

COMPLIANCE REPORT FOR

THE PERIOD OCTOBER'2019 – MARCH'2020

ENVIRONMENTAL CLEARANCE

EC Letter No. J-11011/112/2013-IA.II(I), date 13th February, 2020



Ardent steel limited

Vill: Phuljhar, Block: Banspal, Dist: Keonjhar, Odisha.

Name of the Project: M/s. Ardent Steel Ltd. Village: Phuljhar, Tehsil: Telkoi, Dist.: Keonjhar, Odisha

Clearance Letter/s No. & Date: EC Letter No. J-11011/112/2013-IA.II(I), Dated 13th February, 2020

Period of Compliance: October, 2019 to March, 2020

A. SPECIFIC CONDITIONS:

Sl. No.	Conditions	Compliances
i.	Ground water extraction shall be limited to 500 KLD at present. No additional ground water extraction is permitted.	Ground water extraction will not exceed 500 KLD at any time.
ii.	No slime pond is permitted.	There will be no slim pond within the plant premises.
iii.	Green belt shall be developed covering 33% of the area in a time frame of two years.	Out of total plant area of 36.781ha, around 12.13 ha (32.97% of total area) of land has green belt. In the Year 2019-20, 3740 seedling are planted by the company and 6000 seedlings are distributed to villagers. These saplings of Amla, Neem, Guava, Bel, Mangao, Jamun, etc are procured form Forest Dept. nursery at Anjar, Belda, Telkoi & Chamra and planted in the plant campus and distributed to villagers.
iv.	Provision for industrial vacuum cleaner to control the fugitive emissions shall be made.	Truck Mounted unit with dual vacuum cleaner is provided. The suction system comprising of one centre brush, two side brushes and two suction heads; one operating at a time having a container volume of 6.5 cum.
v.	Particulate emissions from the stacks shall be less than 30 mg/Nm ³ with bag house as APCD. Emission from ESP shall be less than 50 mg/Nm ³ .	We will stick to the norms. Efforts will be made to reduce the emission from stack to less than 30 mg/Nm ³ by installing, i) new dust collecting bags in each bag house, ii) new ID Fan to increase suction volume iii) new heat-exchanger (air cooler) to increase cooling surface area. Following the previous EC, we had taken all necessary steps to keep the emission from stack to less than 50 mg/Nm ³ .

B. GENERAL CONDITIONS:

Sl. No.	Conditions	Compliances
I.	Statutory Compliance:	
1.	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.	The copy of Consent to Establish & Consent to Operate are given as Annexure – 1 & Annexure- 2.
2.	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.	We are in the process of making agreement with Govt. of Odisha to obtain necessary permission to draw water for use in project.
3.	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.	Right now the HW waste authorization of the company has expired and the renewal of the same is under process at Odisha SPCB, Bhubaneswar.
II.	Air Quality Monitoring and Preservation:	
1.	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31 st March 2012(Integrated iron & Steel); G.S.R 414 (E) dated 30 th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7 th December 2015 (Thermal Power Plants)as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Online stack monitoring facility for the stack has been installed but Due to the frequent network problem data transmission is not always successful. Sufficient air pollution control devices such as ESP, Bag house, Bag filters etc. are provided to keep the pollution level control for all the units. Such as ESPs and Bag Filters etc.
2.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986	Fugitive emissions are being controlled as per permissible limit issued by Ministry and also regularly monitoring has been plasticized. Fugitive emission is monitored every month and the monitoring result in this 6month period is attached as Annexure – 3.

3.	The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and S02 and NOX in reference to S02 and NOX emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120 ⁰ each), covering upwind and downwind directions.	The ambient air quality is within the standards stipulated by CPCB. AAQ monitoring results are submitted to Ministry's Regional Office at Bhubaneswar/ OPCB/ CPCB once in six month. The result is attached in Annexure – 4.
4.	Sampling facility at process stacks shall be provided as per CPCB guidelines for manual monitoring of emissions.	Complied. Stack monitoring result are in Annexure - 5. No new monitoring was carried out after issue of this EC.
5.	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report	Installation of 24 X 7 air monitoring device to monitor air emission is completed. All hardware arrangement which includes a dedicated PC, Software for connecting to Forbes Marshall Cloud Server, cabling of Modem to transmit data to CPCB is ready. Due to the frequent network problem data transmission is not always successful.
6.	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 stack emission and fugitive emission standards.	Bag filters are installed at 6 locations in the plant to control fugitive emission. The detail is attached as Annexure- 6. Apart from it, ESP is connected with Travelling Grate and 60 water sprinklers are there within the plant premises.
7.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Agreed. We have started the process to install them.
8.	Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.	All recommendation for CREP guidelines will be implemented.
9.	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.	Fugitive emissions are being controlled as per permissible limit issued by Ministry and also regularly monitoring has been plasticized. Water Sprinklers have been installed along the road as well as loading and unloading points, all roads inside the plant are concrete, a 10 KL capacity mobile water tanker has been engaged to sprinkle water on road, truck mounted sweeper machine

		is engaged to clean dust. Truck Mounted unit with dual vacuum cleaner is provided. The suction system comprising of one centre brush, two side brushes and two suction heads; one operating at a time having a container volume of 6.5 cum.
10.	Recycle and reuse iron ore fines, coal fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.	In our pellet production process, a small amount of solid waste (like solid waste generated from the furnace includes Dust generated from ESP, Dust generated from de-dusting units & broken green pellets) are generated, which are recycled back to the feed system of the pellet plant. Negligible amount of coal ash is being generated from coal gasifier which is being used for levelling of low laying areas in the plant premises.
11.	The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.	Complied. Vehicles having valid PUC certificates are engaged in transporting raw materials / finished products. These materials are transported in covered condition.
12.	Wind shelter fence and chemical spraying shall be provided on the raw material stock.	Agreed
13.	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.	Complied.
C.	Water Quality Monitoring and Preservation:	
1.	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31 st March 2012 (Integrated iron & steel); G.S.R 414 (E) dated 30 th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7 th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	We have initiated the process to install continuous effluent monitoring system

2.	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Ground water monitoring data during the six month period is attached in Annexure – 7.
3.	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report	There is no effluent discharge. It is a zero liquid discharge unit. Hence, no continuous effluent quality monitoring system required.
4.	The project proponent shall provide the ETP to meet the standards prescribed in G.S.R 277 (E) dated 31 st March 2012 (Integrated iron & steel); G.S.R 414 (E) dated 30 th May 2008 (Sponge Iron) as amended from time to time; SO. 3305 (E) dated 7 th December 2015 (Thermal Power Plants) as amended from time to time.	The small quantity of wastewater being generated from the process is treated in settling ponds by gravitational settling and the treated water being recycled in the process only. So effluent treatment plant is not required for this process.
5.	Adhere to 'Zero Liquid Discharge	Agreed, we are following it. No wastewater is discharged outside the plant premises.
6.	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards	A 15 KL STP is there within the plant premises to treat domestic waste water.
7.	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.	The water seepage near the storage yard is being collected through garland drains and routed to a concrete pit. The treated water is recycled into the process.
8.	Tyre washing facilities shall be provided at the entrance of the plant gates	Not yet installed but we have initiated the process to install it.
9.	The project proponent shall practice rainwater harvesting to maximum possible extent	Rain Water Harvesting and Ground Water Recharge Plan for our plant has been prepared. The rain water from the plant surface, raw material (coal, Iron Ore, etc.) storage yard being collected in a settling pond and utilizing for sprinkling & gardening purpose.
10.	Water meters shall be provided at the inlet to all unit processes in the steel plants	Not yet installed but we have initiated the process to install it.
11.	The project proponent shall make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water	Agreed.

D.	Noise Monitoring and Prevention:	
1.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report	The noise level monitoring result during this six month period is within the standards stipulated by CPCB. Attached in Annexure – 8 .
2.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time	Accepted. The monitoring result of noise shows that the levels are under 75 dB(A) during day time and 70 dB(A) during night time.
E.	Energy Conservation Measures:	
1.	Use hot charging of slabs and billets/blooms as far as possible.	Not applicable
2.	Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300 ⁰ C. .	In our case the flue gas temperature from the pellet plant does not exceed 300 ⁰ C. Hence no waste heat recovery boiler has been installed.
3.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly; iv. Provide LED lights in their offices and residential areas.	We have initiated the process to install Solar power generation on roof tops of buildings. Order has been placed for procurement. Yes, LED lights are provided in our offices and residential areas.
F.	Waste Management:	
1.	Used refractories shall be recycled as far as possible	Agreed
2.	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil	Coal ash will be utilized for cement making, brick making, low /waste land reclamation, etc. and the unutilized portion will be used to backfill nearby abandoned mines. 5 oil collection pits at 3 locations are of provided of total capacity 83.58 KL.
3.	The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanizing, chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.	The hazardous wastes (HW) generated in plant are used oil and oil sludge. These wastes are collected and regular stored in HW storage area marked as per Hazardous and other waste Management and Trans-boundary Movement) Rule 2016. Coal ash which is a solid waste has been analyzed and found that it does not contain any hazardous waste. Right now the HW waste authorization of the company has expired and the

