JSW Steel Limited

JSW Steel

JSWSL/CPPII/ENVT/Form-V/2023-24/78
20th September 2024

To,

The District Environmental Engineer
Tamil Nadu Pollution Control Board
1.276, Meyyanur Main Road,
Siva Tower, Salem – 636 004.

Dear Sir,

Sub: CPP II - Submission of Environmental Statement (Form-V) for the financial year 2023-24
Ref: CTO dated 08.04.2022 - General Condition 16C under Water Act, 1974

Please find enclosed herewith the Environment Statement duly filled in Form–V under the Environmental (Protection) Act, 1986 for the period of **April 2023 – March 2024.**

This is for your kind information and kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully,
For JSW Steel Limited, Salem Works, CPP II

B N S Prakash Rao
Executive Vice President & Plant Head

CC:

The Joint Chief Environmental Engineer (M) Salem Zone,
TNPCB, Salem

20 SEP 2024

Salem Works
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JINDAL
O P Jindal Group

ENVIRONMENTAL STATEMENT

[Form – V]

Reporting Period : FY 2023 - 2024

JSW Steel Limited, CPP-II
Salem Works

Submitted by:
JSW Steel Limited., Salem Works,
Pottaneri (P.O), Mecheri,
Mettur-(Tk), Salem(Dt)
Tamil Nadu, India, 636453

FORM-V
(Rule 14 of The Environment Protection,1986)
Environmental Statement for the financial year ending on 31st March 2024
PART-A

1	Name and address of the owner, occupier of the industry Operation or process	Mr. B. N. S. Prakash Rao Executive Vice President, Plant Head JSW Steel Limited, Salem Works Pottaneri & M. Kalipatti Village Salem District – 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.	26.09.2023

Production details against the Consent quantity

Sl. No.	Description	Unit	Consented Quantity	Actual Quantity
Product details				
1	Power generation (Captive)	MW	90	67.32

PART - B

Water and Raw Material Consumption:

1. Water consumption in m^3/d @ 350 days

i. Process : 27 m^3/day
ii. Cooling : 3696 m^3/day
iii.Domestic : 33 m^3/day

Sl. No.	Name of Products	Specific Water consumption per unit of product	
		FY 2022-2023	FY 2023-24
1	Captive power (m^3/MWH)	2.20	2.19

** 2 no. of WCC & 1 no. of ACC*

2. Raw material consumption and production

Sl. No.	Name of raw materials	Name of Products	Consumption of raw material per unit of output	
			FY 2022-2023	FY 2023-24
1	Coal (MT)	Power Generation	117523	129087
2	**Biomass (MT)**		**6007**	**6952**
3	LDO (KL) for startup		15.8	36.30
4	Bed Material (MT)		311.5	407.25

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

(a) Water Environment:

Sl. No.	Pollutants	Quantity of Pollutants discharged (Kg/day)	Concentration of Pollutants discharged (mg/l)	Percentage of variation from prescribed standards with reasons
1	Pollutants discharged due to the sewage of Plant STP	NA	NA	--

As per the CTO the consented quantity of sewage generation is about 3.7 KLD which is treated through septic tank and followed by soak pit.

As per the CTO the approved quantity of trade effluent generation is 705 KLD from CPP II – 90 MW and the year average trade effluent generation is about 532 KLD and the same is sent to Steel Plant Guard Pond facility for collection, storage, treatment and reuse in Steel plant as per the Consent. In the CPP II online analyzers like pH, TSS and Temperature are installed (trade effluent pit discharge) and the real time values are connected with WQW, TNPCB and CPCB servers. There is no Sewage or trade effluent discharge within or outside the premises.

(b) Air Environment

Details of the Stack Emission from the Plant

The details of the average stack emission for the year 2023 – 24 are given below

Sl. No.	Pollutants prescribed	Prescribed limits (mg/Nm^3)	Quantity of pollution Discharged (kg/day)	Con. of pollution in Discharged (mg/Nm^3)	% of variation from Prescribed Standards with reasons.
1	SPM	50	76.3	35.4	No variation. Air quality parameters are within the prescribed standards by TNPCB.
2	SO_2	600	1468	540	
3	NOx	450	1191	439	

PART-D
HAZARDOUS WASTES (Generation)

As specified under Hazardous and other Wastes (Management & Transboundary Movement) Rules 2016.

