

## **FORM-V**

### **ANNUAL ENVIRONMENTAL STATEMENT (Rule 14 of The Environment Protection 1986)**

**Environmental Statement for the financial year ending with  
31<sup>st</sup> March 2022**

#### **PART-A**

1	Name and address of the owner Occupier of the industry Operation of process	Mr. B.N.S.Prakash Rao Executive Vice President JSW Steel Limited, Salem works Pottaneri & M. Kalipatti Village Salem Dist – 636 453
2	Industry category Primary	Red – Large
3	Production Capacity	Captive Power- 3 x 30 MW
4	Year of establishment	2006 & 2019
5	Date of the last environmental statement submitted.	29 <sup>th</sup> June 2021

#### **Production details against the Consent quantity**

<b>SI.NO</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Actual</b>
<b>Product details</b>				
1	Power generation (Captive)	MW	90	66.54

## PART - B

### Water and Raw Material Consumption:

#### i. Water consumption in m<sup>3</sup> /d (@ 365 days / year )

Process: 45 m<sup>3</sup>/day

Cooling: 3562 m<sup>3</sup>/day

Domestic: 80 m<sup>3</sup>/day

Name of Products	Specific Water consumption per unit of products	
	During the financial year (2020 – 21)	During the financial year ( 2021 – 22)
Captive power (m <sup>3</sup> /MWH)	2.49	2.25

#### ii. Raw material consumption

Name of raw materials	Name of Products	Consumption of raw material per unit of output	
		During the financial year (2020 – 21)	During the financial year ( 2021 – 22)
Coal (MT)	Power Generation	126974	143259
LDO (KL)		53.3	12.1
Bed Material (MT)		602	574

**PART-C**  
**Pollution discharged to environment/unit of output**  
 (Parameter as specified in the consent issued)

**a. Water Environment:**

In CPP II 60 MW unit (2 x 30 MW) installed with water cooled condenser and additional unit#3 (1 x 30 MW) installed with Air cooled condenser whereby about 2300 KLD of fresh water consumption is reduced. Wastewater is being generated from water treatment plant and from unit of 2 x 30 MW is collected in to a neutralization tank and after ensuring the pH partially treated water is sending to steel plant wastewater treatment plant (Guard Pond) for further treatment and reuse in steel plant as per CTO approval. Since, unit#3 (1 x 30 MW) is installed with air cooled condenser a small auxiliary cooling system is installed and about 5 KLD of trade effluent generated from the unit#3 is also connected with steel plant Guard pond for treatment and reuse. As per the CTO the approved quantity of trade effluent generation is 705 KLD from CPP II – 90 MW and the year average is about 500 KLD. Online analysers like pH,TSS and Temperature are installed and the real time values are connected with WQW,TNPCB and CPCB servers. There is no effluent discharge inside or outside the premises. Sewage effluent generated (about KLD) is treated through septic tank and followed by dispersion trench

**b. Air Environment**

**i) Details of the Stack Emission from the Plant**

The details of the average Stack Emission for the year 2021 – 22 are given under.

Pollutants prescribed	Prescribed the Limits (mg/Nm <sup>3</sup> )	Quantity of pollution Discharged (kg/day)	Con. of pollution in Discharged (mg/Nm <sup>3</sup> )	% of variation from Prescribed Standards with
PM	50	73.48	25.7	Zero % variation
SO <sub>2</sub>	-----	1349	260	
NO <sub>x</sub>	----	1206	232	

## PART-D HAZARDOUS WASTES

As specified under Hazardous and other Wastes (Management & Transboundary Movement) rules 2016 the waste generation, storage and disposal details are given below and a valid authorization (valid till 31.03.2026) obtained from the board.

### a. From Process

Hazardous Wastes	Authorization Qty as per HWMR (MT/Annum)	Total Quantity (MT)	
		During the financial year ( 2021 – 2022 )	During the current financial year ( 2021 – 2022 )
5.1 - Used / Spent oil	3.5	2.08	3.29
5.2 - Waste / Residues containing oil (Used Grease)	2.5	0	0
5.2 - Waste / Residues containing oil(Oil Soaked Waste)	3.5	0.78	0.64
3.3 - Sludge and filters contaminated with oil (Furnace oil cleaning sludge once in 5 Years)	0.5	-	-
33.1 - Discarded containers / Barrels / Liners contaminated with hazardous waste / Chemicals	2.0	0.35	0.85
35.3 Chemical sludge from Waste water treatment	20	-	0.09
35.3 Chemical sludge from Waste water treatment(ESEP)	5	-	0.23

**b. From Air Pollution Control Facilities**

Fly ash including from Air pollution control (ESP) facility is collected and stored in dedicated Silo. The collected fly ash is disposed to brick manufacturing units.