		renewal of the same is under process at Odisha SPCB, Bhubaneswar.
4.	Kitchen waste shall be composted or converted to biogas for further use	The biodegradable material including kitchen waste are composted and used as manure inside the premises.
G. Green Belt:		
1.	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.	Out of total plant area of 36.781ha, around 12.13 ha (32.97% of total area) of land has green belt. In the Year 2019-20, 3740 seedling are planted by the company and 6000 seedlings are distributed to villagers. These saplings of Amla, Neem, Guava, Bel, Mangao, Jamun, etc are procured from Forest Dept. nursery at Anjar, Belda, Telkoi & Chamra and planted in the plant campus and distributed to villagers.
2.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.	Agreed. We are preparing it.
H. Public Hearing and Human Health issues:		
1.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	We have already submitted On Site Emergency Plan for earlier for the existing plant.
2.	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	Agreed; We will care carry out the heat stress analysis for the workmen. Operators are provided with ear muffs and ear plugs. Full body Asbestos Apron issued to employees working at heat zone.
3.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	The present EC is for enhancement in production capacity of pelletizing plant of 6, 00,000 TPA to 6, 90,000 TPA by using the 4 th unused filter press. Other sections of the plant will be able to cope up with the expanded capacity due to inherent design margin to the tune of extra 20%. Thus no new construction is required and hence no housing facility for labourer arises.

4.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Agreed. Occupational Health Surveillance of the workers has been done on a regular basis. Few such examination reports are attached as ANNEXURE – 9 for reference.
I.	Corporate Environment Responsibility (CER):	
1.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.	Agreed. We will comply to the provision of Corporate Environment Responsibility
2.	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/ violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	Yes, We have a well laid down environmental policy, which is given in detail in the EAI /EMP report.
3.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	Yes, an Environment Cell is operating at the Plant, which is headed by the Plant-in-charge.
4.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.	Agreed. An effective Environment Management Plan (EMP) is developed for the project. Details in the approved EIA /EMP report.
5.	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	We will abide by it.
6.	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Iron and Steel plants shall be implemented.	Agreed.

J.	Miscellaneous:	
1.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District of State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Yes, it has already been intimated to public and also submitted a copy to the State Pollution Control Board, Odisha. The news of obtaining EC was published in two local newspapers.
2.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Complied.
3.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Complied. The compliance report, monitoring report, CSR Activities are being uploaded on company's website (ardentsteel.com) regularly.
4.	The project proponent shall monitor the criteria pollutants level namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Agreed.
5.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the Ministry of Environment, Forest and Climate Change at environmental clearance portal.	Complied. The six monthly EC compliance report is being submitted regularly.
6.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	The environmental statement for each financial year is submitted regularly to SPCB, Odisha. The copy of the environmental statement for the year 2019-20 is attached as Annexure – 10 .
7.	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	The project has been completed before obtaining the EC. Financial Closure : 21 .10.2008 Financial approval : 21.10.2008 Purchase of 1 st land : 31.05.2008 Proof for the above already submitted earlier.
8.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Yes, we are following the stipulations of SPCB, Odisha strictly.

9.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Agreed. In a phase wise manner as per CER we will implement them.
10.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF & CC).	Agreed, our future expansion will only be carried out after prior approval of MoEF & CC.
11.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under provisions of Environment (Protection) Act, 1986.	Agreed.
12.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Agreed.
13.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement the conditions.	Agreed.
14.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	Agreed. All cooperation shall be extended to the officer(s) of the Regional Office during any visit in future.
15.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	Agreed.
16.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	There is no appeal against this EC near the National Green Tribunal.

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PHOTOGRAPHS



Photographs of Plantation

ANNEXURE

Annexure 1	Consent to Establish
Annexure 2	Consent to Operate
Annexure 3	Fugitive Emission Monitoring Result
Annexure 4	Ambient Air Quality Monitoring Result
Annexure 5	Stack Monitoring Result
Annexure 6	Details of Bag Filters
Annexure 7	Ground Water Quality Monitoring Result
Annexure 8	Noise Level Monitoring Result
Annexure 9	Health check-up report of few staff
Annexure 10	Annual Environment Statement



**OFFICE OF THE
STATE POLLUTION CONTROL BOARD, ODISHA**

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]

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

**By SpeedPost/
Through online**

No. 3563 /

IND-II-CTE-6405

Date 20.03.2020 /

CONSENT TO ESTABLISH ORDER

In consideration of the online application no. **2953532** for obtaining Consent to Establish for **M/s Ardent Steel Ltd.**, 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 enhancement in production capacity of existing Pelletization plant from 6,00,000 TPA to 6,90,000 TPA through process optimization without installation of any plant and machineries inside the existing plant premises, At-Phuljhar** (Plot nos. & Khatanos. as mentioned in application form) in the district of **Keonjhar** 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.
2. 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.
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.
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:

1. The proponent shall carryout production activity with the capacity as per Environmental Clearance granted by MoEF&CC, Govt. of India vide letter No. J-11011/112/2013-IA.II(I), dated 13.02.2020.



2. The proponent shall achieve the enhancement in Pelletization Plant from 6,00,000 TPA to 6,90,000 TPA in the existing facility. Under no circumstances the unit shall install any additional plant facilities to achieve the said enhanced production capacity.
3. 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.
4. **The unit shall obtain NOC from CGWA for using of ground water as prerequisite for getting Consent to Operate of State Pollution Control Board, Odisha.**
5. The industry shall implement the pollution control measures and safeguards as proposed in the Environment Management Plan (EMP).
6. The unit shall obtain authorization from the Board under Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and amended thereafter.
7. The proponent shall comply to the provisions of E-Waste (Management) Rules, 2016 and amendment thereafter and shall handover e-waste to authorized collection centers/ register dismantlers/ recyclers for proper disposal of e-waste.
8. The proponent shall comply the plastic waste generated from the premises as per the Plastic Waste Management Rules, 2016 and amendment thereafter.
9. There shall not be any additional land requirement for the proposed expansion as proposed.
10. The proponent shall adopt Zero Liquid Discharge (ZLD) concept and under no circumstances the waste water shall be discharged to outside the factory premises.
11. The additional air pollution load if any shall be managed with the existing air pollution control measures. The unit shall upgrade the existing air pollution control measures if they unable to achieve the emission standards.
12. The unit shall adopt good housekeeping practice as the project will handle lot of iron ore fines, lime stone / dolomite and coke etc.
13. Additional solid waste generated due to proposed expansion shall be disposed off at designated solid waste dump site area without causing any public nuisance.
14. The unit shall abide by the provisions of Environment (Protection) Act, 1986 and rules framed thereunder.
15. 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.


20/3/2022
CHIEF ENV. ENGINEER

To
The Director,
M/s Ardent Steel Limited.,
Plot No.208, Mining Road, New colony
District - Keonjhar.



Memo No. _____ /Dated _____ /

Copy forwarded to:

1. The Collector and District Magistrate, Keonjhar.
2. The District Industries Centre, Keonjhar.
3. The Director, Factories & Boiler, Bhubaneswar.
4. The DFO, Keonjhar.
5. The Regional Officer, SPC Board, Keonjhar.
6. Consent to Operate Section, SPC Board, BBSR
7. Hazardous Waste Management Cell, SPC Board, Bhubaneswar.
8. Copy to Guard file.


SR. ENV. ENGINEER-L-I



CONSENT ORDER

Page 1

BY REGD. POST WITH AD

STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]
Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012
Phone-2561909, Fax: 2562822, 2560955

CONSENT ORDER

No. 3808 / IND-I-CON-6363 Dt. 21.03.2020 /

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.3016904, Dtd.20-03-2020

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 supersedes the earlier consent order issued vide Board's Letter No.3010, dtd.25.03.2019.

Details of Products Manufactured

Sl. No.	Product	Quantity
1.	Iron Ore Pellet	6,90,000 Metric Tonne /Annum
2.	Producer Gas	25,800Nm ³ /Hr
3.	Flux grinding unit	5 Metric Tonnes/Hour

This consent order is valid for the period upto 31.03.2024

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:



CONSENT ORDER

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 ³ /hr)	Prescribed Standard (mg/Nm ³)		
				PM	SO ₂	NO _x
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



CONSENT ORDER

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 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.



CONSENT ORDER

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. The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.
27. There shall not be any fugitive or episodal discharge from the premises.
28. In case of such 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.
37. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
38. 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.
39. 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.
40. In case the consent fee is revised during this period, the occupier 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.
41. 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.
42. The occupier shall abide by E(P) Act, 1986 and Rules framed there-under.
43. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate.