(a) From process

Sl. No.	Haz. Waste Category	Hazardous Wastes generated	Authorization Qty. as per HWA (MT/Annum)	Total Quantity (MT)	
				FY 2022-23	FY 2023-24
1	3.3	Sludge and filters contaminated with oil	0.5	-	0.48
2	5.1	Used / Spent oil	3.5	1.41	16.23
3	5.2	Wastes / Residues containing oil (Used Grease)	2.5	0.23	-
4	5.2	Waste / Residues containing oil (Oil Soaked cotton Waste)	3.5	0.62	0.90
5	33.1	Discarded containers / Barrels / Liners contaminated with hazardous waste / Chemicals	2.0	0.17	0.65
6	35.3	Chemical Sludge from wastewater treatment	20.0	1.69	0
7	35.3	Chemical Sludge from wastewater treatment (ESEP)*	5.0	0.09	0

- As per the CTO dated 08.04.2022, Unit 3 (1 x 30 MW) Trade Effluent 5 KLD is also connected with Steel Plant Guard Pond for treatment and disposal. Hence, Elevated Solar Evaporation Pan not applicable and salt generation also not applicable.

- Used oil generation of 14.21 MT during the shutdown activity (STG I – 10 years once activity) was disposed to authorized recyclers same has been communicated to your esteemed office vide reference JSWSL/CPP-II/ENVT/HWMHTM/DEE/2023-24/63 dated 05thJuly 2023

(b) From Air Pollution Control Facilities

No Hazardous waste generated from APC measures.

Disposal quantity under the Batteries (Management & Handling) Rules, 2001

Sl. No.	Battery Waste disposal	Total Quantity (MT) Disposal	
		FY 2022-23	FY 2023-24
1	Lead and lead compounds (Used Batteries)	0.290	4.538

PART – E

SOLID WASTE (Generation)

Sl. No.	Solid Wastes	Total Quantity (MT)	
		FY 2022-23	FY 2023-24
a.	**From Process**		
i	Used Bed material	756	-
ii	Fly ash	NA	NA
b.	**From Pollution Control Facility**		
i	Fly Ash including ESP	8198	9335
c.	**Quantity of recycled or re-utilized within the plant**		
i	Used Bed Material	0	0
ii	Fly Ash	0	0
d.	**Sold/Disposed**		
i	Used Bed Material	740	381
ii	Fly ash	8133	9410

PART – F

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

TPA- Tonnes Per Annum

Sl. No.	Description of the Waste	Characteristics	Disposal Quantity (TPA)	Method of Disposal
Non Hazardous Waste				
1	Used Bed Material	Non Hazardous	381	Reused in AFBC boiler
2	Fly Ash	Non Hazardous	9410	100% disposed to Fly ash bricks manufacturing units .
Hazardous Waste				
1	Sludge and filters contaminated with oil	Hazardous	0.48	Sent to TNPCB authorized agency
2	Used / Spent oil	Hazardous	16.23	Sent to TNPCB authorized agency. In this 14.21 MT used oil generated during the shutdown activity (STG I – 10 years once activity) was disposed to authorized recycler.
3	Waste / Residues containing oil (Used	Hazardous	0.0	--

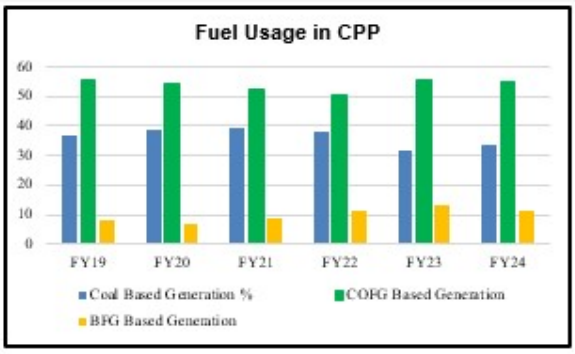
	Grease)			
4	Waste / Residues containing oil (Oil soaked cotton waste)	Hazardous	0.85	Sent to TNPCB authorized agency
5	Discarded containers / Barrels / Liners contaminated with hazardous waste / Chemicals	Hazardous	0.65	Sent to TNPCB authorized agency
6	Chemical Sludge from wastewater treatment	Hazardous	0	--
7	Chemical Sludge from wastewater treatment (ESEP)*	Hazardous	0	As per the CTO dated 08.04.2022 unit 3 Trade Effluent 5 KLD is also connected with Steel Plant Guard Pond for treatment and disposal. Hence, Elevated Solar Evaporation Pan has been removed.