**The Batteries (Management & Handling) Rules, 2001 Generation and disposal**

Battery Waste	Total Quantity (MT)	
	During the financial year ( 2020 – 2021 )	During the current financial year ( 2021 – 2022 )
	Disposal	Disposal
Lead and lead compounds (Used Battery)	6.73	1.88

**PART - E  
SOLID WASTES: (Generation)**

Solid Wastes	Total Quantity (MT) Generation	
	During the previous financial year ( 2020- 21)	During the current financial year ( 2021 –22)
<b>a. From process:</b>		
Used Bed Material	2147	2796.12
Fly Ash	-	-
<b>b. From Pollution Control Facility:</b>		
Fly Ash including from ESP	10674	9407.7
<b>c. 1.Quantity recycled or re-utilized with in the unit</b>		
Used Bed Material	1908	2042.3
Fly Ash	0	0
<b>(2) Sold</b>		
Fly Ash	-	-
<b>(3) Disposed</b>		
Fly Ash	10732	9435.94

## 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.	Description of the Waste	Characteristics	Disposal Quantity (TPA)	Method of Disposal
<b>Non Hazardous Waste</b>				
1	Used Bed Material	Non Hazardous	2042.3	Reused in AFBC boiler
2	Fly Ash	Non Hazardous	9407.7	100 % disposed to Fly ash bricks manufacturing units .
<b>Hazardous Waste</b>				
1	Waste / Residues containing oil (Oil soaked cotton waste)	Hazardous	0.53	Sent to TNPCB authorized agency
2	Waste / Residues containing oil (Used Grease)	Hazardous	-	-
3	Used / Spent oil ( Litres / Year)	Hazardous	3.29	Sent to TNPCB authorized agency
4	Discarded containers / Barrels / Liners contaminated with hazardous waste / Chemicals	Hazardous	0.85	Sent to TNPCB authorized agency
5	Sludge and filters contaminated with oil (Furnace oil cleaning sludge once in 5 Years)	Hazardous	-	-

## **PART-G**

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

Most of the pollutants generated are controlled at source by Air pollution control facilities like Bag filters, Electro Static Precipitator and Water Sprinklers.

Operation and Maintenance of pollution control equipments increases the manufacturing cost of power generation. Solid waste generated like fly ash is disposed 100% to Fly ash brick manufacturers. Used bed material (Refractory materials which is used for boiler bed fluidization) is recycled /reused in the boiler process due to this there will be a reduction in cost of power production.

## **PART - H**

### **Additional measures / investment proposal for environmental protection including abatement of pollution.**

- In Unit 3 (1 x 30 MW) Air Cooled Condenser (ACC) is installed in place of Water Cooled condenser (WCC) whereby fresh water conservation will be 2300 KLD.
- Coal based boiler ESP is upgraded to meet the emission standard of 50 mg/Nm<sup>3</sup>.
- Improved waste heat recovery from Coke oven battery number#3 to the reduction of GHG emission about 3550 MT
- Maximize Power generation through waste gas utilization is 73 % and coal based is 27%
- Usage of low Sulphur coal at CPP 2 for reduction of gaseous emission
- Green belt developed about 1000 sapling.
- Waste heat Boiler Stack analyzer reliability improvement.
- Usage of Biofuel up to 5% coal based boiler

## **PART - I**

### **MISCELLANEOUS**

**Any other particulars in respect of environmental protection and abatement of pollution.**

#### **Tree Details**

JSW Steel Ltd including CPP2 has planted 2,36,985 trees and saplings up to March 2022 under the green belt development to control the noise level and dust emission out of the boundary. JSW is committed to improving the quality of life of the community. Our focus on all round improvement of the Community through our Corporate Social Responsibility(CSR) and CER. A robust CSR policy is made with emphasis on areas like, Livelihood Initiatives, Education, Health, Infrastructure and Environment. With the strong association with Stakeholders i.e. local leaders and partnership with NGO's helps us to understand the community needs and widen our reach. The CSR & CER details are attached as annexure -I & Annexure-II.