CONSENT ORDER

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

1. The applicant shall analyse the effluent / emissions and Ambient Air Quality every month through approved laboratory for the parameters indicated in TABLE- 'B', 'C' & Part -'B' as mentioned in this order and shall furnish the report thereof to the Board on monthly basis.
2. The following information shall be forwarded to the Member Secretary on or before 10th of every month.
 - a) Performance / progress of the treatment plant.
 - b) Monthly statement of daily discharge of domestic and/or trade effluent.
3. Non-compliance with effluent limitations
 - a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
 - i) Causes of non-compliance
 - ii) A description of the non-compliance discharge including its impact on the receiving waters.
 - iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
 - iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
 - v) Steps to be taken by the applicant too prevent the condition of non-compliance.
 - b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
 - c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.
4. Proper housekeeping shall be maintained inside the factory premises including process areas by a dedicated team.
5. The occupier must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.
6. The occupier shall engage dedicated qualified manpower to ensure continuous and effective operation of online stack / Ambient Air Quality / Effluent monitoring stations for maintenance of database, real time data transfer to SPCB server, data analysis and co-ordination with concerned personnel of process units for taking corrective measures in case of non-compliances and to respond to the instructions of SPCB in this matter.



CONSENT ORDER

E. SPECIAL CONDITIONS:

1. The proponent shall achieve the enhancement in the Pelletization Plant from 6,00,000 TPA to 6,90,000 TPA in the existing facility. Under no circumstances the unit shall install any additional plant facilities to achieve the said enhanced production capacity.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. The height of the stack connected to DG set shall conform to the following
$$H = h + 0.2\sqrt{KVA}$$
Where, h= Height of the building where it is installed in meter
KVA = Capacity of DG set
H = Height of the stack in meter above ground level.
8. Cooling tower blow down water shall be taken to storage pond and shall be used in green pellet making / dust suppression.
9. Wastewater generated during regeneration of DM plant shall be neutralized and reused for dust suppression.
10. 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.
11. 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.



CONSENT ORDER

12. The industry shall install separate Sewage Treatment Plant (STP) of adequate capacity for treatment of domestic wastewater generated from the colony.
13. 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.
14. The tar so generated shall be stored off in a concrete pit under a cover shed.
15. The unit shall develop a thick green belt around the factory premises.
16. The unit shall obtain necessary clearance from CGWA for using ground water for industrial and domestic uses.
17. The unit shall obtain authorization from the Board under the Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016.
18. 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.
19. 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.
20. 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**


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

Memo No. 3809 /Dt. 21.03.2020

Copy forwarded to :

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




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



CONSENT ORDER

GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENT POLLUTANTS**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 ⁰ C above the receiving water temperature	--	--	Shall not exceed 5 ⁰ C above the receiving water temperature
7.	Oil & Grease mg/l max.	10	20	10	20
8.	Total residual chlorine	1.0	--	--	1.0
9.	Ammonical nitrogen (as N) mg/l max.	50	50	--	50
10.	Total Kjeldahl nitrogen (as NH ₃) mg/l max.	100	--	--	100
11.	Free ammonia (as NH ₃) mg/l max.	5.0	--	--	5.0
12.	Biochemical Oxygen Demand (5 days at (20 ⁰ 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



CONSENT ORDER

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

CONSENT ORDER

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

Sl. No.	Pollutants	Time Weighed Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO ₂), 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 Hours **	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 EMP 2000 or equivalent filter paper. - ED-XRF using Teflon filter
7.	Carbon Monoxide (CO) mg/m ³	8 Hours ** 1 Hours **	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
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.



CENTRE FOR ENVOTECH AND MANAGEMENT CONSULTANCY PVT. LTD.

ANNEXURE - 3

An ISO 9001-2008 & OHSAS 18001:2007 Certified Company, Empanelled with OCCL, ORSAC and SPCB of Govt. of Odisha
Accredited by NABET, QCI for EIA Studies as 'A' Category Consultant Organization. Empanelled with PCCF(Wildlife) & CWLW, Odisha
Enlisted in Construction Industry Development Council (CIDC) established by the Planning Commission (Govt. of India)
MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Reference No : CEMC/ASL/Oct-F-01/19
Name of Company : Ardent Steel Ltd.
Sample Description : Fugitive Air
Date of Monitoring : 09.10.2019
Date of Receiving : 10.10.2019
Date of Analysis : 11.10.2019
Sample Collected by : Mr. B Samantaray

FUGITIVE EMISSION TEST REPORT

Sl. No.	LOCATION	RESULT	
		RSPM ($\mu\text{g}/\text{m}^3$)	SPM ($\mu\text{g}/\text{m}^3$)
1	Proportioning System (Ash & Coke Fines Bunker)	178	948
2	Raw Material Transfer point of Mixture (Mixture Building)	130	844
3	Ball Mill (Cool Grinding)	156	902
4	Ball Mill (Flux & Coke Grinding)	152	894
5	Finished Product Transfer points and plant de-dusting system	148	886
6	Travelling Grate & Rotary Kiln	140	872
MoEF Standard		--	2000*

* The standard is applicable at 10 m distance from the source


Authorized Signatory



Notes:

- The results relate only to the sample tested.
- This Test Report shall not be reproduced wholly or in part without prior written consent of the laboratory.
- The samples received shall be destroyed after two weeks from the date of issue of the Test Report unless specified otherwise.
- This Test Report shall not be used in any advertising media or as evidence in the court of Law without prior written consent of the laboratory.

Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, DPR, Wildlife Management Plan, Hazardous & Safety Studies, RS& GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

Regd. Office: 1st Floor, N-5/305, IRC village, Nayapalli, Bhubaneswar-751015, Odisha, India, Mobile: 9861032826
E-mail- cemc_consultancy@yahoo.co.in, cemc122@gmail.com, website: www.cemc.in, Landline: 0674-2360344.

Laboratory At: Plot No. 800/1274, Johal, Pahal, Bhubaneswar-752101,
E-mail: cemclab@yahoo.in, Mobile: 9937631956, 8895177314



CENTRE FOR ENVOTECH AND MANAGEMENT CONSULTANCY PVT. LTD.

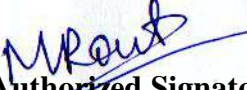
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Enlisted in Construction Industry Development Council (CIDC) established by the Planning Commission (Govt. of India)
MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Reference No : CEMC/ASL/Nov-F-01/19
Name of Company : Ardent Steel Ltd.
Sample Description : Fugitive Air
Date of Monitoring : 06.11.2019
Date of Receiving : 07.11.2019
Date of Analysis : 07.11.2019
Sample Collected by : Mr. B Samantaray

FUGITIVE EMISSION TEST REPORT

Sl. No.	LOCATION	RESULT	
		RSPM ($\mu\text{g}/\text{m}^3$)	SPM ($\mu\text{g}/\text{m}^3$)
1	Proportioning System (Ash & Coke Fines Bunker)	196	891
2	Raw Material Transfer point of Mixture (Mixture Building)	158	902
3	Ball Mill (Cool Grinding)	184	879
4	Ball Mill (Flux & Coke Grinding)	179	911
5	Finished Product Transfer points and plant de-dusting system	151	834
6	Travelling Grate & Rotary Kiln	117	819
MoEF Standard		--	2000*

* The standard is applicable at 10 m distance from the source


Authorized Signatory



Notes:

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Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, DPR, Wildlife Management Plan, Hazardous & Safety Studies, RS& GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

Regd. Office: 1st Floor, N-5/305, IRC village, Nayapalli, Bhubaneswar-751015, Odisha, India, Mobile: 9861032826
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Enlisted in Construction Industry Development Council (CIDC) established by the Planning Commission (Govt. of India)
MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Reference No : CEMC/ASL/Dec-F-01/19
Name of Company : Ardent Steel Ltd.
Sample Description : Fugitive Air
Date of Monitoring : 13.12.2019
Date of Receiving : 14.12.2019
Date of Analysis : 14.12.2019
Sample Collected by : Mr. B Samantaray

FUGITIVE EMISSION TEST REPORT

Sl. No.	LOCATION	RESULT	
		RSPM ($\mu\text{g}/\text{m}^3$)	SPM ($\mu\text{g}/\text{m}^3$)
1	Proportioning System (Ash & Coke Fines Bunker)	221	934
2	Raw Material Transfer point of Mixture (Mixture Building)	193	988
3	Ball Mill (Cool Grinding)	203	1008
4	Ball Mill (Flux & Coke Grinding)	196	979
5	Finished Product Transfer points and plant de-dusting system	173	923
6	Travelling Grate & Rotary Kiln	187	937
MoEF Standard		--	2000*

* The standard is applicable at 10 m distance from the source


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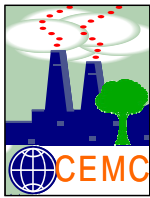


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Laboratory At: Plot No. 800/1274, Johal, Pahal, Bhubaneswar-752101,
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Enlisted in Construction Industry Development Council (CIDC) established by the Planning Commission (Govt. of India)
MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Reference No : **CEMC/ASL/Jan-F-01/20**
Name of Company : **Ardent Steel Ltd.**
Sample Description : **Fugitive Air**
Date of Monitoring : **11.01.2020**
Date of Receiving : **13.01.2020**
Date of Analysis : **13.01.2020**
Sample Collected by : **Mr. B Samantaray**

