

JUSL/JRD/ENV/203-24/05

Date: 29.05.2023

To

Joint Director  
Ministry of Environment, Forest & Climate Change  
Regional Office (EZ)  
A/3, Chandrasekharapur  
Bhubaneswar-751023

**Sub: Half Yearly Compliance Report of Environment Clearance for the period from October, 2022 to March, 2023.**

**Ref:** 1. Environment Clearance vide Letter No. IA-J-11011/110/2018-IA.II(I), dated 24.05.2019 for capacity expansion of Hot Strip Mill from 1.6 MTPA to 3.2 MTPA and new installation of 0.3 MTPA Cold Rolling Mill.  
2. Environment Clearance vide Letter No. IA-J-11011/110/2018-IA.II(I), dated 25.05.2018 for 1.6 MTPA Hot Strip Mill along with plate finishing shop.

Dear Sir,

With reference to the above Environment Clearances, please find enclosed herewith the half yearly compliance of the stipulated conditions as per Environment Clearance granted for the period from October, 2022 to March, 2023.

The soft copy of the same has also been sent to your good office through email –id [raj.bsr-mef@nic.in](mailto:raj.bsr-mef@nic.in)

Thanking You,

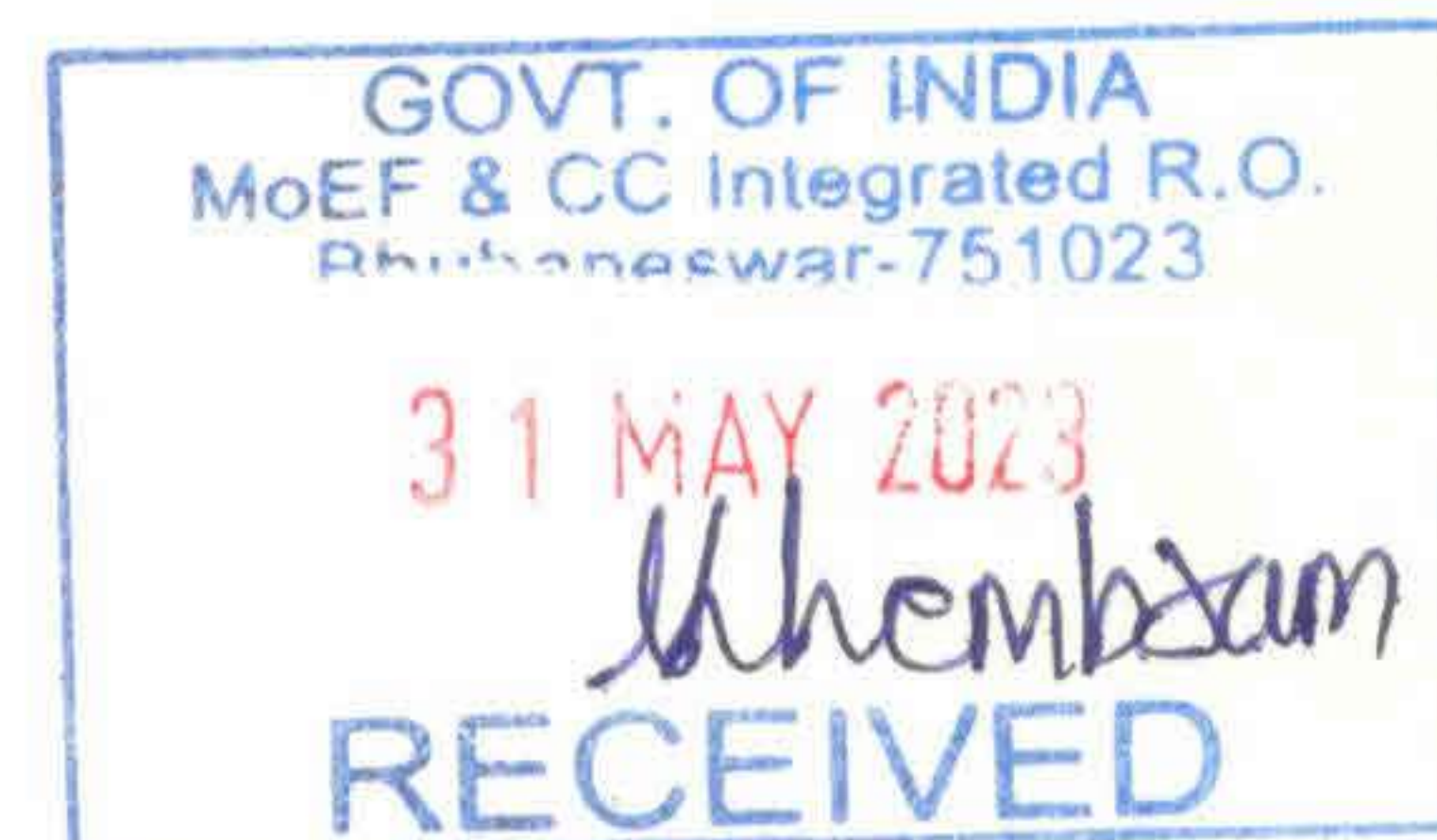
Yours faithfully,  
For Jindal United Steel Limited

Arun Kumar Tripathi  
(Vice President - HSM)

Enc: As Above

CC:

1. The Director, Industry – I, MOEF&CC, Indira Paryavaran, Jor Bagh Road, Aliganj, New Delhi – 110003.
2. The In-Charge, Central Pollution Control Board, 502, Southernd Conclave 1582, Rajdanga Main Road, Kolkata – 700017
3. The Member Secretary, State Pollution Control Board, Odisha, A/118, Nilakantha Nagar, Unit – VIII, Bhubaneswar – 751012.



**Jindal United Steel Limited**

CIN : U28113HR2014PLC053875

**Jajpur Office:** Kalinga Nagar Industrial Complex, Duburi, Dist. Jajpur - 755 026 (Odisha), India

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# **M/S. JINDAL UNITED STEEL LIMITED**



## **HALF YEARLY EC COMPLIANCE REPORT**

OCTOBER, 2022 TO MARCH, 2023



**M/s. JINDAL UNITED STEEL LIMITED**

**Kalinganagar Industrial Complex, Duburi, Dist. Jaipur - 755026, Orissa,  
India**

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**Status of Compliance report of Environment Clearance conditions for capacity expansion of Hot Strip Mill from 1.6 MTPA to 3.2 MTPA and new installation of 0.3 MTPA Cold Rolling Mill.**

Ref: IA-J-11011/110/2018-IA.II(I), dated 24.05.2019

**A. Specific conditions**

SI .no.	EC condition	Compliance status
i.	The CER shall be completed within a time frame of three years.	<b>Being Complied</b> Activities under CER are being undertaken in line with the commencement of the expansion project. Detailed report is enclosed as <b>Annexure – I.</b>
ii	Action plan for rainwater harvesting measures at plant site shall be submitted to the Regional office indicating quantity of rain water to be harvest from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.	<b>Being Complied</b> The rain water harvesting measures are in place for existing Plant. The same will be also provided for proposed expansion project.
iii	The company shall establish separate environmental management cell for JSL & JCL respectively	<b>Complied</b> The company has already established Environment Management cell for JSL & JCL with qualified staffs.
iv	Greenbelt shall be in area of 10 ha. Outside the factory premises and the implementation status shall be reported to Regional Office of MoEF&CC.	<b>Being Complied</b> We have carried out avenue plantation of 8000 nos. of saplings at nearby villages i.e. Nuagaon, Balungabandi, Satabainsia, Kharadi, Mangalapur villages covering an area of 12 Acres.

## Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)

### B. General condition

Sl .no.	EC condition	Compliance status
<b>I . Statutory compliance:</b>		
i.	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.	<b>Complied.</b>  Consent to Establish (CTE) for expansion of Hot Strip Mill from 1.6 MTPA to 3.2 MTPA and installation of 0.3 MTPA Cold Rolling Mill (CRM) vide SPCB letter No. 7663/IND-II-CTE-6231, dated. 19.07.2019. The unit has also obtained Consent to Operate for 1.6 MTPA HSM and 0.3 MTPA CRM valid up to 31.03.2025.
ii.	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.	<b>Noted</b> There is no proposal for drawl / usage of ground water for this expansion project. The water required for process is fulfilled by Jindal Stainless Limited (JSL) which is sourced from River Brahmani for which JSL has obtained permission from water resource Deptt. Odisha.
iii.	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.	<b>Noted &amp; Agreed.</b>  The plant has already obtained authorization under Hazardous and other Waste Management Rules, 2016 and amended there-off for present facilities from SPCB, Odisha, which is valid till 31.03.2025. For any additional generation post expansion, we shall obtain necessary authorization from SPCB, Odisha.
<b>II. Air quality monitoring and preservation:</b>		
i.	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 <sup>st</sup> March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7 <sup>th</sup> 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)	<b>Being Complied</b> The continuous emission monitoring system (CEMS) has been installed at existing stack of Shot Blaster of PFS and Reheating Furnace. The CEMS also installed at new Reheating Furnace and data will be transmitted to both SPCB/CPCB servers.