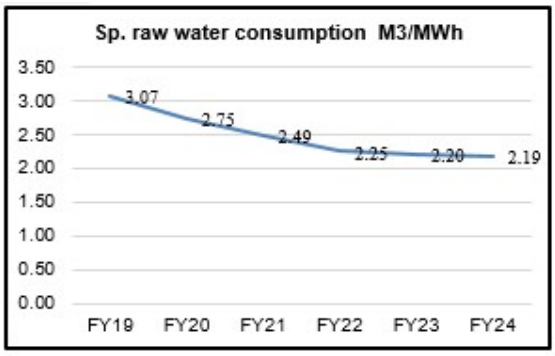
PART-G

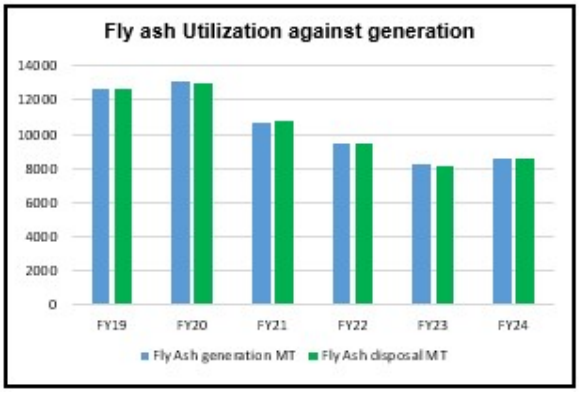
Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

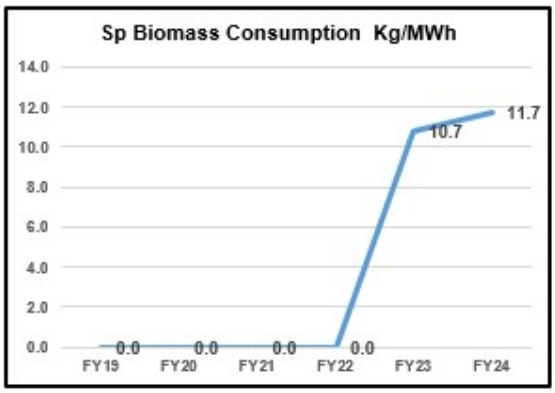
The implementation of ISO 14001 lead to cost savings through the reduction of waste, energy consumption, and other resources and enhanced its overall competitiveness. Pollution control measures adopted have several positive impacts on conservation of natural resources and cost savings. These measures often brought resource conservation & waste reduction, energy efficiency, water conservation and improvement in the air quality.

Sl. No.	Measures adopted	Impact on Conservation of natural resources
1	Minimize Coal consumption	Maximize power generation through Waste heat and usage of Biomass in coal based boiler. Resulted in reduction of CO_2 emission as well as minimize the natural resource depletion.
2	Water/Effluent	As a part of long term planning targets set and achieved for reduction of specific water consumption and it is a continual process. (Graph attached below). Out of 90 MW power generation 60 MW generation is installed with Water Cooled condenser and 30 MW is installed with Air Cooled Condenser.
3	Fly ash utilization	Since minimize the usage of coal consumption for power generation with low ash coal (8-10%) the entire fly ash generated from the coal based boiler is 100 % disposed to Fly ash brick manufactures.
4	Sustainable Practices	Use of sensible heat, BF gas as fuel in order to reduce fuel/energy consumption and intern reducing GHG emissions to achieve Annual targets. Rain water harvesting intermediate pit with the capacity of 100 KLD constructed to collect the run off during monsoon.