FUGITIVE EMISSION TEST REPORT

Sl. No.	LOCATION	RESULT	
		RSPM ($\mu\text{g}/\text{m}^3$)	SPM ($\mu\text{g}/\text{m}^3$)
1	Proportioning System (Ash & Coke Fines Bunker)	243	971
2	Raw Material Transfer point of Mixture (Mixture Building)	212	995
3	Ball Mill (Cool Grinding)	231	1123
4	Ball Mill (Flux & Coke Grinding)	249	1048
5	Finished Product Transfer points and plant de-dusting system	207	967
6	Travelling Grate & Rotary Kiln	194	908
MoEF Standard		--	2000*

* The standard is applicable at 10 m distance from the source


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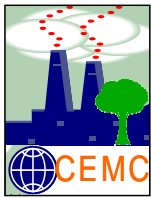
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Reference No : CEMC/ASL/Feb-F-02/20
Name of Company : Ardent Steel Ltd.
Sample Description : Fugitive Air
Date of Monitoring : 07.02.2020
Date of Receiving : 08.02.2020
Date of Analysis : 08.02.2020
Sample Collected by : Mr. S Behera

FUGITIVE EMISSION TEST REPORT

Sl. No.	LOCATION	RESULT	
		RSPM ($\mu\text{g}/\text{m}^3$)	SPM ($\mu\text{g}/\text{m}^3$)
1	Proportioning System (Ash & Coke Fines Bunker)	261	1016
2	Raw Material Transfer point of Mixture (Mixture Building)	248	1047
3	Ball Mill (Cool Grinding)	256	1104
4	Ball Mill (Flux & Coke Grinding)	273	1095
5	Finished Product Transfer points and plant de-dusting system	214	982
6	Travelling Grate & Rotary Kiln	262	1038
MoEF Standard for SPM		--	2000*

* The standard is applicable at 10 m distance from the source

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Reference No : CEMC/ASL/Mar-F-03/20
Name of Company : Ardent Steel Ltd.
Sample Description : Fugitive Air
Date of Monitoring : 11.03.2020
Date of Receiving : 13.03.2020
Date of Analysis : 13.03.2020
Sample Collected by : Mr. S Behera

FUGITIVE EMISSION TEST REPORT

Sl. No.	LOCATION	RESULT	
		RSPM ($\mu\text{g}/\text{m}^3$)	SPM ($\mu\text{g}/\text{m}^3$)
1	Proportioning System (Ash & Coke Fines Bunker)	302	1097
2	Raw Material Transfer point of Mixture (Mixture Building)	286	1073
3	Ball Mill (Cool Grinding)	294	1161
4	Ball Mill (Flux & Coke Grinding)	273	1124
5	Finished Product Transfer points and plant de-dusting system	245	1031
6	Travelling Grate & Rotary Kiln	301	1107
MoEF Standard for SPM		--	2000*

* The standard is applicable at 10 m distance from the source

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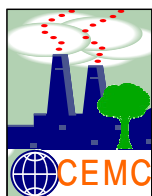


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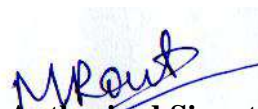
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Reference No : **CEMC/ASL/Oct-A-01/19**
 Name of Company : **Ardent Steel Ltd.**
 Sample Description : **Ambient Air**
 Date of Monitoring : **09.10.2019**
 Date of Receiving : **10.10.2019**
 Date of Analysis : **11.10.2019**
 Sample Collected by : **Mr. B Samantaray**

AMBIENT AIR QUALITY TEST REPORT (24 HOURLY AVERAGE)

Sl. No.	LOCATION	MONITORING REPORT					
		PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)
1	At the boundary near the water harvesting pond (East Direction)	60.6	31.6	12.2	16.4	0.5	<20
2	At the Boundary near ESP (South Direction)	58.4	28.2	11.8	15.9	0.4	<20
3	At the Boundary near Coal Fines Stock yard (North Direction)	63.5	34.1	12.6	16.8	0.5	<20
4	Near Ball mill, Iron ore fines stock yard	69.8	37.2	12.5	16.4	0.5	<20
NAAQ Standard		100 ($\mu\text{g}/\text{m}^3$)	60 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	4.0 (mg/m^3)	400 ($\mu\text{g}/\text{m}^3$)


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 Notes:

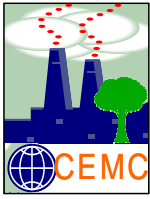


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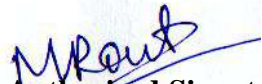
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Reference No : CEMC/ASL/Nov-A-01/19
 Name of Company : Ardent Steel Ltd.
 Sample Description : Ambient Air
 Date of Monitoring : 06.11.2019
 Date of Receiving : 07.11.2019
 Date of Analysis : 07.11.2019
 Sample Collected by : Mr. B Samantaray

AMBIENT AIR QUALITY TEST REPORT (24 HOURLY AVERAGE)

Sl. No.	LOCATION	MONITORING REPORT					
		PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)
1	At the boundary near the water harvesting pond (East Direction)	58.9	30.1	11.4	15.2	0.4	<20
2	At the Boundary near ESP (South Direction)	62.7	32.5	12.1	16.4	0.5	<20
3	At the Boundary near Coal Fines Stock yard (North Direction)	61.2	31.8	11.9	15.7	0.4	<20
4	Near Ball mill, Iron ore fines stock yard	62.6	34.3	11.7	15.4	0.4	<20
NAAQ Standard		100 ($\mu\text{g}/\text{m}^3$)	60 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	4.0 (mg/m^3)	400 ($\mu\text{g}/\text{m}^3$)


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 Notes:

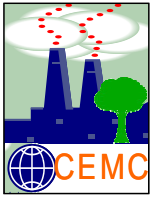


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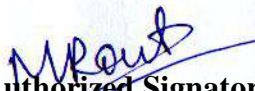
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Reference No	:	CEMC/ASL/Dec-A-01/19
Name of Company	:	Ardent Steel Ltd.
Sample Description	:	Ambient Air
Date of Monitoring	:	13.12.2019
Date of Receiving	:	14.12.2019
Date of Analysis	:	14.12.2019
Sample Collected by	:	Mr. B Samantaray

AMBIENT AIR QUALITY TEST REPORT (24 HOURLY AVERAGE)

Sl. No.	LOCATION	MONITORING REPORT					
		PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)
1	At the boundary near the water harvesting pond (East Direction)	67.4	35.3	11.7	15.8	0.5	<20
2	At the Boundary near ESP (South Direction)	71.9	36.8	12.4	16.9	0.6	<20
3	At the Boundary near Coal Fines Stock yard (North Direction)	66.5	35.4	12.1	15.6	0.5	<20
4	Near Ball mill, Iron ore fines stock yard	69.2	36.1	11.8	15.2	0.4	<20
NAAQ Standard		100 ($\mu\text{g}/\text{m}^3$)	60 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	4.0 (mg/m^3)	400 ($\mu\text{g}/\text{m}^3$)


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Reference No : **CEMC/ASL/Jan-A-01/20**
Name of Company : **Ardent Steel Ltd.**
Sample Description : **Ambient Air**
Date of Monitoring : **11.01.2020**
Date of Receiving : **13.01.2020**
Date of Analysis : **13.01.2020**
Sample Collected by : **Mr. B Samantaray**

AMBIENT AIR QUALITY TEST REPORT (24 HOURLY AVERAGE)

Sl. No.	LOCATION	MONITORING REPORT					
		PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)
1	At the boundary near the water harvesting pond (East Direction)	69.2	35.8	11.6	15.5	0.5	<20
2	At the Boundary near ESP (South Direction)	73.5	37.4	12.1	16.7	0.6	<20
3	At the Boundary near Coal Fines Stock yard (North Direction)	67.7	35.5	11.8	15.7	0.5	<20
4	Near Ball mill, Iron ore fines stock yard	70.3	36.9	11.9	15.4	0.5	<20
NAAQ Standard		100 ($\mu\text{g}/\text{m}^3$)	60 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	4.0 (mg/m^3)	400 ($\mu\text{g}/\text{m}^3$)


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Notes:



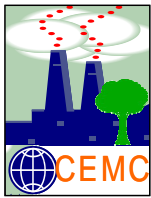
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Reference No : **CEMC/ASL/Feb-A-02/20**
Name of Company : **Ardent Steel Ltd.**
Sample Description : **Ambient Air**
Date of Monitoring : **07.02.2020**
Date of Receiving : **08.02.2020**
Date of Analysis : **08.02.2020**
Sample Collected by : **Mr. S Behera**

AMBIENT AIR QUALITY TEST REPORT (24 HOURLY AVERAGE)

Sl. No.	LOCATION	MONITORING REPORT					
		PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)
1	At the boundary near the water harvesting pond (East Direction)	65.6	34.1	11.3	15.9	0.4	<20
2	At the Boundary near ESP (South Direction)	75.1	38.2	12.3	16.2	0.5	<20
3	At the Boundary near Coal Fines Stock yard (North Direction)	64.5	33.9	11.6	15.4	0.5	<20
4	Near Ball mill, Iron ore fines stock yard	71.4	36.3	11.5	14.6	0.4	<20
NAAQ Standard		100 ($\mu\text{g}/\text{m}^3$)	60 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	4.0 (mg/m^3)	400 ($\mu\text{g}/\text{m}^3$)

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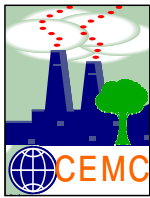
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E-mail- cemc_consultancy@yahoo.co.in, cemc122@gmail.com, website: www.cemc.in.