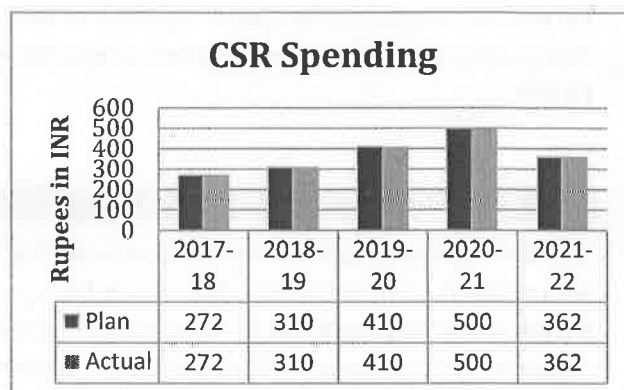


### REPORT FOR THE PERIOD of April 2021 to March 2022

#### Background

JSW is deeply conscious of its vision and responsibilities to the community around the plant. Empowering citizen with better health, education and employment opportunities is JSW's mission. JSW is committed to improve the quality of life of surrounding community through Corporate Social Responsibility (CSR) programmes. We have well laid down community development program under CSR. Our focus is on

- Health
- Education
- Environment
- Women Empowerment
- Sports and
- Rural Infrastructure Development.



People in Pottaneri, M.Kalipatti, Kuttapatti, Viruthasampatti, Gonur Panchayats and Mecheri Town are covered under CSR projects. Our CSR spending for the financial year 2022 is Rs. 3.62 Crores.

#### LIVELIHOOD – Trained 30 womens

We have trained 30 female candidates and they have gained knowledge of more than 30 Jute products making such as: Shopping bags, fancy handbags, file folders, pencil pouches, purses, mobile pouches and so forth. All the candidates who have attended the training are very new to sewing machines but after completion of the training, they have become experts in handling normal and power machines. And all 30 of them have completed the training successfully. Now the candidates can make the jute products making on their own. We have encouraged to continue their work in jute product making the same they have showed willingness.



#### WOMEN EMPOWERMENT PROGRAMME - BPO

JSW – CSR has initiated BPO with 30 female candidates. We are empowering women to be economically independent. We have recruited candidates from economically weaker section families.



### HEALTH – Yoga Education

We are mobilising 600 people from Pottaneri Panchayat, Savadiyur village. The main objective is to physical, mental & social health of the village by creating awareness through yoga, preventive health care, counseling & environment awareness. Most importantly educating mind and stress management through yoga practice. So far we have touched 600 people irrespective of their age and gender. Also conducted 12 homeopathic health camps for the benefit of the people.



### HEALTH – Eye Camp

In order to prevent vision issues in the surrounding community, we are conducting eye camps and distributing free spectacles based on people vision requirements in surrounding villages. Through this initiative we have targeted 7000 individuals members this year. So far we have screened 5314 individuals and 2720 spectacles have distributed. And 35 village camps were being conducted in 4 panchayats (M.Kalipatti, Pottaneri, Virudhasampatti & Kuttapatti panchayats). People are getting enormous support from this initiatives.



### EDUCATION – JSW ASPIRE Program

To improve life skills among young generation. We have initiated life skill training program, through this initiatives targeted 1200 students from 7 government schools within radiation of 5 km. Enhancing the children's life skills, carrier counselling, problem solving & critical thinking. This initiative is not only targeted schools children but also educating their parents regarding the importance of education. Also established Community Learning Center (CLC) at community level to reach children as well their parents.



### RURAL DEVELOPMENT – Rural Mart

JSW Foundation has constructed the “Rural Mart” as part of rural development projects at Pottaneri Panchayat (DIZ). There are 3000 households in Pottaneri panchayat also encompasses its cluster villages. This initiative is to avoid inconvenient & small risks to public during the weekly market. Especially targeted women's group to get their daily needs in a comfortable & hygienic place.



Also this initiative would give a platform to small scale farmers to sell their products in the weekly market. The worth of this initiative is RS. 1700000/-

### COMMUNITY DEVELOPMENT – Haqdarshak Program

The Community development project has initiated on August, 2021. We are supporting to the needy community members in availing the government welfare schemes such as: Citizenship Cards, widow certificate, income certificate, old age pension and so forth. Last two years we have received 19008 applications and availed facilities for the same. The multiple camps are being conducted in every Panchayat to reach out every individual from our DIZ. This year we have reached out 20000 beneficiaries.