# *Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)*

Sl .no.	EC condition	Compliance status
	Act, 1986 or NABL accredited laboratories.	
ii.	The project shall monitor fugitive emission in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	<b>Being Complied</b>  Fugitive emission monitoring is being carried out monthly through NABL accredited Laboratory. The same will continue for proposed expansion project.
iii.	The project proponent shall install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM <sub>10</sub> and PM <sub>2.5</sub> in reference to PM emission, and SO <sub>2</sub> and NOx in reference to SO <sub>2</sub> and NOx emissions) within and outside the plant area (at least four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.	<b>Being Complied</b>  Four numbers of continuous on-line ambient air quality monitoring systems (CAAQMS) have been installed which are common for JSL group Company in consultation with SPCB and the data is continuously transmitted to both SPCB & CPCB. Parameters like PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NOx and CO in ambient air are being monitored. However, 1 no. of dedicated CAAQMS has also been newly installed at M/s. Jindal United Steel Limited for monitor of parameters like PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NOx and CO in ambient air.
iv.	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.	<b>Being Complied</b>  Manual monitoring of Ambient Air quality / stack monitoring is being carried out periodical basis. The monitoring report is annexed as <b>Appendix – A</b> .  The monthly summary summery report of Continuous Ambient Air Quality monitoring data is annexed as <b>Appendix – B</b> .
v.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust form all vulnerable sources.	<b>Being Complied</b>  In existing plant process, appropriate Air Pollution Control Devices have been provided to arrest fugitive dust emission. The same shall be followed in the expansion project.
vi.	The project proponent shall provide leakage detection and mechanized bag cleaning	<b>Being Complied</b>

### Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)

Sl .no.	EC condition	Compliance status
	facilities for better maintenance of bags.	Mechanized bag cleaning facilities has been provided for maintenance of bags.
vii.	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs regularly	<b>Being Complied</b> Adequate Mechanical sweepers have been engaged for road and shop floor cleaning.
viii.	Recycle and reuse iron ore fines, coal and coke fines, lime fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting / agglomeration.	<b>Not Applicable</b>  The raw material for Hot Strip Mill is SMS slab which will be received from JSL.
ix.	The project proponent shall use leak proof trucks / dumpers carrying coal and other raw materials and cover them with tarpaulin.	<b>Not Applicable</b>  SMS Slab is the main raw material used in Hot Strip Mill, which will be received from JSL through Slab Transfer Car.
x.	The project proponent shall provide covered sheds raw materials like scrap and sponge iron , lump ore, coke , coal, etc.	<b>Not Applicable</b>  SMS Slab is the main raw material used in Hot Strip Mill, which will be received from JSL through Slab Transfer Car.
xi.	The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.	<b>Being Complied</b>  Fume extraction system has been installed at both existing and new Reheating Furnace.
xii.	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.	<b>Being Complied</b>  All the ventilation system installed at shop floor are as per ACGIH guideline.
<b>III. Water quality monitoring and preservation</b>		
i.	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 <sup>st</sup> March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7 <sup>th</sup> 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.	<b>Noted</b>  The continuous effluent monitoring system has been installed in the ETP of HPL and data is being transmitted to both SPCB/CPCB servers. Report for the period from October' 2022 to March' 2023 is annexed as <b>Appendix – B</b> .
ii.	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient	<b>Noted</b>  At present the unit is not drawing



### Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)

Sl .no.	EC condition	Compliance status
	numbers of piezometers / sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	ground water for plant usage. However, ground water quality in nearby plant area is being monitored bi-monthly by NABL accredited third party Laboratory. Report is annexed as <b>Appendix – A</b> .
iii.	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water to Regional office of MoEF&CC, Zonal office of CPCB and regional office of SPCB along with six monthly monitoring report.	<b>Noted</b> The online data of effluent quality monitoring system is annexed as <b>Appendix – B</b> . The manual testing report of effluent and ground water is annexed as <b>Appendix-A</b> .
iv.	Adhere to “Zero Liquid Discharge”	<b>Being Complied.</b> Zero Liquid Discharge for effluent is being strictly followed.
v.	Sewage Treatment Plant shall be provided for treatment of domestic waste water to meet the prescribed standards.	<b>Being Complied.</b> 2 nos. of STP having capacity of 35 m <sup>3</sup> /day & 100 m <sup>3</sup> /day have been installed to treat the sewage water generated from the plant.
vi.	The project proponent shall provide the ETP for treatment of effluents of Rolling Mills to meet the standards G.S.R 277 (E) dated 31 <sup>st</sup> March 2012 (applicable to IF/EAF) as amended from time to time.	<b>Noted</b> An ETP of capacity 350m <sup>3</sup> /day has been installed for treatment of effluent generated from Rolling Mill.
vii.	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.	<b>Noted</b> The raw material for Hot Strip Mill is Slab which is stored under shed. However, separate garland drain and storm water drains has been constructed for flow of surface runoff during monsoon.
viii.	The project proponent shall practice rain water harvesting to maximum possible extent.	<b>Being Complied.</b> Rain water harvesting system with provision of recirculation system to raw water reservoir has been constructed.
ix.	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.	<b>Being Complied.</b> The waste water generated from process is being treated in WTP and reused in the process.
<b>IV. Noise monitoring and prevention</b>		
i.	Noise level shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer	<b>Being Complied.</b> The noise level monitoring is carried out

## Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)

Sl .no.	EC condition	Compliance status
	of the Ministry as a part of six- monthly compliance.	on periodically. The monitoring report is annexed as <b>Appendix – A.</b>
ii.	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.	<b>Noted &amp; Agreed</b>  The noise level is meeting the prescribed standards.
<b>V. Energy Conservation Measures</b>		
i.	The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.	<b>Being Complied.</b>  Pre-heating of combustion air system has been installed at both the existing and new reheating furnaces.
ii.	Practice hot charging of slabs and billets/blooms as far as possible.	<b>Being Complied.</b>  As per present practice of charging of hot slabs to reheating furnace is being carried out as far as possible.
iii.	Ensure installation of regenerative type burners on all furnaces.	<b>Being complied</b>  The Reheating Furnace installed is walking beam reheating furnace with recuperator. Recuperator is used in the reheating furnaces as a waste heat recovery unit to realize high thermal efficiency and energy conservation. The recovered waste heat is used to preheat the combustion air, which is then fed to a burner.
iv.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around the project area and maintain the same regularly.	<b>Being Complied.</b>  Installation of solar power generation on roof tops of buildings is under process.
V	Provide LED lights in their office and residential areas.	<b>Noted</b> LED lights have been provided at all office and residential areas as part of energy conservation measures.
<b>VI. Waste Management</b>		
i.	Used refractories shall be recycled a far as possible.	<b>Being complied</b>  Used rectories generated are being reused in SMS of JSL.
ii.	Oily scum and metallic sludge recovered from rolling mills of ETP shall be mixed, dried and briquetted and reused melting furnaces.	<b>Being Complied.</b>  Metallic sludge recovered from rolling mill of ETP is being reused is Briquette Plant for further reuse in Ferro Alloys Plant of JSL.



## Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)

Sl .no.	EC condition	Compliance status								
iii.	100% utilization of fly ash shall be assured. All the fly ash shall be provided to cement and brick manufactures for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.	<b>Not Applicable.</b> CPP is not covered under JUSL.								
iv.	The waste oil, grease and other hazardous wastes like acidic sludge from pickling, galvanising, chrome plating mills etc. shall be disposed as per the Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016.	<b>Being Complied.</b>  The waste oil generated is being disposed to authorized recycler and the ETP sludge of HPL is being disposed to CHWSTDF as per the Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016.								
<b>VII. Green Belt</b>										
i.	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guideline. The greenbelt shall inter alia cover the entire periphery of the plant.	<b>Being Complied</b>  We have carried out avenue plantation of 8000 nos. of saplings at nearby villages i.e. Nuagaon, Balungabandi, Satabainsia, Kharadi, Mangalapur villages covering an area of 12 Acres.  Further an extensive plantation programme is going on in plant premises.								
ii.	The project proponent shall prepare GHG emission inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.	<b>Being Complied</b>  GHG emissions inventory for the plant has been carried out for the FY 2021-22. <table border="1"> <thead> <tr> <th colspan="3">GHG Emission Intensity (TCO<sub>2</sub>e/T)</th></tr> </thead> <tbody> <tr> <td rowspan="2">2021-22</td><td>Scope 1</td><td>0.1279</td></tr> <tr> <td>Scope 2</td><td>0.0083</td></tr> </tbody> </table> As group of company JSL has taken various Decarburization programs. The detail report is enclosed as <b>Annexure – II.</b>	GHG Emission Intensity (TCO <sub>2</sub> e/T)			2021-22	Scope 1	0.1279	Scope 2	0.0083
GHG Emission Intensity (TCO <sub>2</sub> e/T)										
2021-22	Scope 1	0.1279								
	Scope 2	0.0083								
<b>VIII. Public hearing and Human health issues</b>										
i.	Emergency Preparedness plan based on Hazard Identification and Risk Management (HIRA) and Disaster Management Plan shall be implemented.	<b>Being complied</b>  HIRA is being done based on Hazard involved in the process and activities, which is to be carried out during operation and accordingly Onsite Emergency Plan is also updated.								
ii.	The project proponent shall carryout heat stress analysis for the workmen who work in	<b>Being complied</b>								

## Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)

Sl .no.	EC condition	Compliance status
	high temperature work zone and provide Personal Protective Equipment (PPE) as per the norms of Factory Act.	Defined PPE matrix is well in place and Personal Protective Equipment (PPE) have been provided to the workers who are working in high temperature work zone as per the standards stated as stipulated in BIS(Bureau of Indian Standard)
iii.	Provision shall be made for housing construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical healthcare, crèche etc. The housing may be in the form of temporary structures to be removed after completion of the project.	<b>Noted</b> There is no provision of staying of construction labour within the plant site. The construction labours are staying outside the plant premises with their own / contractor arrangements.
iv.	Occupation Health surveillance of the workers shall be done regular basis and records maintained as per the Factory Act.	The same is being carried out on periodical basis as per the Factory Act and shall continue for the expansion project also.
<b>IX. Corporate Environment Responsibility</b>		
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1 <sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.	<b>Noted</b>
ii.	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 for 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.	<b>Noted</b> The company is having a well laid down environmental Policy dully approved by the Director. The copy of the same is attached as <b>Annexure – III</b> .
iii.	A separate Environment 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	<b>Being Complied</b> A separate Environment cell has been setup with skilled personal to take care of Environment issues of plant. The Head of Environment Department directly reports to Head of the



### Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)

Sl .no.	EC condition	Compliance status
		organization.
iv.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be dully approved by competent authorities. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to 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.	<b>Noted</b>
v.	Self –environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	<b>Being complied.</b>  Self environmental audit is being conducted regularly and any point observed is being complied. Third Party Audit for the year 2021-22 has been completed.
vi.	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the plants shall be implemented.	<b>Being complied.</b>  All the recommendations made in the Charter on Corporate Responsibility for Environment Protection is being implemented in the plant.
<b>X. Miscellaneous</b>		
i.	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 in at least in two local news papers of the District or 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.	<b>Already complied</b>  Advertisement on grant of Environment Clearance (EC) has been published in two local news papers within seven days of grant of EC. Copy of the same has been submitted to your good office on 02.06.2019.
ii.	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 day of receipt.	<b>Complied.</b>  The copies of the environmental clearance have been submitted to the Heads of local bodies, Panchayats.
iii.	The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions including results of monitored data on their website and update the same on half-yearly basis.	<b>Being Complied</b>