Laboratory At: Plot No. 800/1274, Johal, Pahal, Bhubaneswar-752101,
E-mail: cemclab@yahoo.in, Mobile: 9937631956, 8895177314



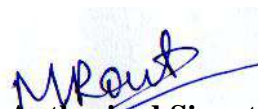
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Reference No : **CEMC/ASL/Mar-A-03/20**
 Name of Company : **Ardent Steel Ltd.**
 Sample Description : **Ambient Air**
 Date of Monitoring : **11.03.2020**
 Date of Receiving : **13.03.2020**
 Date of Analysis : **13.03.2020**
 Sample Collected by : **Mr. S Behera**

AMBIENT AIR QUALITY TEST REPORT (24 HOURLY AVERAGE)

Sl. No.	LOCATION	MONITORING REPORT					
		PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)
1	At the boundary near the water harvesting pond (East Direction)	68.3	35.6	11.5	16.4	0.5	<20
2	At the Boundary near ESP (South Direction)	71.4	36.8	11.9	16.1	0.5	<20
3	At the Boundary near Coal Fines Stock yard (North Direction)	67.8	35.2	12.4	16.7	0.6	<20
4	Near Ball mill, Iron ore fines stock yard	73.1	36.5	12.1	14.2	0.5	<20
NAAQ Standard		100 ($\mu\text{g}/\text{m}^3$)	60 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	80 ($\mu\text{g}/\text{m}^3$)	4.0 (mg/m^3)	400 ($\mu\text{g}/\text{m}^3$)


Authorized Signatory
 Notes:

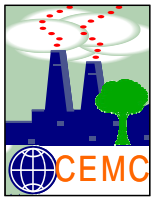


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ANNEXURE - 5

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MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Reference No : CEMC/ASL/Oct -ST-01/19
Name of Company : Ardent Steel Ltd.
Sample Description : Stack Monitoring
Date of Monitoring : 09.10.2019
Date of Receiving : 10.10.2019
Date of Analysis : 11.10.2019
Sample Collected by : Mr. B Samantaray
Stack Height : 30m

STACK EMISSION REPORT

Sl. No.	Location of Sampling	Flue Gas Temp. in K	Concentration of Particulate Matter (PM) in mg/Nm ³
			Result
01	ESP	412	50.7


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Notes:



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Reference No : CEMC/ASL/Nov -ST-01/19
Name of Company : Ardent Steel Ltd.
Sample Description : Stack Monitoring
Date of Monitoring : 06.11.2019
Date of Receiving : 07.11.2019
Date of Analysis : 07.11.2019
Sample Collected by : Mr. B Samantaray
Stack Height : 30m

STACK EMISSION REPORT

Sl. No.	Location of Sampling	Flue Gas Temp. in K	Concentration of Particulate Matter (PM) in mg/Nm ³
			Result
01	ESP	401	48.3

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Reference No : CEMC/ASL/Dec -ST-01/19
Name of Company : Ardent Steel Ltd.
Sample Description : Stack Monitoring
Date of Monitoring : 13.12.2019
Date of Receiving : 14.12.2019
Date of Analysis : 14.12.2019
Sample Collected by : Mr. B Samantaray
Stack Height : 30m

STACK EMISSION REPORT

Sl. No.	Location of Sampling	Flue Gas Temp. in K	Concentration of Particulate Matter (PM) in mg/Nm ³
			Result
01	ESP	394	46.5


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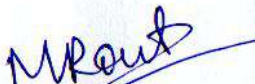
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Reference No : CEMC/ASL/Jan -ST-01/20
Name of Company : Ardent Steel Ltd.
Sample Description : Stack Monitoring
Date of Monitoring : 11.01.2020
Date of Receiving : 13.01.2020
Date of Analysis : 13.01.2020
Sample Collected by : Mr. B Samantaray
Stack Height : 30m

STACK EMISSION REPORT

Sl. No.	Location of Sampling	Flue Gas Temp. in K	Concentration of Particulate Matter (PM) in mg/Nm ³
			Result
01	ESP	381	48.9


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Reference No : **CEMC/ASL/Feb -ST-02/20**
Name of Company : **Ardent Steel Ltd.**
Sample Description : **Stack Monitoring**
Date of Monitoring : **07.02.2020**
Date of Receiving : **08.02.2020**
Date of Analysis : **08.02.2020**
Sample Collected by : **Mr. S Behera**
Stack Height : **30m**

STACK EMISSION REPORT

Sl. No.	Location of Sampling	Flue Gas Temp. in K	Concentration of Particulate Matter (PM) in mg/Nm ³
			Result
01	ESP	391	48.9

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Reference No : CEMC/ASL/Mar -ST-03/20
Name of Company : Ardent Steel Ltd.
Sample Description : Stack Monitoring
Date of Monitoring : 11.03.2020
Sample Collected by : Mr. S Behera
Stack Height : 30m

STACK EMISSION REPORT

Sl. No.	Location of Sampling	Flue Gas Temp. in K	Concentration of Particulate Matter (PM) in mg/Nm ³
			Result
01	ESP	388	49.3

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*Project Report for Capacity increase of
Iron Ore Pellet Plant from existing 6.90lac TPA to 8.5 lac TPA*

Technical due diligence of existing Pollution Control equipment:

EXISTING AIR POLLUTION CONTROL EQUIPMENTS

BAG FILTER DETAILS								
SL	LOCATION	MATERIAL OF HANDLING	TYPE OF BAG FILETR	CAPACITY	NO OF BAGS	BAG SIZE	DESIGN MAX INLET DUST LOAD gm/m3	OUT LET DUST EMISSION MG/M3
1	PROPERTION BUILDING	COAL	INSERTABLE TYPE	3000 M3/HR	20	1500X475X25	10	50
2	PROPERTION BUILDING	BENTONITE	INSERTABLE TYPE	5000 M3/HR	30	1500X475X25	10	50
3	PROPERTION BUILDING	ASH	INSERTABLE TYPE	5000 M3/HR	30	1500X475X25	10	50
4	PROPERTION BUILDING	MIXTURE OF COAL BENTONITE & ASH	STAND ALONE TYPE	8000 M3/HR	60	φ150 X 3650 MM	10	50
5	MIXTURE BUILDING	MIXTURE OF COAL BENTONITE & ASH	STAND ALONE TYPE	4000 M3/HR	54	φ150 X 2050 MM	10	50
6	COALMILL	PULVURISED COAL	STAND ALONE TYPE	15000 M3/HR	144	φ150 X 3650 MM	10	50

1. Capacity of Bag Filters as per the manufacturer is Rated: 40000 m3/hr.
2. Generation of Bag Filter dust at present is 6 TPD = 6 TPD / 24 hours.. 0.25 TPH.
3. Bag Filter dust collection as per the supplier is 10 gms. Per m3 / hr which is equal to 10 x 40000 m3/hr = 400000 gms. = 400 kg = 0.4 TPH .
4. As per existing 0.4 TPH dust load available capacities of all the bag filters , the present capacity in use is 0.25 TPH.

DUST LOAD AVAILABLE FOR CAPACITY ENHANCEMENT IN BAG FILTERS

SL	LOCATION & MATERIAL HANDLING	CAPACITY	DESIGN MAX INLET DUST LOAD IN GM/M3	OUT LET DUST EMISSION IN MG/M3	MAXIMUM INLET DUST LOAD IN KG /HR	OUT LET DUST EMISSION IN KG /HR	PRESENT DUSTGENERATION IN KG / HR	DUST LOAD AVAILABLE FOR EXPANSION IN KG/HR
1	PROPERTION BUILDING (COAL)	3000 M3/HR	10	50	30	0.15	21	8.88
2	PROPERTION BUILDING (BENTINITE)	5000 M3/HR	10	50	50	0.25	32	17.75
3	PROPERTION BUILDING (ASH)	5000 M3/HR	10	50	50	0.25	37	12.75
4	PROPERTION BUILDING (MIXTURE OF COAL BENTONITE & ASH)	8000 M3/HR	10	50	80	0.4	48	31.6
5	MIXTURE BUILDING (MIXTURE OF COAL BENTONITE & ASH)	4000 M3/HR	10	50	40	0.2	30	9.8
6	COALMILL (PULVURISED COAL)	15000 M3/HR	10	50	150	0.75	82	67.25



