



CONSENT ORDER  
M/S ARDENT STEEL LIMITED

BY REGD. POST WITH AD

## STATE POLLUTION CONTROL BOARD, ODISHA

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

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

Phone-2561909, Fax: 2562822, 2560955 E-mail: [paribesh1@ospcboard.org](mailto:paribesh1@ospcboard.org), Website: [www.ospcboard.org](http://www.ospcboard.org)

### CONSENT ORDER

No. 4400 / IND-I-CON-6363 Dt. 28.03.2024 /

CONSENT ORDER NO. 2716.

Sub : Consent for discharge of sewage and trade effluent under Section 25/26 of Water (PCP) Act, 1974 and emission under Section 21 of Air (PCP) Act, 1981 for operation of the plant.

Ref : Your online application ID No. 5440778, Dtd.01-03-2024 and online reply dated 12.03.2024.

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

Name of the Industry: M/s Ardent Steel Limited

Name of the Occupier & Designation: Dr. Subhasish Das, Director

Address: Phuljhar, Suakati, Dist-Keonjhar-758018

This consent order is valid for the period from 01.04.2024 to 31.03.2029.

#### Details of Products Manufactured:

Sl. No.	Product	Quantity
1.	Iron Ore Pellet	8,50,000 Metric Tonne /Annum
2.	Producer Gas	25,800Nm <sup>3</sup> /Hr
3.	Flux grinding unit	5 Metric Tonnes/Hour

This consent order is valid for the specified outlets, discharge quantity and quality of effluents (ii) quantity of emission and its quality, specified chimney / stack (iii) quantity of solid waste and its disposal as specified below.

This consent is granted subject to the General and Special Conditions stipulated below:



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

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KLD or KL/hr	Prescribed Standard					
				pH	BOD (mg/l)	COD (mg/l)	TSS (mg/l)	Fecal Coliform (MPN/100ml)	O & G (mg/l)
01.	Process effluent through settling tanks	Recycled back to process (900 KLD)	NIL	-	-	-	-	-	-
02.	Outlet of STP (15 KLD) for domestic wastewater of plant premises	To be used for gardening	15 KLD	6.5-9.0	30	-	100	1000	-

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

Chimney Stack No.	Description of Stack	Stack height (m)	Quantity of emission (m <sup>3</sup> /hr)	Prescribed Standard (mg/Nm <sup>3</sup> )		
				PM	SO <sub>2</sub>	NO <sub>x</sub>
1	Bag filter at proportioning system (Iron ore fines and coke bunker)	30	8,000	30	-	-
2	Bag filter at raw material transfer point of mixer (Mixture building)	30	4,000	30	-	-
3	Multi cyclone and ESP at travelling grate and rotary kiln	52	-	50	-	-
4	Bag filter at Flux grinding unit	26	6,500	30	-	-

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

Sl. No.	Type of Solid waste	Quantity generated (TPD)	Quantity to be reused on site (TPD)	Quantity to be reused off site (TPD)	Quantity disposed off (TPD)	Description of disposal site.
1.	Cinder from Gas Producer Plant	-	-	-	-	Used for low land filling inside plant premises





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**D. GENERAL CONDITIONS FOR ALL UNITS**

1. The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground for liable to review/variation/revocation of the consent order under section 27 of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
2. The occupier would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control equipment / system etc.
3. The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order without any negligence on his/her part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law.
5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
9. An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
11. The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
12. Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
13. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
14. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
15. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed impervious.
16. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
17. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
18. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the occupier must adopt alternate satisfactory treatment and disposal measures.
19. The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.
20. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
21. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling





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and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Acts or Rules made therein.

22. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.
  23. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
  24. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
  25. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner so as to meet the standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
  26. In case of episodal discharge/emissions the occupier shall take immediate action to bring down the emission within the limits prescribed by the Board and stop the operation of the plant if required. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
  27. The applicant shall keep the premises and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
  28. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned shall be reported to the Headquarters and Regional Office of the Board by E-mail within 2 hours of its occurrence.
  29. The occupier has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
  30. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the shall be disposed off scientifically to the satisfaction of the Board.
  31. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
    - i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
    - ii) Controlled incineration, wherever possible in case of combustible organic material.
    - iii) Composting, in case of bio-degradable material.
  32. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
  33. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
  34. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
  35. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
  36. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
  37. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
  38. The occupier shall comply to the conditions stipulated in CTE order issued by Odisha State Pollution Control Board and conditions stipulated in Environmental Clearances issued by MoEF&CC, Govt. of India.
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**E. SPECIAL CONDITIONS:**