Environment KPIs Performance during FY 24

PART – H

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

- Captive Power Plant (CPP II) is located within the steel plant premises and CPP II also covered green belt for the area of 34%. In Fy24 greenery development inside the plant premises is about 9900 no. Outside the plant premises 2200 numbers. As on date the total area of green belt development is 91 hectares which is inside the plant and township premises.
- Under Green Tamil Nadu Mission, JSWSL Salem Works developed a Kurunkadugal over a extent of 6 Acres at Banapuram village, Mecheri, Mettur Taluk, Salem District. The Kurunkadugal was inaugurated by District Environmental Engineer of TNPCB on 07.11.2023. Total 1200 no. of native tree saplings have been planted with the single stretch land of 6 acres.
- Rain water harvesting capacity enhancement with this overall capacity is 146000 m^3.
- Rain water usage at CPP II for cooling water application
- Long Term Plan road map to minimize GHG emissions
- CCTV installation for monitoring fugitive emission within the premises.
- Rain water collection constructed at pit at CPP II coal yard.

Rainwater Collection pit at CPP II coal yard

World Environment Day Celebration June 2023

International Ozone day celebration September 2023

World Water Day Celebration March 2024

Kurunkadugal Development at Banapuram Village under Green Tamil Nadu Mission

PART – I

MISCELLANEOUS

Any other particulars in respect of Environmental protection and abatement of pollution.

- **Tree Plantation Details:**

During Fiscal Year 2024, our commitment to environmental sustainability was exemplified through an extensive tree plantation initiative at our plant. Our efforts in nurturing the environment and enhancing the green cover were driven by a deep sense of responsibility.

Throughout FY 24, we achieved an impressive milestone, with our total green belt area reaching an 91 Ha of the plant's total area. This substantial green belt coverage signifies our dedication to mitigating environmental impact and preserving biodiversity within our premises.

MANGO

GUAVA

NEEM

INDIAN ALMOND

COCONUT

JAMUN

One of the notable achievements of the fiscal year was the planting of 9,900 no. trees. This accomplishment underscores our relentless pursuit of fostering a greener and healthier ecosystem. These newly planted trees not only contribute to improving air quality but also enhance the overall aesthetics of our plant.

Our commitment to tree plantation is aligned with our broader sustainability goals, aiming to reduce our carbon footprint and contribute positively to the local environment. As we move forward, we remain resolute in our efforts to nurture and protect the environment, understanding that our actions today will shape a more sustainable tomorrow. Carbon Sequestration by greenery is being estimated every year and towards continual improvement it is targeted to plant trees in nearby locality also.

Corporate Social Responsibility:

JSW is committed to improving the quality of life of the community. Our focus has been on all round improvement of the community through our Corporate Social Responsibility (CSR) and Corporate Environment Responsibility (CER). Our company has a robust CSR policy with emphasis on areas like Livelihood Initiatives, Education, Health, Infrastructure and Environment. Our strong association with Stakeholders i.e. local leaders and partnership helps us to understand the community needs and widen our reach. The details are attached as ***Annexure I***

ANNEXURE 1

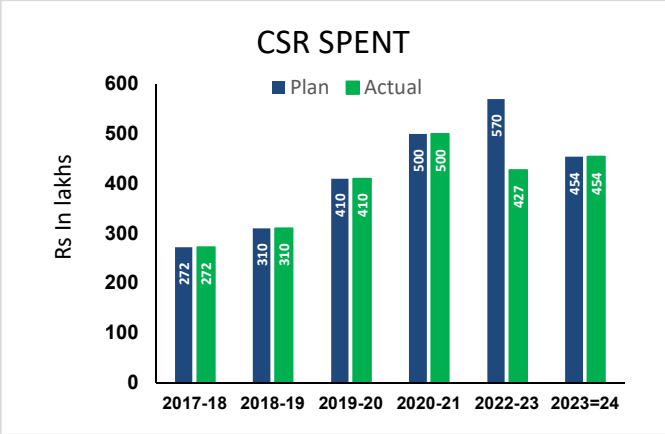
CSR DETAILS

CSR REPORT FOR THE PERIOD OF APRIL 2023 TO MARCH 2024

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 commitment towards CSR spending for the financial year 2023-24 is Rs. 4.54 Crores.

AGRI-LIVELIHOOD – JSWF inked MoU with TNAU

JSW – CSR in a significant move aligning with Schedule VII of the Companies Act, 2013. JSW Foundation has entered into a pioneering Memorandum of Understanding (MoU) with Tamil Nadu Agricultural University (TNAU) in Coimbatore. This collaboration signifies a shared commitment to uplift the farmer's livelihoods through an Integrated Farming System Project. Under this ground breaking pact, the focus is on empowering farmers in the region through various transformative initiatives. Farmer producer groups are being sensitized and equipped with knowledge in diverse agricultural interventions and allied practices tailored to local farming systems. Moreover, lead resource persons are being trained to act as catalysts for change and workshops, discussions and seminars are being conducted to facilitate knowledge exchange. Crucially, the partnership provides need-based technical support to farmers, ensuring that they receive assistance tailored to their unique challenges and requirements. Furthermore, the collaboration is committed to fostering innovation in the agriculture sector, introducing novel inventions and cutting-edge technologies that will revolutionize farming practices.

