities. The Oil spill contingency plan shall be implemented as proposed in EIA and EMP.
71. The industry shall obtain authorization for management of Hazardous Waste as per provisions of Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 as amended from time to time.
72. Municipal Solid Waste generated from the Jetty shall be disposed off as per the Solid Waste Management Rules, 2016 and amendment thereafter.
73. Intermediate storage area of adequate capacity for temporary storage of Municipal Solid Waste (MSW) shall be developed inside the premises before handing over the MSW to the approved agency for final disposal.
74. Bio-degradable solid waste shall be sent to the organic waste converter for preparation of manure. Non-biodegradable wastes like polythene bags, metal, ceramic waste, glass etc. shall be stored in separate garbage bin and will be sent to authorized agency for final disposal.

75. Spoils generated from dredging activity shall be cautiously disposed of in a proper manner to avoid contamination as recommended in the EMP.
76. The solid waste generated as ETP sludge and from other sources shall be suitably disposed of without causing any public nuisance or environmental contamination.

Encl.: Approved Captive Jetty layout map (Annexure-I) and Annexure-II & III




MEMBER SECRETARY

To,

**The President,
M/s JSW Utkal Steel Limited,
Jatadhar Bhawan, Madhuban,
City- Paradeep, District- Jagatsinghpur, Odisha
PIN- 754142**

Memo No. _____ / Date: _____ /

Copy forwarded to:

1. The District Magistrate & Collector, Jagatsinghpur
2. The Director, Factories & Boiler, Bhubaneswar
3. The DFO, Jagatsinghpur
4. The Regional Officer, SPCB, Odisha, Paradeep
5. CTO Cell, SPCB, Odisha, Bhubaneswar
6. HWM Cell, SPCB, Odisha, Bhubaneswar
7. Guard File


ADDL. CHIEF ENV. ENGINEER

ANNEXURE-II**SCHEDULE**

(see rule 3(l) and 4(l))

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area/Zone	Limits in dB(A) Leq *	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Note

1. Day time shall mean from 06:00 A.M. to 10:00 P.M.
2. Night time shall mean from 10:00 P.M. to 06:00 A.M.
3. Silence zone is defined as an area comprising not less than 100 meters around hospitals, educational institutions and courts. The silence zones are zones which are declared as such by the competent authority.
4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

*dB(A) Leq 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.

Leq : It is an energy mean of the noise level, over a specified period.

[F. No. Q-14012/1/96-CPA]
VIJAI SHARMA, R. Secy.

NATIONAL AMBIENT AIR QUALITY STANDARDS
CENTRAL POLLUTION CONTROL BOARD
NOTIFICATION

New Delhi, the 18th November, 2009

No. B-29016/20/90/PCI-L—In exercise of the powers conferred by Sub-section (2) (h) of section 16 of the Air (Prevention and Control of Pollution) Act, 1981 (Act No.14 of 1981), and in supersession of the Notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998, the Central Pollution Control Board hereby notify the National Ambient Air Quality Standards with immediate effect, namely:-

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time Weighted Average	Concentration in 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), µg/m ³	Annual* 24 hours**	50 80	20 80	- Improved West and Gaeke - Ultraviolet fluorescence
2	Nitrogen Dioxide (NO ₂), µg/m ³	Annual* 24 hours**	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3	Particulate Matter (size less than 10µm) or PM ₁₀ , µg/m ³	Annual* 24 hours**	60 100	60 100	- Gravimetric - TOEM - Beta attenuation
4	Particulate Matter (size less than 2.5µm) or PM _{2.5} , µg/m ³	Annual* 24 hours**	40 60	40 60	- Gravimetric - TOEM - Beta attenuation
5	Ozone (O ₃), µg/m ³	8 hours** 1 hour**	100 180	100 180	- UV photometric - Chemiluminescence - Chemical Method
6	Lead (Pb), µg/m ³	Annual* 24 hours**	0.50 1.0	0.50 1.0	- AAS/ICP method after sampling on EPM 2000 or equivalent filter paper - ED-XRF using Teflon filter
7	Carbon Monoxide (CO), mg/m ³	8 hours** 1 hour**	02 04	02 04	- Non Dispersive Infra Red (NDIR) spectroscopy
8	Ammonia (NH ₃), µg/m ³	Annual* 24 hours**	100 400	100 400	- Chemiluminescence - Indophenol blue method

(1)	(2)	(3)	(4)	(5)	(6)
9	Benzene (C ₆ H ₆) µg/m ³	Annual*	05	05	- Gas chromatography based continuous analyzer - 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 104 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.

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

SANT PRASAD GAUTAM, Chairman
(ADVT-III/4/18409/Ext.)

Note: The notifications on National Ambient Air Quality Standards were published by the Central Pollution Control Board in the Gazette of India, Extraordinary vide notification No(s) S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998.