# *Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)*

Sl .no.	EC condition	Compliance status
iv.	The project proponent shall monitor the criteria pollutant level namely; PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> (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.	<b>Being Complied</b>  Four numbers of continuous on-line ambient air quality monitoring systems (CAAQMS) have been installed which are common for JSL group Company in consultation with SPCB and the data is continuously transmitted to both SPCB & CPCB. Parameters like PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> and CO in ambient air are being monitored. However, 1 no. of dedicated CAAQMS has also been newly installed at M/s. Jindal United Steel Limited for monitor of parameters like PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> and CO in ambient air.
v.	The project proponent shall submit six-monthly report 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.	<b>Being complied.</b>  Presently, six-monthly reports on the status of the compliance of the stipulated environmental conditions uploaded on company website and same shall be continued.
vi.	The project proponent shall submit the environmental statement for each financial year in Form-IV to the concern State Pollution Control Board under the Environment (Protection). Act 1986, as amended subsequently and put on the website of the company.	Environment Statement Report in Form – V is being submitted to SPCB, Odisha every year by 30 <sup>th</sup> September. The Last report has been submitted on 28.09.2022.
vii.	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. <ol style="list-style-type: none"> <li>The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.</li> <li>The project proponent shall abide by all 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.</li> </ol>	<b>Noted</b> Shall be complied.
viii.	No further expansion or modifications in the	<b>Noted</b>



**Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)**

Sl .no.	EC condition	Compliance status
	plant shall be carried out prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).	
ix.	Concealing factual data or submission of false/fabricated data may result revocation of this environmental clearance and attract action under the provision of Environment (Protection). Act 1986.	<b>Noted</b>
x.	The Ministry may revoke or suspended the clearance, if implementation of any of the above conditions is not satisfactory.	<b>Noted</b>
xi.	The Ministry reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.	<b>Noted</b>
xii.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities shall extend full co-operation to the officer(s) of the Regional office by furnishing the requisite data / information / monitoring reports.	<b>Noted</b>
xiii.	The above conditions shall be enforced, inter-alia under the provision 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 Manner.	<b>Noted</b>
xiv.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under the Section 16 of the National Green Tribunal Act, 2010	<b>Noted</b>

**Status of compliance report environment clearance conditions of 1.6 MTPA Hot Strip Mill  
along with plate finishing**  
Ref: IA-J-11011/110/2018-1A II (I), dt. 25<sup>th</sup> May. 2018

**A. SPECIFIC CONDITIONS:**

S. No.	Condition	Compliance
i.	Bag filter shall be installed to control the emissions from PFS. Online continuous monitoring system shall be installed to monitor various pollutants and data submitted to the Ministry's Regional Office at Bhubaneswar, CPCB and OPCB. Dust suppression system shall be installed at raw material handling areas, material transfer points and solid waste dumps to control fugitive emissions. Water sprinkling shall be done on the roads to control fugitive emissions.	<p><b>Being complied.</b></p> <p>Bag filter having adequate capacity has been installed at shot blaster of PFS.</p> <p>We are in process for installing Online continuous monitoring system and the Purchase Requisition has been made.</p> <p>No dust suppression is required as the raw material for HSM is SMS slab, which is stored under shed with concrete flooring.</p> <p>The entire internal road is concrete and mechanical road sweepers are deployed for road cleaning.</p> <p>Photographs of Air Pollution Control system is enclosed as <b>Annexure – IV</b>.</p>
ii.	No ground water shall be used for the plant. All the treated waste water shall be recycled and reused in the process and 'Zero' discharge shall be strictly adopted as per direction of OPCB. Effluent from Hot Strip Mill shall be treated in ETP and shall be reused. TDS in the effluent shall not be more than 2100 mg/l. The domestic waste water after treatment in STP shall be used for green belt development.	<p><b>Complied.</b></p> <p>No ground water is being used in the plant. Zero discharge is being maintained for the entire plant.</p> <p>Effluent generate from process is being treated in ETP and the treated water is completely reused in the process itself. TDS in the effluent is well within the prescribed limit. Photograph of ETP is enclosed as <b>Annexure – V</b>.</p> <p>The domestic waste water after treatment in STP is being reused for green belt development</p>
iii.	Ground water monitoring around the solid waste disposal site/ secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office	Noted.



### Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)

S. No.	Condition	Compliance
	at Bhubaneswar / CPCB and OPCB.	
iv.	Solid waste shall be disposed of in secured landfill designed as per the specifications of the CPCB. Mill scale from Hot Strip Mill (HSM) shall be sold to the parent company (JSL) for recycling.	<b>Being Complied.</b>  Mill scale generated from HSM is being stored in designated place and reused in Ferro Alloy plant of JSL.
v.	Green belt shall be developed within and around the plant premises as per the CPCB guidelines in consultation with DFO.	<b>Being Complied.</b>  Green belt is already developed in and around the plant.

### B. GENERAL CONDITIONS:

S. No.	Condition	Compliance
i.	The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OPCB) and the State Government.	<b>Being Complied.</b>  JUSL is strictly adhering to the stipulations made by SPCB and the State Government.
ii.	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.	<b>Noted and agreed.</b>
iii.	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19 <sup>th</sup> May, 1993 and standards prescribed from time to time. The state board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. On-line continuous monitoring system shall be installed in stacks to monitor SPM and interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	<b>Being Complied.</b>  The gaseous emissions from various process units are being monitored by in-house Environmental Laboratory. The analysis reports are being submitted to SPCB and MOEF regularly. The gaseous emissions are conforming to the standards.
iv.	At least four ambient air quality- monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO <sub>2</sub> and NO <sub>x</sub> is anticipated in	<b>Complied.</b>  Four numbers of continuous on-line ambient air quality monitoring systems (CAAQMS) have been installed which are

**Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)**

S. No.	Condition	Compliance
	consultation with the OPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneswar/ OPCB/ CPCB once in six months.	common for JSL group Company in consultation with SPCB and the data is continuously transmitted to both SPCB & CPCB. Parameters like PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> and CO in ambient air are being monitored. However, 1 no. of dedicated CAAQMS has also been newly installed at M/s. Jindal United Steel Limited for monitor of parameters like PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> and CO in ambient air. Both Stack Analysis report & ambient air quality is provided as <b>Appendix-A</b> .
v.	In-plant control measures for checking fugitive emissions from all the vulnerable sources of Hot Strip Mill area, shall also be provide. Fugitive emissions shall be controlled, regularly monitored and records maintained.	<b>Being Complied.</b>  Fugitive emission monitoring is being carried out on regular basis and reports are submitted regularly.
vi.	Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. The treated waste water shall be utilized for plantation purpose.	<b>Being Complied.</b>  The plant is being maintained a zero discharge plant. Industrial waste water is treated to conform to prescribed standards and fully recycled / reused in the process and various in-house applications.  An ETP has been installed for treatment of process water and the treated water is being reutilized in the process to reduce the fresh water consumptions. Photograph of the same is enclosed as <b>Annexure – V</b> .
vii.	The overall noise levels in and around the plant area shall be kept within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EIA Rules, 1989 viz. 75 dBA (daytime) and 70 (dBA) night time.	<b>Being Complied.</b>  Adequate measures have been taken to keep noise level within 85 dB(A) in and around plant area. Silencers, Acoustic Enclosures are provided to control noises, in various areas of the Plant.  The Ambient Noise levels are conforming to the standards prescribed under EPA Rules, 1989.  Noise monitoring result are enclosed as <b>Appendix-A</b> .
viii.	The company shall develop surface water harvesting structures to harvest the rain	<b>Complied.</b>

**Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)**

S. No.	Condition	Compliance
	water for utilization in the lean season besides recharging the ground water table.	Rain water harvesting pit has been constructed to harvest the rain water / surface runoff water from plant catchment area.
ix.	Occupational Health Surveillance of the workers shall be done on a regular basis and record maintained as per the Factories Act.	<b>Being Complied.</b>  Occupational health surveillance of the workers is being carried out on a regular basis and records are being maintained as per the Factories Act.
x.	Recommendations made in the CREP guidelines issued for the steel plants shall be implemented.	<b>Being Complied.</b>  CREP guidelines are being followed.
xi.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/ EMP report for Hot Strip Mill.	<b>Being Complied.</b>  The Plant has taken all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further the unit has undertaken various CSR related activities for peripheral development including community development, educational development, safe drinking water supply, good sanitation of the villagers etc and the CSR activities are common for M/s. JSL, M/s. JCL & M/s. JUSL. CSR report from Oct '22 to Mar' 23 is enclosed as <b>Annexure – VI</b> .
xii.	The project authorities shall utilize Rs. 4 Crores earmarked for the environment pollution control measures judiciously to implement the conditions stipulated by the Ministry Of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for other purpose.	<b>Already Complied.</b>  We have already incurred more than Rs. 6 crores for environmental pollution control measures in Hot Strip Mill.
xiii.	The regional office of the Ministry at Bhubaneswar/ CPCB/ OPCB will monitor the stipulated conditions. A six monthly	<b>Being Complied.</b>  Six monthly compliance report and



**Half- yearly Compliance Report (Oct' 2022 – Mar' 2023)**

S. No.	Condition	Compliance
	compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	monitored data is being submitted to the Ministry regularly. The last half yearly compliance was submitted on 30.11.2022.
xiv.	The project proponent shall inform to the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the OPCB/ Committee and may also be seen at Website of the Ministry Of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the regional Office..	<b>Complied.</b>
xv.	Project authorities 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 and the date of commencing the land development work.	<b>Complied.</b>
xvi.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	<b>Noted.</b>
xvii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner will implement these conditions	<b>Noted.</b>
xviii.	The above conditions will 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 Waste (Management & Handling) Rules, 2016 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.	<b>Being Complied.</b>