EDUCATION – Inaugurated Mettur ITI Civil Work

JSW – CSR handed over renovated bore well to the Government Mettur Industrial Training Institute (ITI). In this ITI 540 students are pursuing their professional courses, and those who are admitted in this institution are students who come from socio-economically backward conditions from the interior parts of Mettur region. In order to create good learning atmosphere to students, we have contributed in possible ways to develop the institution's infrastructure. This year we have renovated bore well and motor room to ensure sufficient and regular drinking water to the students. The worth of this intervention is Rs.412000/-

SANITATION - Inaugurated Sanitation Block at GOVT High School, Malligundam

JSW – CSR has supported to construct school sanitation blocks in nearby surrounding government schools in order to ensure hygienic practices among students in this school. Through this intervention 450 students are availing the benefits. The project value is Rs.1200000/-

SANITATION - INNAGURATED SANITATION BLOCK, PUTHUSAMPALLI

JSW – CSR has supported to construct school sanitation blocks in nearby surrounding government schools in order to ensure hygienic practices among students in this school. Through this intervention 450 students are availing the benefits. The project value is Rs.1400000/-

EDUCATION – Renovated Science Lab

JSW – CSR renovated the science lab at Kullamudayanoor Government Higher Secondary School. Though the school had science equipment there were no adequate laboratory space for the students to access and utilize the equipment. Through our intervention we have developed a good adequate space and atmosphere for the enhancement of scientific skillsets of the students in this school. The project value is Rs.900000/-

RURAL DEVELOPMENT- DRAINAGE CONSTRUCTION

JSW - CSR constructed drainage and graveyard compound wall at Pottaneri Panchayat for the benefit of community members. In this panchayat 2000 families are residing, and there is no sufficient and proper place for the community members to bury. Also there are no drainage facilities in main panchayat to access, especially during the rainy seasons. To avoid conditions of overflowing and stagnation of water, we have constructed drainage adjacent to the graveyard compound wall. Through this intervention nearly 2000 families are getting benefit and the project value is Rs.2600000/-

EDUCATION – JSW ASPIRE PROGRAM

In order to improve life skills among young generation. We have initiated life skill training program, through this initiatives targeted 1500 students from 7 government schools within radiation of 5 km. Through this initiative enhancing skills of children's life skills, carrier counsiling, problem solving & critical thinking. This initiative is not only targeted schools children but also educating their parents on importance of education and conducting activities to create awarness among parents. Also established Community Learning Center (CLC) at community level to reach children as well their parents.

Also encouraged children to participate National days such as National Girl child day, Children's Day, Ocean Day, Nutrition day and so on.

SPORTS – SILAMBAM ART

JSW – CSR initiated Silambam art activity in surrounding 5 government schools. We have trained 200 students on Silambam art, and also these students participated in World Record Event and showcased their potential in Silambam art.

Table 1 : CSR committed & spent details for the period April 2023 – March 2024 (FY24)

Sl.No.	Activitiy	Committed in lakhs(INR) for FY 24	Spent in lakhs(INR) till Sep 2023	Remarks
1	Climate resilient agri program	70.00	70.00	Completed
2	Support to JSW Shakti BPO	10.00	10.00	Completed
3	Water body rejuvenation	15.00	15.00	Completed
4	Community Development initiatives	25.00	25.00	Completed
5	Increasing Green Cover	30.00	30.00	Completed
6	JSW Aspire Project	44.00	44.00	Completed
7	JSW Udaan Scholarship	75.00	75.00	Completed
8	School Infrastructure Project	104.00	104.00	Completed
9	Health Outreach Activities	47.00	47.00	Completed
10	Rural infrastructure	25.00	25.00	Completed
11	Environment Education	3.67	3.67	Completed
12	Program Support-Sports	5.00	5.00	Completed
	Total	**453.67**	**453.67**	