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Reference No : CEMC/ASL/Oct -GW-01/19
 Name of Company : Ardent Steel Ltd.
 Sample Description : Ground Water
 Date of Monitoring : 09.10.2019
 Date of Receiving : 10.10.2019
 Date of Analysis : 10.10.2019
 Sample Collected by : Mr. B Samantaray
 Sample Location : RO Water

GROUND WATER TEST REPORT

Sl. No	Parameter	Unit	Desired Limit of drinking water (BIS:10500:2012)	Permissible Limit of drinking water (BIS:10500:2012)	Result
1	Colour	Hazen	5	15	<5
2	Odour	-	Agreeable	Agreeable	AL
3	Taste	-	Agreeable	-	AL
4	Turbidity	NTU	1	5	<1
5	pH Value @ 25°C	-	6.5-8.5	No Relaxation	6.75
6	Total Dissolved Solid	mg/l	500	2000	93.0
7	Alkalinity as CaCO ₃	mg/l	200	600	48.0
8	Total Hardness as CaCO ₃	mg/l	200	600	54.0
9	Iron as Fe	mg/l	0.3	No Relaxation	0.09
10	Nitrate as NO ₃ ⁻ -N	mg/l	45	No Relaxation	0.28
11	Sulphate as SO ₄	mg/l	200	400	1.9
12	Fluoride as F	mg/l	1.0	1.5	<0.05
13	Calcium as Ca	mg/l	75	200	13.63
14	Chloride as Cl ⁻	mg/l	250	1000	5.2

N.B: AL – Agreeable


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Reference No : CEMC/ASL/Nov-GW-01/19
Name of Company : Ardent Steel Ltd.
Sample Description : Ground Water
Date of Monitoring : 06.11.2019
Date of Receiving : 07.11.2019
Date of Analysis : 07.11.2019
Sample Collected by : Mr. B Samantaray
Sample Location : RO Water

GROUND WATER TEST REPORT

Sl. No	Parameter	Unit	Desired Limit of drinking water (BIS:10500:2012)	Permissible Limit of drinking water (BIS:10500:2012)	Result
1	Colour	Hazen	5	15	<5
2	Odour	-	Agreeable	Agreeable	AL
3	Taste	-	Agreeable	-	AL
4	Turbidity	NTU	1	5	<1
5	pH Value @ 25°C	-	6.5-8.5	No Relaxation	6.88
6	Total Dissolved Solid	mg/l	500	2000	81
7	Alkalinity as CaCO ₃	mg/l	200	600	40
8	Total Hardness as CaCO ₃	mg/l	200	600	42
9	Iron as Fe	mg/l	0.3	No Relaxation	0.07
10	Nitrate as NO ₃ ⁻ -N	mg/l	45	No Relaxation	0.21
11	Sulphate as SO ₄	mg/l	200	400	1.4
12	Fluoride as F	mg/l	1.0	1.5	<0.05
13	Calcium as Ca	mg/l	75	200	11.22
14	Chloride as Cl ⁻	mg/l	250	1000	3.4

N.B: AL – Agreeable

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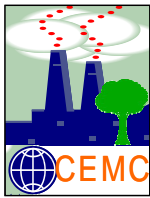
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Reference No : CEMC/ASL/Dec-GW-01/19
Name of Company : Ardent Steel Ltd.
Sample Description : Ground Water
Date of Monitoring : 13.12.2019
Date of Receiving : 14.12.2019
Date of Analysis : 14.12.2019
Sample Collected by : Mr. B Samantaray
Sample Location : RO Water

GROUND WATER TEST REPORT

Sl. No	Parameter	Unit	Desired Limit of drinking water (BIS:10500:2012)	Permissible Limit of drinking water (BIS:10500:2012)	Result
1	Colour	Hazen	5	15	<5
2	Odour	-	Agreeable	Agreeable	AL
3	Taste	-	Agreeable	-	AL
4	Turbidity	NTU	1	5	<1
5	pH Value @ 25°C	-	6.5-8.5	No Relaxation	6.96
6	Total Dissolved Solid	mg/l	500	2000	62
7	Alkalinity as CaCO ₃	mg/l	200	600	30
8	Total Hardness as CaCO ₃	mg/l	200	600	34
9	Iron as Fe	mg/l	0.3	No Relaxation	0.06
10	Nitrate as NO ₃ ⁻ -N	mg/l	45	No Relaxation	0.20
11	Sulphate as SO ₄	mg/l	200	400	1.3
12	Fluoride as F	mg/l	1.0	1.5	<0.05
13	Calcium as Ca	mg/l	75	200	9.62
14	Chloride as Cl ⁻	mg/l	250	1000	3.1

N.B: AL – Agreeable


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Reference No : CEMC/ASL/Jan-GW-01/20
 Name of Company : Ardent Steel Ltd.
 Sample Description : Ground Water
 Date of Monitoring : 11.01.2020
 Date of Receiving : 13.01.2020
 Date of Analysis : 13.01.2020
 Sample Collected by : Mr. B Samantaray
 Sample Location : Canteen(RO Water)

GROUND WATER TEST REPORT

Sl. No	Parameter	Unit	Desired Limit of drinking water (BIS:10500:2012)	Permissible Limit of drinking water (BIS:10500:2012)	Result
1	Colour	Hazen	5	15	<5
2	Odour	-	Agreeable	Agreeable	AL
3	Taste	-	Agreeable	-	AL
4	Turbidity	NTU	1	5	<1
5	pH Value @ 25°C	-	6.5-8.5	No Relaxation	5.96
6	Total Dissolved Solid	mg/l	500	2000	42
7	Alkalinity as CaCO ₃	mg/l	200	600	30
8	Total Hardness as CaCO ₃	mg/l	200	600	26
9	Iron as Fe	mg/l	0.3	No Relaxation	0.06
10	Nitrate as NO ₃ ⁻ -N	mg/l	45	No Relaxation	0.13
11	Sulphate as SO ₄	mg/l	200	400	1.1
12	Fluoride as F	mg/l	1.0	1.5	<0.05
13	Calcium as Ca	mg/l	75	200	7.21
14	Chloride as Cl ⁻	mg/l	250	1000	2.6

N.B: AL – Agreeable


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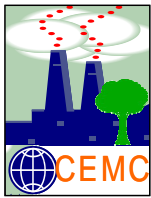
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Reference No : CEMC/ASL/Feb-GW-02/20
Name of Company : Ardent Steel Ltd.
Sample Description : Ground Water
Date of Monitoring : 07.02.2020
Date of Receiving : 08.02.2020
Date of Analysis : 08.02.2020
Sample Collected by : Mr. S Behera
Sample Location : Canteen(RO Water)

GROUND WATER TEST REPORT

Sl. No	Parameter	Unit	Desired Limit of drinking water (BIS:10500:2012)	Permissible Limit of drinking water (BIS:10500:2012)	Result
1	Colour	Hazen	5	15	<5
2	Odour	-	Agreeable	Agreeable	AL
3	Taste	-	Agreeable	-	AL
4	Turbidity	NTU	1	5	<1
5	pH Value @ 25°C	-	6.5-8.5	No Relaxation	6.21
6	Total Dissolved Solid	mg/l	500	2000	54
7	Alkalinity as CaCO ₃	mg/l	200	600	36
8	Total Hardness as CaCO ₃	mg/l	200	600	24
9	Iron as Fe	mg/l	0.3	No Relaxation	0.05
10	Nitrate as NO ₃ ⁻ -N	mg/l	45	No Relaxation	0.22
11	Sulphate as SO ₄	mg/l	200	400	1.4
12	Fluoride as F	mg/l	1.0	1.5	<0.05
13	Calcium as Ca	mg/l	75	200	8.23
14	Chloride as Cl ⁻	mg/l	250	1000	2.6

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Reference No : CEMC/ASL/Mar-GW-03/20
 Name of Company : Ardent Steel Ltd.
 Sample Description : Ground Water
 Date of Monitoring : 11.03.2020
 Date of Receiving : 13.03.2020
 Date of Analysis : 13.03.2020
 Sample Collected by : Mr. S Behera
 Sample Location : Canteen(RO Water)

GROUND WATER TEST REPORT

Sl. No	Parameter	Unit	Desired Limit of drinking water (BIS:10500:2012)	Permissible Limit of drinking water (BIS:10500:2012)	Result
1	Colour	Hazen	5	15	<5
2	Odour	-	Agreeable	Agreeable	AL
3	Taste	-	Agreeable	-	AL
4	Turbidity	NTU	1	5	<1
5	pH Value @ 25°C	-	6.5-8.5	No Relaxation	6.38
6	Total Dissolved Solid	mg/l	500	2000	49
7	Alkalinity as CaCO ₃	mg/l	200	600	32
8	Total Hardness as CaCO ₃	mg/l	200	600	22
9	Iron as Fe	mg/l	0.3	No Relaxation	0.05
10	Nitrate as NO ₃ ⁻ -N	mg/l	45	No Relaxation	0.21
11	Sulphate as SO ₄	mg/l	200	400	1.2
12	Fluoride as F	mg/l	1.0	1.5	<0.05
13	Calcium as Ca	mg/l	75	200	6.41
14	Chloride as Cl ⁻	mg/l	250	1000	2.3