1. The proponent shall achieve the enhancement in the Pelletization Plant from 6,90,000 TPA to 8,50,000 TPA in the existing facility. Under no circumstances the unit shall install any additional plant facilities to achieve the said enhanced production capacity.
  2. The industry shall comply the conditions imposed in the "No Increase in Pollution Load" certificate issued vide Boards' Letter No.13039, dtd.22.10.2020 and Consent to Establish order issued vide Boards' letter No.1164, dtd.29.01.2021.
  3. Adequate dust suppression arrangements shall be provided at raw material handling, product handling, coal handling system and other potential dust generating points to control fugitive emission.
  4. The unit shall operate all the air pollution control devices effectively all the time so as to meet the prescribed standard for particulate matter emission as mentioned in Section-B of the consent order.
  5. The cinder generated from the Gas Producer Plant shall be dumped in an area earmarked for the same. Sprinkling arrangement shall be provided at the disposal site so that the ash does not become air borne during dry season.
  6. The industry shall take expeditious steps to make entire internal roads black topped / concreted by June, 2019 and permanent high pressure water spraying system shall be installed for regular spraying of water on roads and work zone to minimize fugitive emission.
  7. The project proponent shall install 24X7 Continuous Emission Monitoring System at process stack to monitor stack emission w.r.t. the standards prescribed in E(P) Rule, 1986 as amended from time to time and connected to SPCB and CPCB online server.
  8. The height of the stack connected to DG sets of capacity more than 800 KVA shall conform to the following:
    - i)  $14Q^{0.3}$ , Q = Total SO<sub>2</sub> emission from the plant in kg/hr.
    - ii) Minimum 6m. above the building where generator set is installed.
    - iii) 30 m.
  9. The height of the stack connected to DG set of capacity less than and upto 800 KVA shall conform to the following:
    - i)  $H = h + 0.2\sqrt{KVA}$
    - ii) h = Height of the building where it is installed in meter
    - iii) KVA = Capacity of DG set
    - iv) H = Height of the stack in meter above ground level.
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10. All DG sets installed before 1.7.2004 shall be scrapped. DG sets complying with either State-I or Stage-II emission norms shall reduce Particulate Matter Emission by 70% by installing RECD without affecting any other emission parameters as per the CPCB guidelines and Board's letter vide No.17927, dated 14.11.2023, in this regard.
11. Cooling tower blow down water shall be taken to storage pond and shall be used in green pellet making / dust suppression.
12. Wastewater generated during regeneration of DM plant shall be neutralized and reused for dust suppression.
13. The wastewater generated in slurry form from rotary dryer, indorating furnaces transfer points, pellet screens circuit etc. shall be treated in two nos. of thickeners and supernatant water shall be reused. Thickener underflow shall be taken to vacuum disc filter from where filter cake shall be separated and filtrate shall be collected in sump for reuse.
14. The unit shall provide garland drain around raw material and product stock yard. Run off generated from this area shall be passed through adequate settling arrangement so that the final discharge meets the prescribed general standard for discharge notified under E(P) Act, 1986.
15. The following actions shall be taken for better environmental management in consultation with Regional Officer, SPCB, Keonjhar.
  - i. Dust suppression arrangements and surface runoff management facilities shall be provided at the iron ore stack stored towards the north direction of plant near hazardous storage.
  - ii. Dust suppression arrangements and surface runoff management facilities shall be provided at product stackyard in southwest direction of near weighbridge.
  - iii. Deep rain cuts were observed in the fine stockyard. Necessary corrective action shall be taken.

An action plan in this regard shall be submitted by 15.04.2024 at the Regional Office as well at Head Office of SPCB, Odisha.

16. The industry shall install separate Sewage Treatment Plant (STP) of adequate capacity for treatment of domestic wastewater generated from the colony.
  17. There shall not be any discharge of phenolic wastewater from the catch pit. The wastewater generated from the sealing of producer gas plant shall be recycled back to the process after separation of tar.
  18. The tar so generated shall be stored off in a concrete pit under a cover shed.
  19. The unit shall develop a thick green belt around the factory premises.
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20. The unit shall obtain necessary clearance from CGWA for using ground water for industrial and domestic uses.
21. The unit shall obtain authorization from the Board under the Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016.
22. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
23. The Board reserves the right to revoke / refuse consent to operate / to modify or stipulate additional conditions as deemed appropriate at any time during period for which consent is granted.
24. Rain water harvesting shall be followed by utilizing the rain water 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.

To

**The Director,  
M/s Ardent Steel Ltd.,  
At/PO: Phuljhar, Via: Suakati,  
Dist: Keonjhar, Odisha**

**CHIEF ENV. ENGINEER (M)  
STATE POLLUTION CONTROL BOARD, ODISHA**

Memo No. \_\_\_\_\_ /Dt. \_\_\_\_\_ /

Copy forwarded to :

- i. Regional Officer, State Pollution Control Board, **Keonjhar**
- ii. District Collector, **Keonjhar**
- iii. DDM, Mines, **Joda, Keonjhar**
- iv. CES, Central Laboratory, Bhubaneswar
- v. ACEE, H.S.M. Cell, (Head Office)
- vi. Consent Register