## **LIST OF ENCLOSURES**

<b>Sl. No.</b>	<b>Description</b>	<b>Annexure /Appendix</b>
<b>1.</b>	<b>CER report</b>	<b>Annexure - I</b>
<b>2.</b>	<b>Report on Decarbonisation programme</b>	<b>Annexure - II</b>
<b>3.</b>	<b>Environment Policy</b>	<b>Annexure - III</b>
<b>4.</b>	<b>Air Pollution Control System at HSM</b>	<b>Annexure – IV</b>
<b>5.</b>	<b>Water Treatment Facility</b>	<b>Annexure – V</b>
<b>6.</b>	<b>CSR Report Apr’ 2022 to Sep’ 2022</b>	<b>Annexure – VI</b>
<b>7.</b>	<b>Monitoring Report</b>	<b>Appendix – A</b>
	<b>Online Monitoring Report</b>	<b>Appendix – B</b>

## CER compliance report

DETAILS OF THE COST TO BE INCURRED UNDER CER WITH REGARD TO PUBLIC HEARING ISSUES					
CER ACTIVITIES (PH ISSUES)	0-12 months	13 – 22 months	TOTAL	Status as on date	Amount spent ( Rs. In Lakh)
	(Rs. in Lakh)				
<b>Local Livelihood Programme</b>  3 Blocks (Danagadi, Sukinda& Jajpur Road).	85	80	165.00	<b>Towards women empowerment</b>  ➤ Promoted 200 women self help groups of 30 nos, villages from Danagadi and Sukinda Blocks in which 3240 women members are associated with our inhouse team and improving their socio-economic status through various skill development training and bank credit facilitation.  ➤ Establishment of ASMITA production center, Sahaja Sanitary Napkin Making unit, Boutique centers at Danagadi and Sukinda Blocks.  <b>Towards farmers development program</b>  Assistance provided to more than 1500 farmer directly and more than 20,000 nos. farmers through OLM in 4 blocks of Jajpur district.	140



				<p><b>Towards community health care.</b></p> <p>Cataract operation of 475 senior citizen, club foot treatment of 25 children at Jajpur Dist. Awareness program for TB, long disease, malaria and HIV/AIDS is conducted in 5 villages of Danagadi Block</p> <p><b>Towards education and skill development</b></p> <p>➤ Facilitating trained teachers for giving training on computer education, retail management, computer hardware, networking, electrical etc. to 4000 youths of Kalinganagar.</p> <p>➤ Providing assistance for full time football coaching to 05 tribal children of Danagadi and Sukinda at New Delhi.</p>	
<p><b>Local Infrastructure Development Programme</b></p> <p>Construction of 4 Community Centers located within 3 Blocks of Danagadi, Sukinda &amp; Jajpur Road</p>	26	26	52.00	<p>Community center construction at Tikara and Damodarpur village of Danagadi block, mangalpur and dhuligarh has been completed.</p>	59
<p><b>Drinking Water</b></p> <p>Pipeline, pump house and Borewell with Solar Power at Rampillo, Manpur Brahman</p>	58	-	58.00	<p>Pipe line laying work with pomp house and bore well with electrification has been completed at Manpur, Sulia, Pingal, Bengapatia and Kantipur village.</p>	45

Sahi, Pingal & Pankhal Sasan				Other villages are developed through Government Scheme under BASUDHA Yojana.	
Cleaning of Ponds in 22 villages in blocks of Danagadi, Sukinda & Jajpur Road	19	-	19.00	Pond cleaning work completed at 10 nos of villages namely Marutikar, Mantira, Jajpur road, Dala, Chorda etc.	20
<b>Community Environmental Protection Programme</b> - Air and Water Monitoring in Buffer Zone especially in Vyasnagar Municipality Area & New Market of Jajpur Road Block and villages of Nuagaon, Jakhpura, Solei and Danagadi	40	-	40.00	Third Party monitoring in buffer zone is being conducted periodically. However, a detailed comprehensive study on air and water quality has been conducted in 2020 as a part of EMP study.	20
Water Sprinkling in surrounding areas	12	-	12.00	Water Sprinkling being carried out at Manpur village, common corridor of JSL boundary. An amount of Rs. 5 Lakhs has been given to KNDC for water sprinkling and other development works.	10
<b>Education</b> Providing Tuition Teachers & Salary teachers for specific requirements of schools in nearby villages like Kumbhiragadia, Danagadi and Jakhpura located within the blocks of Danagadi and Jajpur Road	5	5	10	Tuition teacher along with salary given to the schools available at Danagadi and Trijanga	10
Boundary Wall for Nodal Upper Primary School at Trijanga	9.5	-	9.50	Boundary Wall for Nodal Upper Primary School at Trijanga completed.	8
<b>Health</b>	40	-	40.00	Up gradation and replacement of	34

Up gradation and replacement of Medical equipment at CHC of Danagadi				Medical equipment at CHC of Danagadi is completed.	
Provision of a DG Set & Beds in PHC OF Pachhikot	5.5	-	5.50	Provision of a DG Set & Beds in PHC OF Pachhikot and korei is completed.	11
Health Camps within blocks of Danagadi and Jajpur Road.	25	-	25.00	Health Camps within block of Danagadi has been completed twice.	20
<b>Local Skill 7 Vocational Training Programme</b>					
Provision of local skill and vocational training programme in nearby villages like Solei and Danagadi within the block of Danagadi	10	5	15.00	Provision of local skill and vocational training programme is being conducted in nearby villages periodically.	12
<b>Avenue/Urban Plantation</b>					
Urban Plantation within the blocks of Danagadi & Jajpur Road	10	10	20.00	Urban road side Plantation of 8000 nos. of tree at villages Nuagaon, Mangalpur, Kharadi, Balungabandi, Satabainsia	18
Free Sapling to local villages within the blocks of Danagadi & Jajpur Road	3	2	5.00	10000 nos. of free sapling have been provided to Forest Department	5
<b>Total</b>			<b>476</b>		<b>412</b>



**DETAILS OF THE COST TO BE INCURRED UNDER CER WITH REGARD TO NEEDS ASSESSMENT**

CER ACTIVITIES (PH ISSUES)	0-12 months	13 – 22 months	TOTAL	Status as on date	
	(Rs. in Lakh)				
<b>Local Skill &amp; Vocational Training Programme</b>					
Vocational and Skill Development Training for women and girls in Mangobindapur, Saranapur and Kacherigan.	6	4	10.00	Vocational and Skill Development Training for women and girls in near by village is being regularly conducted	9
<b>Local Infrastructure Development Programme</b>					
Improvement in Road Conditions in consultation with local administration in villages of Sorei and Mangobindapur	12	12	24.00	Road repairing work is completed to Mangobindpur to Bengapatia at stretch of 500 mt. Concrete road is completed at Pankhpal.	20
<b>Additional Issues addressed under CER</b>					
* Construction of Shiva Temple( Bagei Biswswar temple) in Village Balungabandi	32	*	32	Construction of Shiva Temple in balungabandi Village has been completed	<b>32</b>
* Jagya Mandap at Nohuranipasi	6	*	6	Jagya Mandap at Nohuranipasi work Completed	<b>6</b>

*Danagadi Saraswati Sisu Mandir Class room and Toilet	10	*	10	Classroom and toilet of Sisumandir at Danagadi has been completed.	<b>10</b>
*Hudisahi temple	5	*	5	Thakursala at hudisahi trijanga colony has been completed.	<b>5</b>
*NUAGAON sai Temple	7	*	7	Sai temple at nuagaon has been completed	<b>7</b>
Brahmakumari Ashram at Patia, Bhubaneswar	1	*	1	Development work carried out at patia brahmakumari Ashram	<b>1</b>
Batamangala Mandap at Puri	15	*	15	Construction of Mandap at batamangala, Puri has been completed	<b>15</b>
Saraswati Sisu Mandir Classroom at toilet at Mantira	15	*	15	Construction of classroom and toilet at Sisu mandir at mantira is in progress.	<b>15</b>

Classroom at Marutikar primary School	8	*	8	Construction of classroom at MARutikar Primary School is in progress	8
Brahmakumari Ashram at Anandpur	10	*	10	Construction of brahmakumari Ashram at Anandpur has been proposed, Po to be issued	10
Khudurukuni Puja Hall at Ostapal	5	*	5	Construction of khudurukuni Puja Hall at Ostapal is under progress.	5
Development at Jakhapura Jagannath Temple	11	*	11	Construction of office and dining hall at jagannath temple of Jakhapura is under progress.	11
Development at Mantira Jagannath Temple	8	*	8	Colouring of Jagannath temple at Mantira is under progress.	8
Temple at Khandurai	5	*	5	Construction of Khadurai temple at asanabahali is under progress.	5
<b>Total</b>			<b>34.00</b>		<b>167.00</b>





## Environment, Health & Safety Management Policy

Jindal United Steel Limited is committed to protect the Environment and long term sustainable development through abiding Environmental Norms and various conditions stipulated by Statutory Authorities. Our constant endeavour is to safe guard the Environment and the community residing in the immediate vicinity of the Plant. The Environmental and Social responsibilities are binding with our business goal.

We strive to evolve and implement our Corporate Environmental Policy to comply with the Environmental laws, regulation and the condition of Environmental Clearance, Consent to Establish, Consent to Operate and other applicable rules and regulation.

We are committed to :

- Operate the Plant facilities in compliance with the applicable Rules and Regulation related to Environment, Health and Safety of all the stakeholders.
- Continual improvement of the Environmental Performance through Resource Conservation, Reduction in emission & discharge, Waste minimization and Life Cycle Assessment.
- Develop and maintain greenbelt in and around our operating Plant.
- Aim to achieve zero accident in our operation.

The mechanism of reporting any non-compliance, accident – incident and investigation system shall be as per the approved procedure laid down in Management System manual.

Date : 05 June, 2018  
Place : Jajpur Plant

Rahul Himatsingka  
Director



**Jindal United Steel Limited**

**CIN :** U28113HR2014PLC053875

**Jajpur Office:** Kalinga Nagar Industrial Complex, Duburi, Dist. Jajpur - 755 026 (Odisha), India

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## Report on De carbonization programme

JSL as Group Company has targeted to reach Net Zero emissions by 2050 and for the same strategized short and long term plans are developed and has started its journey towards Net Zero.