### ENVIRONMENT – Greening Initiative



Every year JSW is planting 5000 saplings in and around villages to increase green cover and to control air politions.



### ENVIRONMENT – Mhavanam Project

We have established the Mhavanam forest in three public locations by following the method of Miyawaki. Miyawaki method to increase green cover in Salem. Developing miyawaki method would contribute significantly to control human pollution and contribute towards the global climate change; JSW-CSR is indented to bring sustainable change in surrounding environment by involving in the development of forest to increase green cover at around plant and Salem. On average, one acre of new forest can sequester about 2.5 tons of carbon annually. In one year, an acre of forest can absorb twice the CO2 produced by the average car's annual mileage.



### EDUCATION – Model School Development



We have adopted Amarathanoor Government Middle school to develop as Model School by sponsoring needed supports for the development of school.



### EDUCATION – Classroom Renovated at 2 Govt Schools

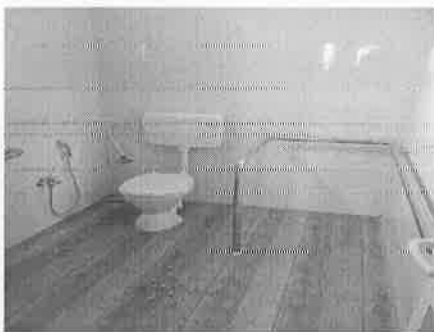


This year we have renovated 2 government school clasroom & installed paver block in school ground on request basis from the school head masters. An unused classroom converted into accustomed classrooms for the benefit of rural children. Creating good learning admosphear to



government school children is our primary focus. Through this intervention 295 children are getting benefit by accessing the schools and play grounds.

### EDUCATION – Early Intervention center



We have constructed a Early Intervention Center at Nangavalli. For the benefit of special children and constructed woth of Rs.1200000/- building with the facilitiy of child user friendly toilet. Every year 77 children are accessing this center and children's parents



and teachers are gleeful with our intervention.

### WATER – Installed 2 RO Plants

We have installed 2 RO plants in M.Kalipatti and Virudhasampatti Panchayats worth of Rs.1200000/-. To ensure quality and clean water for community members. Through this initiative we are addressing 3000 households.



**ENVIRONMENT SOCIAL COMMITMENT : HALF YEARLY REPORT April 2021 to March 2022**

JSW steel Ltd., Salem works is the only Integrated steel plant in Tamil Nadu and presently operating with production capacity of 1.15 MTPA. JSW Steel Limited, Salem works is highly committed to protect the environment with distinctive focus on Triple bottom growth for sustainable development. The organization has always maintained Statutory and Regulatory compliances and believes in maintaining harmony with all the stake holders and contributes to societal support activities like:

- Water shed programmes
- Supplying drinking water
- Sanitation facilities
- Road repair/constructions
- Health camps
- Education activities, etc.

**HEALTH – Covid Care Center**

Salem district is reporting more number of Covid cases and the district administration is taking all efforts to control the spread and treat every COVID affected patient with utmost care. To tackle the present scenario, we have supported district administration for setting up of permanent 1000 bedded Covid Care Center at Salem District. This intervention is immensely supportive to treat Covid affected patients equally regardless of their economic status. Also this center is helping to mitigate COVID-19 spread.



**COMMUNITY SUPPORT - Pongal Sports**

We have sponsored to conduct rural sports at Pottaneri village. The Rural Sports conducted to encourage young children to upbring their talents, the rural sports included a number of competitions like Rangoli, Athletics, running race etc., every year during Pongal Festival. We are sponsoring since 2013, This year have directed to sponsor the prizes.



**Advanced Printer and Television Sponsored by JSW**

JSW sponsored a advanced printers and TV to Salem District Collector Office worth of Rs. 100000/-

**Sponsored Cement/Steel RCC pipe**

We have sponsored cement/steel RCC pipe to Pottaneri Panchaya to control the overflow of water during rainy season.



**Almera & Chairs Sponsored to Anganwadi & Schools by JSW**

JSW sponsored 10 Almeras and 30 Chairs to the surrounding selected Anganwadi centers and Mecheri Girls' School.