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Reference No : **CEMC/ASL/Oct -N-01/19**
 Name of Company : **Ardent Steel Ltd.**
 Sample Description : **Noise Monitoring Report**
 Date of Monitoring : **09.10.2019**
 Sample Collected by : **Mr. B Samantaray**

NOISE LEVEL STUDY REPORT

Sl. No.	Location	Noise Level In Day Time dB(A)	Noise Level In Night Time dB(A)
01	Ball Mill (Cool Grinding)	73.8	69.4
02	Raw Material Transfer point of Mixture (Mixture Building)	71.8	67.2

NATIONAL STANDARD NOISE LEVEL

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


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Reference No : CEMC/ASL/Nov -N-01/19
Name of Company : Ardent Steel Ltd.
Sample Description : Noise Monitoring Report
Date of Monitoring : 06.11.2019
Sample Collected by : Mr. B Samantaray

NOISE LEVEL STUDY REPORT

Sl. No.	Location	Noise Level In Day Time dB(A)	Noise Level In Night Time dB(A)
01	Ball Mill (Cool Grinding)	74.2	68.1
02	Raw Material Transfer point of Mixture (Mixture Building)	72.5	67.9

NATIONAL STANDARD NOISE LEVEL

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

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Reference No : CEMC/ASL/Dec -N-01/19
Name of Company : Ardent Steel Ltd.
Sample Description : Noise Monitoring Report
Date of Monitoring : 13.12.2019
Sample Collected by : Mr. B Samantaray

NOISE LEVEL STUDY REPORT

Sl. No.	Location	Noise Level In Day Time dB(A)	Noise Level In Night Time dB(A)
01	Ball Mill (Cool Grinding)	74.3	69.2
02	Raw Material Transfer point of Mixture (Mixture Building)	73.1	66.7

NATIONAL STANDARD NOISE LEVEL

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


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Reference No : CEMC/ASL/Jan -N-01/20
Name of Company : Ardent Steel Ltd.
Sample Description : Noise Monitoring Report
Date of Monitoring : 11.01.2020
Sample Collected by : Mr. B Samantaray

NOISE LEVEL STUDY REPORT

Sl. No.	Location	Noise Level In Day Time dB(A)	Noise Level In Night Time dB(A)
01	Ball Mill (Cool Grinding)	74.7	69.6
02	Raw Material Transfer point of Mixture (Mixture Building)	74.2	68.1

NATIONAL STANDARD NOISE LEVEL

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

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Reference No : CEMC/ASL/Feb -N-02/20
Name of Company : Ardent Steel Ltd.
Sample Description : Noise Monitoring Report
Date of Monitoring : 07.02.2020
Sample Collected by : Mr.S Behera

NOISE LEVEL STUDY REPORT

Sl. No.	Location	Noise Level In Day Time dB(A)	Noise Level In Night Time dB(A)
01	Ball Mill (Cool Grinding)	73.2	69.1
02	Raw Material Transfer point of Mixture (Mixture Building)	72.7	68.4

NATIONAL STANDARD NOISE LEVEL

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

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Reference No : CEMC/ASL/Mar -N-03/20
Name of Company : Ardent Steel Ltd.
Sample Description : Noise Monitoring Report
Date of Monitoring : 11.03.2020
Sample Collected by : Mr.S Behera

NOISE LEVEL STUDY REPORT

Sl. No.	Location	Noise Level In Day Time dB(A)	Noise Level In Night Time dB(A)
01	Ball Mill (Cool Grinding)	74.1	68.7
02	Raw Material Transfer point of Mixture (Mixture Building)	71.9	69.2

NATIONAL STANDARD NOISE LEVEL

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

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Regd. Office: 1st Floor, N-5/305, IRC village, Nayapalli, Bhubaneswar-751015, Odisha, India, Mobile: 9861032826
E-mail- cemc_consultancy@yahoo.co.in, cemc122@gmail.com, website: www.cemc.in.

Laboratory At: Plot No. 800/1274, Johal, Pahal, Bhubaneswar-752101,
E-mail: cemclab@yahoo.in, Mobile: 9937631956, 8895177314

[FORM No. 31-A]
Health Record
 (Pre-employment / Periodical)
 [Prescribed under rule 62-I]

- 1 Name of the factory : ASL
- 2 Name of the Employee : Hareesh chandra Behera
- 3 Employee Distinguishing Number : 774
- 4 Age of the employee : 30 year.
- 5 Identification mark : A cut marks present over the forehead.
- 6 Nature of the job : Technician coal mill
- 7 Date of Employment : 10.10.2018
- 8 Length of service in years : 2 year.
- 9 General Survey :
- Health : Good / Fair / Poor
- Height : Cms. 170cms
- Weight : Kg. 80kg
- 10 Blood group : A +ve
- 11 Eye Vision
- Normal / ~~Abnormal~~
- Use of glass : Yes / No
- 12 Hearing : Normal / ~~Abnormal~~
- 13 Respiratory system and chest Measurement
- Inspiration 41"
- Expiration 38"
- Respiration rate / min. 20/min
- Remarks, if any Nil
- 14 Cardiovascular system
- Pulse rate 74/min
- B.P. 127/80 mmHg
- Heart Sound S1 S2 Normal hearest
- Remarks, if any Nil
- 15 Abdomen Tenderness : Yes / No
- 16 Nervous System
- History of Fits : Yes / No
- Epilepsy : Yes / No
- Remarks on Mental Health Sound
- 17 Locomotor System : Normal / ~~Abnormal~~
- 18 Skin Condition : Normal / ~~Abnormal~~
- Remarks on any skin disease noticed : Nil

19 Hernias :

Present / Absent

20 Hydrocele :

Present / Absent

21 Present complain if any : *NEI*

22 Summary of Findings :

Heart Disease : *NEI*

Hypertension : *NEI*

Diabetes : *NEI*

T.B. : *NEI*

Epilepsy : *NEI*

Poisoning : *NEI*

Others : *NEI*

Occupational Disease, if any : *Not found*

23 Recommendation, if any for any further investigation *Not required*

Suman Behera
Signature of the employee

Suman Behera
Signature of Medical officer

22/1/20
Dr. Sushree Suman Behera
M.B.B.S
Rega no 23040

[FORM No. 31-A]
Health Record
(Pre-employment / Periodical)
[Prescribed under rule 62-I]

- 1 Name of the factory : ASL
2 Name of the Employee : Sudam Chanan Mohakwal
3 Employee Distinguishing Number : 734
4 Age of the employee : 33 year.
5 Identification mark : A black mole is present over the right hand surface
6 Nature of the job : Asst. Engineer mechanical
7 Date of Employment : 10.10.2016
8 Length of service in years : 4 year.
9 General Survey :
Health : Good / Fair / Poor
Height : Cms. 172 cms
Weight : Kg. 72 kg.
10 Blood group : B +ve
11 Eye Vision
Normal / Abnormal
Use of glass : Yes/No
12 Hearing : Normal/Abnormal
13 Respiratory system and chest Measurement
Inspiration 38 l
Expiration 36 l
Respiration rate / min. 21 / min
Remarks, if any Nil
14 Cardiovascular system
Pulse rate 73 / min
B.P. 125 / 82 mmHg
Heart Sound Normal heart
Remarks, if any Nil
15 Abdomen Tenderness : Yes/No
16 Nervous System
History of Fits : Yes/No
Epilepsy : Yes/No
Remarks on Mental Health Sound
17 Locomotor System : Normal / Abnormal
18 Skin Condition : Normal / Abnormal
Remarks on any skin disease noticed : Nil

19 Hernias :

Present/ Absent

20 Hydrocele :

Present / Absent

21 Present complain if any : *NEI*

22 Summary of Findings :

Heart Disease : *NEI*

Hypertension : *NEI*

Diabetes : *NEI*

T.B. : *NEI*

Epilepsy : *NEI*

Poisoning : *NEI*

Others : *NEI*

Occupational Disease, if any : *Not found*

23 Recommendation, if any for any further investigation *Not required.*

Sudam Chandra Mohanta
Signature of the employee

Suman
23/10/2010
Signature of Medical officer

Dr. Bushree Suman Behera
M.B.B.S
Reg. No. 23040

[FORM No. 31-A]
Health Record
(Pre-employment / Periodical)
[Prescribed under rule 62-I]

- 1 Name of the factory : AsL
2 Name of the Employee : Sudhakar Mishra
3 Employee Distinguishing Number : 706
4 Age of the employee : 35 year.
5 Identification mark : A black mole is present over the surface of Right hand.
6 Nature of the job : Asst. officer W.B.
7 Date of Employment : 10.10.2016
8 Length of service in years : 4 year.
9 General Survey :
Health : Good / ~~Fair~~ / Poor
Height : Cms. 162 cms
Weight : Kg. 65 kg.
10 Blood group : O +ve
11 Eye Vision
Normal / ~~Abnormal~~
Use of glass : Yes / No
12 Hearing : Normal / ~~Abnormal~~
13 Respiratory system and chest Measurement
Inspiration 34"
Expiration 32"
Respiration rate / min. 19 / min
Remarks, if any Nil
14 Cardiovascular system
Pulse rate 75 / min
B.P. 118 / 79 mmHg
Heart Sound S1 S2 Normal heard.
Remarks, if any Nil
15 Abdomen Tenderness : Yes / No
16 Nervous System
History of Fits : Yes / No
Epilepsy : Yes / No
Remarks on Mental Health Journal
17 Locomotor System : Normal / ~~Abnormal~~
18 Skin Condition : Normal / ~~Abnormal~~
Remarks on any skin disease noticed : Nil