Projects have been identified under the following decarbonization levers

**a) Energy Substitution:**

- 7.3 MWp of floating solar plant already commissioned.
- 21 MWp rooftop solar plant installations is in Progress.
- Use of biomass & bio-fuel.
- Green hydrogen plant to replace ammonia cracking.
- Electricity for expansion capacity will be sourced from Renewable energy (Hybrid of Solar + Wind) round the clock.

**b) Feedstock optimization & Circularity:**

- Increasing scrap rate in certain grades.
- 100% utilization of Fly ash.
- Zero liquid discharge achieved.

**c) Process Reconfiguration:**

- Reduction in specific energy consumption.
- Overachieved the target of PAT cycle 2 and reduced 11% in specific energy consumption.
- Initiatives planned to improve efficiency.

**d) Logistics Decarbonization:**

- Launched 4 Electric vehicles inside the plant premises for employee commuting electric buses procurement is in process.
- Exploring LNG as a logistic fuel Fleet electrification of heavy-duty vehicles and in house material handling equipment's .
- Switch from Road to Rail for in/out bound logistics.

**e) Digitalization:**

- ESG Compass tool launched to monitor the GHG emissions and One stop shop for all ESG related data and compliances.

**f) Sustainable Suppliers:**

- Awareness sessions to suppliers for adopting measures to reduce emissions in their process.
- Awareness session conducted for 150+ suppliers.
- Procurement policies incorporating ESG and carbon emission criteria are under process.

**Air Pollution Control Systems at HSM**



**Waste Water Treatment Facility At HSM**



**(ETP AT HSM)**





**(WTP AT HSM)**





# ANNUAL REPORT



*Corporate Social Responsibility-2022-23*  
*Enriching Lives. . . . . Bringing Smile*

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## About JSL CSR JAJPUR

Established in 2008, the JSL Foundation focuses on the wellbeing of the less privileged. For more than 15 years, it has driven social upliftment programmes in the rural hinterland of Kalinganagar in the Jajpur district of Odisha. The foundation's efforts are aligned with the Sustainable Development Goals of the United Nations. We have presence in 30 villages of 7 GPs in 3 blocks of Jajpur districts. With a team of dedicated development professionals, the JSF is putting its efforts into bringing about a substantial change in the lives and livelihoods of people in the villages surrounding its plant and mine operations.

### BENEFICIARY QUOTES

#### Ray of Hope

When I was struggling to get rid of the adverse economic condition of my family, Jindal Stainless Foundation stood with me and showed me the path to overcome the darkness in my life. I had 10 goats of Black Bengal varieties from which I was earning Rs. 20,000–30,000 per annum, which was not enough to maintain my six-headed family. At



***Mrs. Dalimba Mallick  
Balungabandi, Danagadi, Jaipur  
Odisha***



### ***Mushroom Cultivation:- Brings better tomorrow.....***

"Since the year 2012, I have been a simple housewife. My husband was working as a daily labourer at that time. The meagre income earned by my husband was not enough to maintain the family. When I was trying to overcome this tragedy in our lives, Jindal Stainless Foundation showed me a way to start mushroom cultivation. Jindal Stainless Foundation provided me support in terms of training, input, and marketing and encouraged me to start up the venture on a large scale. Now I earn Rs. 10,000 to Rs. 12,000 per month from mushroom cultivation. The money earned from the business helps me provide education for my daughter. It brought better days for me and my family as well. I am thankful to the Jindal Stainless Foundation for providing me with support and making me a mushroom lady in the area."

***Mrs. Gouri Patra, Trijanga, Danagadi***





## EXECUTIVE SUMMARY

- Jindal Stainless Foundation signed a MoU with Green Dream Foundation (GDF), a national-level NGO, to execute the waste management project in three villages in Danagadi Block. A series of activities like HH survey, awareness meetings on solid waste management, waste collection from villages, etc. carried out under the project during the year.
- 3720 persons received free health care services from the Static Health Care Centre in Trijanga, and 12 critical patients referred for higher treatment.
- 1200 persons from five villages made aware of various health-related topics like Dengue, Malaria, Sunstroke etc..
- Health care services provided to 546 people from seven villages through the Mobile Health Camp, and 12 elderly people received health care services at their doorsteps.
- Eye check up camp for the truckers, in partnership with the Prabhaav Foundation and the AK Institute of Ophthalmology, New Delhi, held in the month of September and December, 2022 at the Railway Gate and Rohit Gate inside the plant premises, where 2506 truckers underwent the eye test and provide spectacles to 703 persons.
- Under the Club Foot Elimination Project in partnership with Club Foot India Trust (CIIT), 4,640 clubfoot children enrolled their names to get the treatment.
- JIT Electrical Workshop received a work order of Rs. 5,25,100/- from various vendors and executed the work on time.
- 133 underprivileged youths imparted training on the OS-CIT (Odisha State Certificate in Information Technology) course on Job Readiness Program for youths.
- 24 trainees were provided certificates on successfully completion of their training on Beauty and Wellness
- During the year, ASMITA received orders from various agencies for stitching and supply of 6214 safety jackets, 1500 nose masks, 3122 school uniforms, and 60 women's caps etc.
- Under the SAHAJA Project, 5711 Sanitary Napkins packets were made and sold by the SHG members involved in this unit*
- 210 trainees, including women and girls, received a six-month tailoring training course from the tailoring training centre running in six villages of Danagadi Block.
- Three E-Rickshaws provided to the women SHGs to ease their commuting for various SHG-related works, particularly livelihood promotion activities in their locality.
- Under the Neem Leaf project, the women SHG members from Asanabahali, Manatira, Nimapalli, Solei, and Dhuligrh villages collected and handed over 700 kg of Neem leaves to Jubilant Foundation, Gujarat
- Hon'ble Union Minister of Steel Mr. Ramchandra Prasad Singh, IAS visited Jindal Stainless Limited on April 29, 2022, and interacted with five SHG leaders associated with the CSR department of the JSL Foundation regarding their journey towards economic and social upliftment with the support of the Jindal Stainless Foundation.
- A ten-day skill development training programme was organised for the SHG members of Manapur and Jakhapura villages in which an external resource person and CSR field staff imparted training to women on food processing, agarbathi, phenyl, candle making, pickling, etc.
- A three-month-long training programme on **appliqué work launched** on December 12, 2022, in Alekhpur Tailoring Training Centre with the enrollment of 20 underprivileged girls and women from the village.
- As a measure to enhance the marketing of products produced by Asmita, Sanjeevani, the Jindal Foundation signed a MoU with ICCo, New Delhi in the month of March.



- ✚ Jindal Stainless Foundation observed International Women's Day at different skill centres on 8th March-2023, in which the women SHG members, trainees of tailoring training centres, ASMITA, ASMITA Boutiques, IIIT computer centre, beauty and wellness centre, etc. participated enthusiastically.
- ✚ Mr. Abhudaya Jindal, Mrs. Sristi Ray Jindal, and their daughter Araya visited Asmita on April 30, 2022, and interacted with the girls about the stitching work being undertaken by them.
- ✚ Sampanna Jeevika Producer Company Pvt. Ltd. (SJPCCL) participated in Entrepreneurs Week 2023 from March 5 to 9, 2023, organised by the Directorate of Industries/MSME Department through the District Industries Centre (DIC) at Sanskruti Bhawan, Jajpur Road, in which SHG members displayed their products like spices, sanitary napkins, phenyl, wheat flour, besan, sattu, etc.
- ✚ Three Asmita Boutiques located at Solei, Rabana, and Kaitha villages are being run successfully by the ex-trainers of tailoring training centres, engaging nine underprivileged girls from the area.
- ✚ The Fire and Safety Department organised training on Fire and Safety at Ollala High School and Ollala Project Nodal UP School, in which about 300 students were trained
- ✚ The village library functioning at Hudishai, Trijanga, Trijanga and Danagadi is running effectively.
- ✚ Under the Literature Development programme, Ankur Foundation, a partner NGO of JSL Foundation, organised a painting competition among the students dwelling in slums in Bhubaneswar and Rayagada.
- ✚ MoU signed with the Government Polytechnic, Jajpur, to train 60 youths in Stainless Steel Fabrication every year in three batches
- ✚ Two subject teachers were deployed at Budhரா High School, Danagadi, to teach science and computer training to the students pursuing education from std. VII to X.
- ✚ Five kids from Danagadi and Sukinda deputed to the SUDEVA Football Coaching Academy, New Delhi, to undergo training on Football sports
- ✚ 16 kids of 10-14 age group from Kalarangi village enrolled to undergo football coaching at Kaliapani Mines under the tutelage of an expert trainer.
- ✚ On December 21, 2022, CSR Department organised an Annual sports event amongst the youth, in which around 200 participants, including girls and boys, from all the skill training and production centres participated with enthusiasm and high spirit.
- ✚ Under the Doubling Farmers Income project, activities like training programmes on good agricultural practices on focus crops, farmers' access to markets to get an appropriate price for their vegetables, supplying quality agricultural inputs to farmers, etc. are carried out in the area.
- ✚ Solar photovoltaic irrigation system at two villages enabled 289 farmers to resume agriculture activities enthusiastically after maintenance.
- ✚ Students from SP Jain Institute of Management and Research (SPJIMR), Mumbai; IIM, Indore; NMIMS, Pune etc. were deployed for internship in the CSR department.

## Glimpses of the Activities during the Year

### OUR HEALTH CARE INITIATIVES

#### *Static Clinic Centre, TRC*

As a measure to provide free health care services to people at their doorsteps, JSL Foundation has been running one Static Clinic Centre at TRC, Danagadi, wherein people from surrounding communities are getting health care services to get rid of common ailments. During the year, 3720 people have received free health care services in the form of free consultations and free medicines to cure their common ailments, and 12 critical patients have been referred to other hospitals for higher treatments. The local community has strongly endorsed this noble endeavour by the company in the area.



#### *Health Awareness camps*

The CSR Team organised a series of health awareness camps on Dengue, Malaria, Sunstroke, etc. in villages like Jakhapura, Asanbahali, Balungabadi, Trijanaga colony, Hudisahi, Pankapala, etc. in order to protect people from the onset of various diseases. These camps covered the causes, symptoms, and prevention of these illnesses. About 1200 residents of these communities happily participated in the event and increased their knowledge of these health-related topics.