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





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**Annexure-I**

**GENERAL STANDARDS FOR DISCHARGE OF  
ENVIRONMENTAL POLLUTANTS PART – A : EFFLUENTS**

Sl. No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Coastal Areas
		(a)	(b)	(c)	(d)
1.	Colour & odour	Colourless/ Odourless as far as practicable	--	See 6 of Annex-1	See 6 of Annex-1
2.	Suspended Solids (mg/l)	100	600	200	a. For process wastewater – 100 b. For cooling water effluent 10% above total suspended matter of influent.
3.	Particular size of SS	Shall pass 850	--	--	--
5.	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6.	Temperature	Shall not exceed 5°C above the receiving water temperature	--	--	Shall not exceed 5°C above the receiving water temperature
7.	Oil & Grease mg/l max.	10	20	10	20
8.	Total residual chlorine	1.0	--	--	1.0
9.	Ammonical nitrogen (as N) mg/l max.	50	50	--	50
10.	Total Kjeldahl nitrogen (as NH <sub>3</sub> ) mg/l max.	100	--	--	100
11.	Free ammonia (as NH <sub>3</sub> ) mg/l max.	5.0	--	--	5.0
12.	Biochemical Oxygen Demand (5 days at 20°C) mg/l max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/l max.	250	--	--	250
14.	Arsenic (as As) mg/l max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/l max.	0.01	0.01	--	0.001
16.	Lead (as pb) mg/l max.	01.	1.0	--	2.0
17.	Cadmium (as Cd) mg/l	2.0	1.0	--	2.0





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Sl. No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Coastal Areas
		(a)	(b)	(c)	(d)
	max.				
18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0	--	1.0
19.	Total Chromium (as Cr) mg/l max.	2.0	2.0	--	2.0
20.	Copper (as Cu) mg/l max.	3.0	3.0	--	3.0
21.	Zinc (as Zn) mg/l max.	5.0	15	--	15
22.	Selenium (as Se) mg/l max.	0.05	0.05	--	0.05
23.	Nickel (as Ni) mg/l max.	3.0	3.0	--	5.0
24.	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25.	Fluoride (as F) mg/l max.	2.0	15	--	15
26.	Dissolved Phosphates (as P) mg/l max.	5.0	--	--	--
27.	Sulphide (as S) mg/l max.	2.0	--	--	5.0
28.	Phenolic compounds as (C <sub>6</sub> H <sub>5</sub> OH) mg/l max.	1.0	5.0	--	5.0
29.	Radioactive materials				
	a. Alpha emitter micro curie/ml.	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>8</sup>	10 <sup>7</sup>
	b. Beta emitter micro curie/ml.	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>7</sup>	10 <sup>6</sup>
30.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
31.	Manganese (as Mn)	2 mg/l	2 mg/l	--	2 mg/l
32.	Iron (Fe)	3 mg/l	3 mg/l	--	3 mg/l
33.	Vanadium (as V)	0.2 mg/l	0.2 mg/l	--	0.2 mg/l
34.	Nitrate Nitrogen	10 mg/l	--	--	20 mg/l



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**Annexure-II****NATIONAL AMBIENT AIR QUALITY STANDARDS**

Sl. No.	Pollutants	Time Weighted Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Annual *	50	20	- Improved west and Gaeke
		24 Hours **	80	80	- Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Annual *	40	30	- Modified Jacob & Hochheiser (Na-Arsenite)
		24 Hours **	80	80	- Chemiluminescence
3.	Particulate Matter (size less than 10µm) or PM <sub>10</sub> µg/m <sup>3</sup>	Annual *	60	60	- Gravimetric
		24 Hours **	100	100	- TOEM - Beta Attenuation
4.	Particulate Matter (size less than 2.5µm) or PM <sub>2.5</sub> µg/m <sup>3</sup>	Annual *	40	40	- Gravimetric
		24 Hours **	60	60	- TOEM - Beta Attenuation
5.	Ozone (O <sub>3</sub> ) µg/m <sup>3</sup>	8 Hours **	100	100	- UV Photometric
		1 Hours **	180	180	- Chemiluminescence - Chemical Method
6.	Lead (Pb) µg/m <sup>3</sup>	Annual *	0.50	0.50	- AAS/ICP method after sampling on EMP 2000 or equivalent filter paper.
		24 Hours **	1.0	1.0	- ED-XRF using Teflon filter
7.	Carbon Monoxide (CO) mg/m <sup>3</sup>	8 Hours **	02	02	- Non Dispersive Infra Red (NDIR)
		1 Hours **	04	04	Spectroscopy
8.	Ammonia (NH <sub>3</sub> ) µg/m <sup>3</sup>	Annual*	100	100	- Chemiluminescence
		24 Hours**	400	400	- Indophenol Blue Method
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) µg/m <sup>3</sup>	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 <sup>3</sup>	Annual*	01	01	- Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), ng/m <sup>3</sup>	Annual*	06	06	- AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.	Nickel (Ni), ng/m <sup>3</sup>	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.