19 Hearnias : Present / Absent

20 Hydrocele : Present / Absent

21 Present complain if any : *NEI*

22 Summary of Findings :
Heart Disease : *NEI*
Hypertension : *NEI*
Diabetes : *NEI*
T.B. : *NEI*
Epilepsy : *NEI*
Poisoning : *NEI*
Others : *NEI*

Occupational Disease, if any : *Not found*

23 Recommendation, if any for any further investigation *Not required.*

Jeelousan Mishra
Signature of the employee

Suman
23/04/20
Signature of Medical officer

23/4/20
Dr. Sushree Suman Behera
M.B.B.S
Regd no 23040

[FORM No. 31-A]
Health Record
(Pre-employment / Periodical)
[Prescribed under rule 62-I]

- 1 Name of the factory : ASL
2 Name of the Employee : Jagan Dehuri
3 Employee Distinguishing Number : Ashokrajhi contractor.
4 Age of the employee : 37 year.
5 Identification mark : A black mole is present over the belly.
6 Nature of the job : Workman.
7 Date of Employment : 2016
8 Length of service in years : 4 year.
9 General Survey :
Health : Good / ~~Fair~~ / ~~Poor~~
Height : Cms. 155 cms.
Weight : Kg. 56 kg
10 Blood group : B +ve
11 Eye Vision : Normal / ~~Abnormal~~
Use of glass : Yes / ~~No~~
12 Hearing : Normal / ~~Abnormal~~
13 Respiratory system and chest Measurement
Inspiration 35"
Expiration 33"
Respiration rate / min. 18 / min
Remarks, if any Nil
14 Cardiovascular system
Pulse rate 75 / min
B.P. 119 / 81 mmHg
Heart Sound Normal heard
Remarks, if any Nil
15 Abdomen Tenderness : Yes / ~~No~~
16 Nervous System
History of Fits : Yes / ~~No~~
Epilepsy : Yes / ~~No~~
Remarks on Mental Health Sound
17 Locomotor System : Normal / ~~Abnormal~~
18 Skin Condition : Normal / ~~Abnormal~~
Remarks on any skin disease noticed : Nil

19 Hernias :

Present / Absent

20 Hydrocele :

Present / Absent

21 Present complain if any : *नहीं*

22 Summary of Findings :

Heart Disease : *नहीं*

Hypertension : *नहीं*

Diabetes : *नहीं*

T.B. : *नहीं*

Epilepsy : *नहीं*

Poisoning : *नहीं*

Others : *नहीं*

Occupational Disease, if any : *Not found*

23 Recommendation, if any for any further investigation *Not required.*

[Handwritten signature]

Signature of the employee

[Handwritten signature]

Signature of Medical officer

Dr. *[Handwritten]* Suman Behera
M.B.B.S
Regd no 23040

[FORM No. 31-A]
Health Record
(Pre-employment / Periodical)
[Prescribed under rule 62-I]

- 1 Name of the factory : ASL
- 2 Name of the Employee : Jayadharra Naik
- 3 Employee Distinguishing Number : Akhila Khuntia contractor
- 4 Age of the employee : 40 year.
- 5 Identification mark : A black mole is present over the Left
cheek.
- 6 Nature of the job : Labourer.
- 7 Date of Employment : 2016
- 8 Length of service in years : 4 year.
- 9 General Survey :
Health : Good / Fair / Poor ✓
Height : Cms. 158 cms
Weight : Kg. 55 kg
- 10 Blood group : B +ve
- 11 Eye Vision
Normal / Abnormal ✓
Use of glass : Yes / No ✓
- 12 Hearing : Normal / Abnormal ✓
- 13 Respiratory system and chest Measurement
Inspiration 36"
Expiration 34"
Respiration rate / min. 22/min
Remarks, if any Nil
- 14 Cardiovascular system
Pulse rate 72/min
B.P. 118/78 mmHg
Heart Sound S1 S2 Normal heard.
Remarks, if any Nil
- 15 Abdomen Tenderness : Yes / No ✓
- 16 Nervous System
History of Fits : Yes / No ✓
Epilepsy : Yes / No ✓
Remarks on Mental Health Sound
- 17 Locomotor System : Normal / Abnormal ✓
- 18 Skin Condition : Normal / Abnormal ✓
Remarks on any skin disease noticed : Nil

19 Hearnias : Present / Absent

20 Hydrocele : Present / Absent

21 Present complain if any : *NEI*

22 Summary of Findings :
Heart Disease : *NEI*
Hypertension : *NEI*
Diabetes : *NEI*
T.B. : *NEI*
Epilepsy : *NEI*
Poisoning : *NEI*
Others : *NEI*

23 Occupational Disease, if any : *Not found*
Recommendation, if any for any further investigation : *Not required.*

ଉତ୍ତର ମାତ୍ର

Signature of the employee

Suman
22.4.20

Signature of Medical officer
Dr. Sushree Suman Behera
M.B.B.S
Regd no 23040



Ref : ASL/Pollution/2020-21

Ardent steel limited

CIN- U27310CT2007PLC007671

Dt.14.10.2020

The Regional Officer,
State Pollution Control Board,
Keonjhar

Sub : Submission of Environmental Statement Form - V.

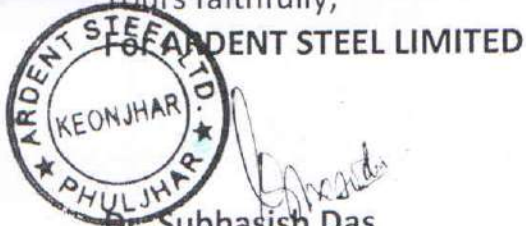
Dear Sir,

Please find enclosed herewith the Environmental Statement Form – V for the financial year ending with 31st March'2020.

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully,



Dr. Subhasish Das
(Director)



ANNEXURE

ENVIRONMENTAL STATEMENT FORM-V

(See rule 14)

Environmental Statement for the financial year ending with 31st March

PART-A

i. Name and address of the owner/ occupier of the industry operation or process.	Dr. Subhasish Das Flat No.404, Kalpataru Niwas, Swarn Apruri Road, Behind Idea Office, Bhubanewar.
ii. Industry category Primary-(STC Code) Secondary- (STC Code)	
iii. Production category – Units.	IRON ORE PELLET
iv. Year of establishment	2007
v. Date of the last environmental statement submitted.	

PART -B

Water and Raw Material Consumption:

i. Water consumption in m³/d

Process	:	135 KLD
Cooling	:	29.5 KLD
Domestic	:	198.5 KLD

Name of Products	Process water consumption per unit of products	
	During the previous financial year	During the current financial year
1. Grinding Section	77 KLD	77 KLD
2. Core Section	58 KLD	58 KLD
3. Cooling	29.5 KLD	29.5 KLD
4. Domestic	46.5 KLD	46.5 KLD
5. Dust Supression	152 KLD	152 KLD



ii. *Raw material consumption*

Name of raw materials*	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year
IRON ORE PELLETT	PELLET	641219.00 MTPA	774273.00 MTPA
LIME STONE		1402.76 MTPA	1846.26 MTPA
DOLOMITE		2457.75 MTPA	3427.50 MTPA

* *Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.*

PART-C

Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons.
(a) Water	NIL	NIL	
(b) Air	NIL	NIL	

PART-D

HAZARDOUS WASTES

(as specified under Hazardous Wastes (Management & Handling Rules, 1989).

Hazardous Wastes		Total Quantity (Kg)	
		During the previous financial year	During the current financial year
1. From Process	USED OIL	4.81 KL	14.51 KL
	COTTON WASTE	471 KG	351 KG
	BATTERY	1 NO	3 NOS
2. From Pollution Control Facilities		NIL	NIL



PART - E

SOLID WASTES:

Solid Wastes	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
a. From process	NIL	1500 MT
b. From Pollution Control Facility	10308 MT	12372 MT
c. Quantity recycled or re-utilised within the unit.	10308 MT	12372 MT

PART - F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

SL NO	Name of the Unit	Quantity Generation (in TPD)	Disposal
1	USED OIL SLUDGE	0.045	Disposed to authorised agency.
2	COTTON WASTE	Nil	Reused.
3	COAL ASH	NIL	Used for filling of low end land.

PART-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

The pollution control measures taken on conservation of natural resources since inception.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution. - NOT APPLICABLE - NO

PART -I

MISCELLANEOUS:

Any other particulars in respect of environmental protection and abatement of pollution. - NO