#### *Health Camps in Villages*

Aligning with the Sustainable Development Goals of the UN, JSL has been encompassing its focus to reach out health care services to each and every person living within its operational territory. Under this initiative, the medical team of JSF had organized free health camps in seven villages under the Danagadi block, from which 546 people benefited. This has brought happiness to the people dwelling in villages.



#### *Health care service to elderly people at Doorstep*

The Health Care Team launched a commendable work to provide medical care to the homes of the elderly and sick. They had visited the homes of those in need and offered the necessary medical care. The elderly persons received general care at their doorsteps





throughout the year, which has made them happy and disease free.

### *Project on Elimination of Disability from Clubfoot in Children*

The project intends to find children who were born with clubfoot, treat them at no cost, and make therapy available to them. The project also aims to offer psychosocial counseling to the beneficiaries' parents in order to assist them in overcoming stress-related problems before and after treatment. The Club Foot Elimination Project, in which 75 children from Jajpur with clubfoot have enrolled and are receiving treatment. The project is being carried out by JSF in collaboration with the Club Foot India Trust. The children have enrolled and are getting treatment. The organisation is presently taking care of 75 kids, out of which 36 are from Jajpur District and are supported by Jindal Stainless Foundation. 25 children enrolled last year have been in regular contact with the counsellor and are visiting the clinic for follow-up.



### *Eye Screening Camp for Truckers*

In India, Nine million truckers and transporters transport 65% of our national cargo by road. To make our roads safe, they need to be able to see clearly. Keeping this in mind, the CSR team had organised free eye screening camps for the truckers in partnership with the Prabhaav Foundation in the months of September and December-2022. a total of 2506 truckers underwent the eye screening



test. Mr. Deepak Agrawal, Unit Head, JSL Jajpur, formally inaugurated the programme and appreciated the CSR effort. It was the first of its kind, a screening camp specially organized for truckers at JSL. 703 persons were provided free spectacles through courier and by hand.

## ENTREPRENEURSHIP DEVELOPMENT PROJECT



### *JIIT Electrical workshop*

JIIT Electrical Workshop has been providing quality services in various electrical trades such as fan and motor repairs, house wiring etc. to various corporate clients like Jindal Stainless Ltd, Jajpur JUSCO, Ekalavya Residential School, Apartments and other private vendors on a regular basis. JIIT Electrical had received the order for the rewinding of fans amounting to Rs. 3,88,300/- from JSL under annual rate contract. The workshop

had also received an order from Jindal Coke Limited amounting to Rs. 1,36,800 for the fixing of electrical items in 64 flats at Spring Villa apartment. Besides it has taken up the maintenance works of the water purification systems installed in schools by JSF. The electric connection to the Material Recovery Facility run by Green Dream Foundation were also done by the unit.

### *JIIT Computer Education Centre*

***During the year, 281 students completed their training on OS-CIT (Odisha State Certificate in Information Technology) course to school and college level students. In order to mobilise more students to get enrolled in OSCIT, PGDCA, DCA, and other career-oriented courses, the team conducted campaigns in various locations in the area. On March 2, 2023, Er. Priti Ranjan Gharai, Odisha's Minister of Rural Development, Skill Development, and Technical Education visited JIIT CEC, Danagadi, and Jajpur and expressed satisfaction with the students' performance. Moreover, a series of sports and cultural events were organized in both centers to unleash the hidden potential of these students.***



### *Beauty & Wellness Training Centre*

As a measure to provide employment opportunity to unemployed women and girls in the beauty and





wellness trade, JSF promoted beauty and wellness training centre at College square, Jajpur Road. The required infrastructure like chairs, inverter, AC, house rents etc. were provided to the centre to make it self sustainable in providing services and training.

## Women Empowerment and Gender Equality

### ASMITA Production Centre

ASMITA has gained immense expertise in stitching and supply of men's industrial safety jackets, student uniforms, nose masks, etc. over the years. A total of 20 women SHG members have joined hands in this mission. During the year, ASMITA had received orders from various agencies for the stitching of 6214 safety jackets, 1500 nose masks, 3122 school uniforms, and 60 women's caps, thereby generating substantial income.



### Training on appliqué works

A six month-long training programme on **appliqué work** was launched on December 12, 2022, at Alekhpur Tailoring Training Centre with the enrollment of 20 underprivileged girls and women from the village. The objective of the training was to empower women and improve self-employment and livelihood opportunity in the region. Through this workshop, the members of SHGs gained skills in appliqué art that could provide them with additional income opportunities.



### SAHAJA Project

Addressing the challenges around personal hygiene for women and adolescent girls, the women SHG members of Trijanga village have been preparing low-cost sanitary napkins, namely "SAHAJA," under the tutelage of the JSL Foundation. During the year, an "Automatic -30" machine with the capacity to produce 30 ultra-thin sanitary napkins per minute is being provided to the group. The CSR Team has carried out a number of awareness camps in villages to make people, including women and girls, aware of the hygienic use of sanitary napkins. During the year, hundreds of sanitary napkins were made and sold in the market.



### Sampanna Jeevika Producer Company



Sampanna Jeevika Producer Company Limited (SJPCL) was established to help more than 2500 women SHG members become socially and economically independent. It has 105 shareholders. A total of 447 SHG members work hard to support their families by engaging in a variety of income-generating activities such as mushroom cultivation, poultry farming, pisciculture, goat rearing spice processing etc. These SHG members' life and means of subsistence have undergone a discernible alteration as a result of the programme. The CSR team has been closely monitoring these income generating activities and providing feedback to the SHG members in order to make all IGAs appropriate and profitable.



### **MoU signed with ICCo NGO**

As a measure to enhance the marketing of products produced by Asmita, Sanjeevani, the Jindal Foundation has signed a MoU with ICCo NGO, New Delhi, in the month of March-23. The objective of the project is to make the livelihood activities of women SHGs sustainable.



### **Tailoring Training Center**

With a broader objective of skilling unemployed women and girls in the rural and remote areas, JSF



opened six tailoring training centres at Alekhapur, Danagadi, Kiapada, Ranagundi, Dhabahali, and Damodarpur villages, wherein 210 girls and women undergone six months tailoring training under the tutelage of expert trainers. Out of them, certificates were provided to 106 students for successful completion of the course. In order to scale up the soft skills expertise of the trainees, various soft skill sessions on communication, customer relationship management, basic knowledge of accounting etc. were

conducted.

### **E- Rickshaw Provided to SHGs**

To promote self-employment and sustainable livelihood opportunities, three E-Rickshaws are being



provided to three SHGs, namely Khandurai, Maa Santoshi, and Tulashi SHGs of Danagadi block, which have become a great relief for the SHGs in travelling for SHG-related works required for livelihood promotion activities. The initiative has become a source of income for these SHGs and brought about a visible transformation in their socio economic profile.

### *SHG Training*

A ten-day skill development training programme was organised for the SHG members of Manapur and Jakhapura villages in which an external resource person and CSR field staff imparted training to women on food processing, agarbathi, phenyl and candle making, pickling, etc. A total of 42 SHG members received the training and acquired extensive knowledge on various entrepreneur skill.



### *Asmita Boutique*

Three Asmita Boutiques located at Solei, Rabana, and Kaitha villages are being running successfully by the ex-trainers of tailoring training centres. They in turn engage nine other underprivileged girls. Ms. Premalata Behera, a Dibyang girl running her shop. She provides tailoring training to 12 underprivileged girls from her village.



### *Annual Sports event*

On December 21, 2023, the CSR Department organised an Annual sports event amongst the youth of the skill training centres. Around 200 participants, including girls and boys, from all the skill training and production centers participated in different traditional sports activities such as running, Skipping, Music chair etc. with lot of enthusiasm and high spirit. Around 1500 people from nearby villages witnessed the event.





### *Village Library project*

The village library is functioning at Hudisahi and covering the villages, Hudisahi, Siaria and Bainsipur. A total of 7080 readers visited the village library to read a variety of library books throughout the reporting period, expanding their knowledge in a range of subjects. It is a CSR opportunity of JSL Foundation to empower and educate the general public.



### *Literature Development Programme*

JSL foundation in association with the Ankur Foundation, had organised literary festival and organised different competitions amongst the slum children and other schools of Odisha. The aim of the project was to bring out the hidden potential of the students. At the end of the event, copies and slates were provided to the students.



### *Fire and safety training is organised in schools.*

Fire safety training teaches a set of practises and procedures to minimise the destruction caused by fire hazards. The Fire and Safety Department of our company organised training on fire and safety at Ollala High School and Ollala Project Nodal UP School in which students were taught about the skills and knowledge required to combat fire in any unanticipated fire breakout. Around 300 kids from grades VI to IX benefitted from the training and participated in practical firefighting sessions. Moreover, various fire extinguishers were demonstrated to the students to raise awareness.



### *Stainless Steel Fabrication Training at the Government Polytechnic*

Jindal Stainless Limited signed a MoU with the Government Polytechnic, Jajpur, to train 60 youths in stainless steel fabrication every year in three batches, i.e., 20 trainees in each batch. Mr. Deepak Agrawal, Unit Head, JSL, was invited by the institute to distribute certificates to the passed-out trainees.



### **Teachers support to school**



As a measure to impart quality education to the students reading in School, JSL Foundation had deployed two experienced teachers at Budharaja High School, Danagadi who are imparting teaching to the students of Class IX and X in Science and computer subjects under the supervision of School administration. Apart from this, teachers conducted the Examinations and various curricular activities among the students.

### **Safe Drinking Water Project**

Seven water purification systems are being installed, and regular maintenance is also done by Jindal Stainless Foundation to ensure a timely and regular supply of water during the reporting period. A total of 5564 kids and school staffs from seven different schools are nourishing benefits of the project. Besides, solar photo voltaic overhead water projects have been installed in Manatria Mundasahi and Puruna Manatira villages have been benefitting 80 households for washing, bathing and using water for their houses.



### **Foot Ball Coaching**

Unleashing sports potentialities of the budding sports talents is one of the prime initiatives of JSF over the years. Under this initiative, five selected kids from Danagadi and Sukinda have been deployed at SUDEVA Football Coaching Academy, Delhi to undergo coaching on Football. They have been given opportunity to play various national tournaments thereby augmenting their sporting experience and talents. Two kids are selected to be further trained at Spain.



### **Football Coaching at Kaliapani:**

One Football Coaching centre is going on at Kaliapani Mines in which sixteen seven kids of 10- 14 years of age are undergoing training.



## RURAL DEVELOPMENT PROJECTS

### *Doubling Income Project @Glance*

Jindal Stainless Foundation in partnership with the Department of Agriculture, Govt. of Odisha and Gram Unnati Foundation (GUF) have launched the 'Doubling Farmers' Income' project. The project's focus on diversification of farming towards dairy, horticulture, floriculture, aquaculture, agro-forestry, apiculture etc. is aligned to the Government of India's DFI agenda. Activities like training support to farmers on good agricultural practices on focused crops, interaction and field visit of 1855 farmers. Established market linkage for selling of Groundnuts, ensuring quality agri.inputs supply to farmers on time etc. were carried out in the area.

### *Sustainable Waste Management Project*

The JSL Foundation, in partnership with Green Dream Foundation, has been implementing a project on sustainable waste management in Solei, Singagadia, Manpur, and TRC villages with a broader objective of improving the welfare and capacity building of informal waste pickers, setting up basic infrastructure, conducting IEC activities to sensitise the people on waste segregation and sustainable waste management, and improving the state of waste management in the above-mentioned villages. Setting up a local IEC (Information, Education, and Communication) team, mapping and surveying villages, finalising land and signing a lease for the material recovery facility, identifying waste collectors, establishing the material recovery facility, starting waste collection, water supply provisioning for the material recovery facility unit, etc. were carried out during the year. The project has benefitted about 4444 households from four villages in terms of keeping their surroundings clean and garbage-free to a substantial extent.



### **Important Visitors**

During the reporting period, a number of significant visitors had paid visit to various CSR projects in Jajpur and interacted with the beneficiaries. On April 30, 2022, Mr. Abhudaya Jindal, Managing Director, JSL and Mrs. Sristi Ray Jindal, and their daughter Araya visited Asmita. They spoke with the





girls about the sewing projects that they were working on.

Four students from The SP Jain Institute of Management and Research (SPJIMR), Mumbai were deployed in "Doubling Farmers Income Project" and "Sahaja" initiatives for a one-month internship. The "Doubling Farmer's Income Project" study was given to two interns whilst the "Study on Consumer Preferences towards Sanitary Practices and the Scope of Sahaja Sanitary Unit to Scale Up" study was given to two other interns.

#### Cabinet Minister, Steel Interacted with SHG members:

Hon'ble Mr. Ramchandra Prasad Singh, IAS, Cabinet Minister, Steel visited Jindal Stainless Limited on 29 April 2022. Five SHG leaders associated with CSR department interacted with him and narrated about their own stories regarding how they have started their journey towards economic and social upliftment with the support of Jindal Stainless Foundation. He was shown micro video regarding the story of Meerabai SHG and shown the products produced by the women SHGs.



#### Media Clippings

## Jindal Stainless Foundation Chairman's visit to various CSR program

JAJPUR, (AOBureau): Mrs. Deepika Jindal, Chairperson, Jindal Stainless Foundation and Ms. Savitri Devi Jindal, Chairperson, Jindal Group of Industries, visited the various social philanthropy projects run by Jindal Stainless Ltd on 03.11.2022. They first, visited Solei Sewing Training Centre, Dangadi, JIIT Electrical Workshop, Sahaj Sanitary Napkin Making Unit, Asmita Production Centre, Waste Material Management Centre, Dangadi and emphasized on the quality and value of each work. Later, she attended a



meeting organized by women SHGs at Bagei Mahadev Temple premises in Balungabandi village, observed the quality of masalas prepared by women and

expressed all necessary cooperation for mass marketing. The Bagei Mahadev temple and its premises have been developed by the Jindal Company at a cost of

Rs 32 lakhs. Apart from this, members and workers have published autobiographies of how they have developed by being associated with Jindal

Foundation for the last 10/12 years. Seeing that Deepika Devi and Savitri Devi gained self-satisfaction and further discussed how the development of women and the quality of computer education can be improved. The visit was attended by Brigadier Rajeev Williams, CSR Corporate Head of Jindal Stainless Ltd., Ms. Sangeeta Singh, Mr. Sukanta Kumar Rath, Mr. Sanjay Kumar Mohanty, Mr. Hemant Kumar B. 8/8 and the staff of Jindal Stainless Foundation, Jajpur.



A photograph of a paved road that curves gently through a dense forest. The trees are tall and slender, with lush green foliage that fills the upper two-thirds of the frame. Sunlight filters through the canopy, creating a dappled light effect on the road and the forest floor. The road is a light gray color, and the ground on either side is covered in green grass and some fallen leaves. The overall atmosphere is peaceful and serene.

THE JOURNEY CONTINUES.....



# **Environmental Monitoring Report for the Period October - 2022 to March-2023**

## **INDEX**

- A. Stack Analysis
- B. Ambient Air Quality
- C. Noise Monitoring
- D. Ground Water Quality



## A. Stack Analysis:

Monitoring Results of Stack Analysis								
Sl. No.	Sampling Stations	Monthly Average Concentration of Particulate Matter (mg/Nm <sup>3</sup> )						Permissible limits as per SPCB
		Oct. - 22	Nov. - 22	Dec. - 22	Jan. -23	Feb. - 23	Mar. - 23	
1	HSM (Re – Heating Furnace)	18.2	20.6	18.8	20.4	17.9	18.6	100

## B. Ambient Air Monitoring Report:

AAQ near Nursery

Sl. No .	Parameters	Monthly Average concentration						Permissible limits as per SPCB
		Oct. - 22	Nov. - 22	Dec. - 22	Jan. -23	Feb. - 23	Mar. - 23	
1	PM <sub>10</sub> µg/m <sup>3</sup>	52.8	58.2	62.8	71.8	68.8	72.4	100(24 Hrs)
2	PM <sub>2.5</sub> µg/m <sup>3</sup>	27.3	28.4	30.2	32.6	30.2	34.2	60 (24 Hrs)
3	SO <sub>2</sub> µg/m <sup>3</sup>	17.6	18.0	18.8	20.2	19.4	21.6	80(24 Hrs)
4	NO <sub>x</sub> µg/m <sup>3</sup>	12.8	13.2	14.6	15.6	15.2	17.2	80(24 Hrs)
<b>NB:</b> Parameters such as Lead, Ozone, Ammonia, Benzene, Benzopyrene, Arsenic & Nickel found to be below detection limit (BDL).								





### AAQ near Security Barrack

Sl. No .	Parameters	Monthly Average concentration						Permissible limits as per SPCB
		Oct. - 22	Nov. - 22	Dec. - 22	Jan. -23	Feb. - 23	Mar. - 23	
1	PM <sub>10</sub> µg/m <sup>3</sup>	77.6	78.2	77.6	79.6	80.6	82.1	100(24 Hrs)
2	PM <sub>2.5</sub> µg/m <sup>3</sup>	35.9	35.6	35.2	38.4	38.8	39.6	60 (24 Hrs)
3	SO <sub>2</sub> µg/m <sup>3</sup>	20.6	23.2	23.4	24.8	25.2	27.4	80(24 Hrs)
4	NO <sub>x</sub> µg/m <sup>3</sup>	16.6	16.8	17.0	19.2	19.4	19.8	80(24 Hrs)
<b>NB:</b> Parameters such as Lead, Ozone, Ammonia, Benzene, Benzopyrene, Arsenic & Nickel found to be below detection limit (BDL).								

### AAQ near PFS Scrap Yard

Sl. No .	Parameters	Monthly Average concentration						Permissible limits as per SPCB
		Oct. - 22	Nov. - 22	Dec. - 22	Jan. -23	Feb. - 23	Mar. - 23	
1	PM <sub>10</sub> µg/m <sup>3</sup>	72.2	74.0	76.8	80.2	79.8	79.6	100(24 Hrs)
2	PM <sub>2.5</sub> µg/m <sup>3</sup>	30.6	31.8	34.4	38.8	38.6	38.8	60 (24 Hrs)
3	SO <sub>2</sub> µg/m <sup>3</sup>	18.7	20.2	22.6	25.2	24.8	26.6	80(24 Hrs)
4	NO <sub>x</sub> µg/m <sup>3</sup>	15.4	15.8	16.2	19.6	18.8	19.2	80(24 Hrs)
<b>NB:</b> Parameters such as Lead, Ozone, Ammonia, Benzene, Benzopyrene, Arsenic & Nickel found to be below detection limit (BDL).								



## AAQ near HSM Utility Store - 2

Sl. No.	Parameters	Monthly Average concentration						Permissible limits as per NAAQS, 2009
		Oct. - 22	Nov. - 22	Dec. - 22	Jan. - 23	Feb. - 23	Mar. - 23	
1	PM <sub>10</sub> µg/m <sup>3</sup>	71.6	72.2	75.5	78.6	79.2	79.4	100(24 Hrs)
2	PM <sub>2.5</sub> µg/m <sup>3</sup>	30.1	30.8	34.0	37.8	38.0	38.2	60 (24 Hrs)
3	SO <sub>2</sub> µg/m <sup>3</sup>	18.2	19.4	21.6	24	24.6	26.4	80(24 Hrs)
4	NO <sub>x</sub> µg/m <sup>3</sup>	18.3	15.4	15.8	18.8	18.6	19.2	80(24 Hrs)
<b>NB:</b> Parameters such as Lead, Ozone, Ammonia, Benzene, Benzopyrene, Arsenic & Nickel found to be below detection limit (BDL).								

## C. Noise Monitoring Report:

### i. Ambient Noise Monitoring Data

Noise Level Monitoring Results at Different Locations of the Plant								
Sl. No.	Location	Monthly Average Noise Level						Permissible limits as per CPCB
		Oct. - 22	Nov. - 22	Dec. - 22	Jan. - 23	Feb. - 23	Mar. - 23	
		DAY TIME						
1.	At Nursery	59.8	60.2	60.2	64.0	66.2	68.2	75 dB(A)
2.	At Security Barrack	65.5	68.6	68.6	67.8	69.4	70.8	
3.	At PFS Scrap Yard	65.7	66.2	68.2	70.2	70.0	72.6	
4.	At HSM Utility Store-2	64.8	64.2	62.4	68.7	66.8	68.2	
		NIGHT TIME						
1.	At Nursery	50.4	50.8	50.8	55.2	55.0	57.5	70 dB(A)
2.	At Security Barrack	58.0	58.4	58.4	56.2	56.4	58.1	
3.	At PFS Scrap Yard	58.1	58.4	56.6	55.8	55.4	56.0	
4.	At HSM Utility Store-2	56.6	56.8	55.1	55.2	55.5	55.8	



## ii. Work Zone Noise Monitoring Data

Noise Level Monitoring Results at Different Locations of the Plant								
Sl. No.	Location	Monthly Average Noise Level ( Leq in dB(A) )						Permissible limits as per Factory Act
		Oct. - 22	Nov. - 22	Dec. - 22	Jan. -23	Feb. - 23	Mar. - 23	
1	Near Roughing Mill	80.4	80.8	80.8	81.2	81.6	82.0	85 dB(A)
2	Near Re heating Furnace	82.2	82.0	82.0	81.8	81.2	81.8	
3	Near PFS area	79.6	80.4	80.4	79.2	79.6	79.2	
4	Near Adm. office	77.2	78.1	78.1	79.6	79.2	79.6	
5	Near Pump house	73.1	74.5	74.5	78.0	78.4	78.2	



## E. Ground Water Quality:

**Table D1: January'23**

Sl. No.	Parameter	Limit as per IS 10500 :2012		Date of sampling: 24.01.2023	
		Acceptable Limit	Permissible limit	GW1	GW2
1	Colour, Hazen Units	5	15	<5	<5
2	Odour	Agreeable	Agreeable	Agreeable	Agreeable
3	pH	6.5 - 8.5	6.5 - 8.5	7.5	6.9
4	Turbidity, NTU	1	5	7.8	9.0
5	Total dissolve solid, mg/l	500	2000	217.4	128.4
6	Total Hardness (as CaCO <sub>3</sub> ), mg/l	200	600	118.2	97.1
7	Iron (as Fe), mg/l	1.0	1.0	0.8	0.4
8	Chloride (as Cl), mg/l	250	1000	34.0	25.8
9	Residual Free Chlorine, mg/l	0.2	1.0	<0.1	<0.1
10	Fluoride (as F), mg/l	1.0	1.5	<0.1	<0.1
11	Calcium (as Ca), mg/l	75	200	59.2	34.8
12	Magnesium(as Mg), mg/l	30	100	16.2	24.3
13	Copper(as Cu), mg/l	0.05	1.5	<0.02	<0.02
14	Manganese (as Mn), mg/l	0.1	0.3	<0.05	<0.05
15	Sulphate (as SO <sub>4</sub> ), mg/l	200	400	4.2	1.6
16	Nitrate (as NO <sub>3</sub> ), mg/l	45	45	2.8	0.8
17	Phenol (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	0.001	0.002	< 0.002	< 0.002
18	Mercury,(as Hg), mg/l	0.001	0.001	<0.004	<0.004
19	Cadmium (as Cd), mg/l	0.003	0.003	<0.01	<0.01
20	Selenium (as Se ), mg/l	0.01	0.01	< 0.001	< 0.001
21	Arsenic ( as As), mg/l	0.01	0.05	< 0.004	< 0.004
22	Cyanide (as CN), mg/l	0.05	0.05	<0.02	<0.02
23	Lead (as Pb), mg/l	0.01	0.01	<0.01	<0.01
24	Zinc (as Zn ), mg/l	5	15	<0.1	<0.1
25	Anionic Detergents (as MBAS), mg/l	0.2	1.0	<0.1	<0.1
26	Total Chromium (as Cr), mg/l	0.05	0.05	< 0.02	<0.02
27	Mineral Oil, mg/l	0.5	0.5	< 0.2	< 0.2
28	Total Alkalinity( as CaCO <sub>3</sub> ), mg/l	200	600	132.7	114.5





29	Aluminium (as Al), mg/l	0.03	0.2	< 0.1	< 0.1
30	Boron (as B), mg/l	0.5	1.0	< 0.1	< 0.1
31	Nickel (as Ni), mg/l	0.02	0.02	<0.05	<0.05
32	Molybdenum (as Mo), mg/l	0.07	0.07	<0.1	<0.1
33	Coliform Organisms, (MPN/100ml)	Nil	Nil	Absent	Absent
34	E Coli (MPN/100 ml)	Nil	Nil	Absent	Absent

**N.B:-** GW1: Tube well near Manpur Hauling Colony, GW2: Tube well near Visa Railway Crossing

## **Online Monitoring Report for the Period October - 2022 to March-2023**

### **INDEX**

- A. Continuous Ambient Air Quality Monitoring Report
- B. Continuous Emission Monitoring Report
- C. Effluent Quality Monitoring Report

## A. Continuous Ambient Air Quality Monitoring System (CAAQMS) report:

### Location - Near Nursery

Sl. No.	Parameters	Monthly Average concentration						Permissible limits as per SPCB
		Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23	
1	PM <sub>10</sub> (µg/m <sup>3</sup> )	63.33	81.89	41.92	58.94	54.42	73.70	100(24 Hrs)
2	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	36.28	63.33	34.57	32.74	26.78	31.60	60 (24 Hrs)
3	SO <sub>2</sub> (µg/m <sup>3</sup> )	23.10	23.32	24.21	24.89	26.17	30.85	80(24 Hrs)
4	NO <sub>x</sub> (µg/m <sup>3</sup> )	12.10	12.24	13.51	14.32	15.10	17.57	80(24 Hrs)
5	CO (µg/m <sup>3</sup> )	1.23	1.40	1.52	1.56	1.40	1.47	02 (08 Hrs)

### Location - Near Security Barrack

Sl. No.	Parameters	Monthly Average concentration						Permissible limits as per SPCB
		Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23	
1	PM <sub>10</sub> (µg/m <sup>3</sup> )	84.78	63.60	75.25	42.26	67.48	77.86	100(24 Hrs)
2	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	48.97	55.75	32.56	37.55	30.51	27.54	60 (24 Hrs)
3	SO <sub>2</sub> (µg/m <sup>3</sup> )	40.60	42.73	44.01	43.93	43.28	43.57	80(24 Hrs)
4	NO <sub>x</sub> (µg/m <sup>3</sup> )	28.42	24.61	30.27	28.12	29.15	25.75	80(24 Hrs)
5	CO (µg/m <sup>3</sup> )	0.26	0.45	0.51	0.52	0.44	0.40	02 (08 Hrs)

**Location - Near CPP**

Sl. No.	Parameters	Monthly Average concentration						
		Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	March'23	Permissible limits as per SPCB
1	PM <sub>10</sub> (µg/m <sup>3</sup> )	81.62	96.13	50.93	43.05	52.63	67.08	100(24 Hrs)
2	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	29.93	56.90	35.21	23.81	18.19	24.22	60 (24 Hrs)
3	SO <sub>2</sub> (µg/m <sup>3</sup> )	39.95	41.11	44.01	43.85	49.60	46.85	80(24 Hrs)
4	NO <sub>x</sub> (µg/m <sup>3</sup> )	45.34	39.26	39.10	34.85	25.66	21.96	80(24 Hrs)
5	CO (µg/m <sup>3</sup> )	0.65	0.77	0.92	0.95	0.77	0.81	02 (08 Hrs)

**Location - Near Tata Corner**

Sl. No.	Parameters	Monthly Average concentration						
		Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	March'23	Permissible limits as per SPCB
1	PM <sub>10</sub> (µg/m <sup>3</sup> )	69.95	64.32	36.51	34.65	29.07	38.07	100(24 Hrs)
2	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	34.09	42.59	32.25	19.54	8.92	13.93	60 (24 Hrs)
3	SO <sub>2</sub> (µg/m <sup>3</sup> )	36.31	36.59	37.64	38.62	39.60	39.85	80(24 Hrs)
4	NO <sub>x</sub> (µg/m <sup>3</sup> )	17.36	10.44	10.60	11.03	11.06	11.04	80(24 Hrs)
5	CO (µg/m <sup>3</sup> )	0.29	0.46	0.56	0.61	0.46	0.45	02 (08 Hrs)



**Location – Near PFS Scrap yard**

Sl. No.	Parameters	Monthly Average concentration						Permissible limits as per SPCB
		Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	March'23	
1	PM <sub>10</sub> (µg/m <sup>3</sup> )	40.84	60.11	58.83	74.26	52.96	89.03	100(24 Hrs)
2	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	23.77	43.26	21.59	18.55	10.78	40.00	60 (24 Hrs)
3	SO <sub>2</sub> (µg/m <sup>3</sup> )	13.26	14.21	13.23	16.26	13.69	14.53	80(24 Hrs)
4	NO <sub>x</sub> (µg/m <sup>3</sup> )	33.77	20.03	9.70	7.34	33.38	48.23	80(24 Hrs)
5	CO (µg/m <sup>3</sup> )	0.39	0.54	0.66	0.52	0.96	1.05	02 (08 Hrs)

**B. Continuous Emission Monitoring System (CEMS) report:**

Sl. No.	Sampling Stations	Parameters	Monthly Average Concentration of PM, SO <sub>2</sub> & NO <sub>x</sub> (mg/Nm <sup>3</sup> )						
			Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	March'23	Permissible limits as per SPCB
1	RHF	PM	9.61	9.53	9.86	9.66	9.64	9.70	100
		SO <sub>2</sub>	31.68	31.70	31.62	31.67	31.56	31.64	1000
		NO <sub>x</sub>	5.22	5.28	5.34	5.31	5.86	5.40	300
2	Shot Blaster	PM	30.13	24.95	19.62	18.90	16.51	17.06	100
3	HPL Shot Blaster	PM	18.04	18.33	18.47	18.62	8.86	9.60	100

**C. Location: HPL ETP Outlet**

Sl. No.	Parameters	Monthly Average concentration						Permissible limits as per SPCB
		Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	March'23	
1	TSS	30.02	45.90	45.29	54.68	89.89	71.93	0 - 100.0 mg
	pH	7.26	7.32	7.35	7.40	7.30	6.92	5.5 - 9.0 pH