

Ref: MPL/ FY 22/2109/035

Date: 24.09.2021

To,  
Member Secretary,  
Jharkhand State Pollution Control Board,  
T A Division Building, HEC, Dhurwa  
Ranchi (Jharkhand)

Dear Sir,

Subject: - Environmental Statement for the Financial Year Ending 31<sup>st</sup> March 2021.

We are enclosing herewith the "Environmental Statement" in Form - V for the financial year ending 31<sup>st</sup> March 2021 (FY: 20-21).

This is for your information and record please.

Thanking you,

Truly yours,

For Maithon Power Limited



S. H. Pandey  
(Chief O&M Services)

Enclosure: Environment Statement Form V (page no 1 to 5)

Cc: The Regional Officer  
Jharkhand State Pollution Control Board,  
Dhanbad (Jharkhand)

FORM – V

Environmental Statement for the Financial Year ending 31<sup>st</sup> March 2021

PART – A

- (i) Name and Address of the Owner/ occupier of the industry operation or process : Mr. Ramesh Jha  
Chief Executive Officer  
Maithon Power Ltd  
Village: Dambhui, P.O. Barbindia,  
Distt – Dhanbad (Jharkhand)
- (ii) Industry category - : Large
- (iii) Production capacity – : 2x525MW (Electric Thermal Power Plant)
- (iv) Year of establishment : 2011
- (v) Date of the last Environmental statement submitted : 19.09.2020

PART – B

Water and Raw Material Consumption

(1) Water consumption m<sup>3</sup>/day

Current year (2020-2021)

Process	:	41525.80
Cooling	:	--
Domestic	:	41.52

Name of products	Water consumption per unit of product output (M <sup>3</sup> /MWH)	
	During the previous financial year (2019-2020)	During the current financial year (2020-2021)
Electricity	2.32	2.37

(2) Raw material consumption

Name of raw materials	Name of products	Consumption of raw material per unit of output (MT/MU)	
		During the previous financial year (2019-2020)	During the current financial year (2020-2021)
Coal	Electricity	596.621	629.676
LDO	Electricity	0.104	0.098
HFO	Electricity	0.211	0.114

**PART – C**

**Pollution discharge to Environment / Unit of output**  
(Parameters as specified in consent issued)

Pollutants	Quantity of pollutants discharged (T/day)	Concentration of pollutants in discharges (mass/volume) mg/Nm <sup>3</sup>	Percentage of variation from prescribed standards with reasons
Water	Nil	Nil	Nil
Air (1) SPM (2) SO <sub>x</sub> (3) NO <sub>x</sub>	4.81 95.19 74.85	41.20 910.2 641.67	Within prescribed standard.  To comply with new norms of SO <sub>2</sub> and NO <sub>x</sub> , FGD installation is under progress.  We have been directed by CEA to install FGD to comply with SO <sub>2</sub> standard and to comply NO <sub>x</sub> emission limit by the year 2024.

**PART – D**

**Hazardous Wastes**

**(As specified under Hazardous Wastes/ Management and Handling Rules, 1989)**

Hazardous Waste	Total Quantity (kg)	
	During the previous financial year (2019-2020)	During the current financial year (2020-21)
From Process	Cat-5.2- 2.208 KL generated.	Cat-5.1- 18.63 KL (Disposed- 18.63. Category 5.2 – 2.208 KL of FY 21, disposal included in disposed quantity of Used Oil of this year.  Cat-5.2- Nil
From Pollution Control facilities.	Nil	Nil

**PART - E**

**Solid Waste**

Solid waste	Total Quantity (MT/Annum)	
	During the previous financial year (2019-20)	During the current financial year (2020-21)
A. From process	Nil	Nil

B. From Pollution Control facilities (Ash)	1578063.128	1648299.63
C. 1. Quantity recycled or reutilized within the unit	Nil	Nil
2. Sold	Nil	Nil
3. Recycled / Utilized (Ash)	<ul style="list-style-type: none"> <li>• Back filling in abandoned Mines: 1209848.59 MT</li> <li>• Cement Industry 250392.23 MT.</li> <li>• Brick Industry: 109411.7 MT</li> <li>• Low lying land filling: 27000 MT</li> <li>• Total: 1596653.2 MT</li> </ul>	<ul style="list-style-type: none"> <li>• Back filling in abandoned Mines: 1327504.9 MT</li> <li>• Back filling in UG Mines 37831.53 MT.</li> <li>• Cement Industry 634573 MT.</li> <li>• Brick Industry: 130199 MT</li> <li>• Low lying land filling: 57790.51 MT</li> <li>• Total: 2187899.69 MT</li> </ul>

#### PART – F

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

Hazardous waste: Cat- 5.1- 18.63 KL generated.

Solid Waste: Fly ash has been utilized by third party (Cement/ Brick manufacturer). Fly ash and bottom ash was utilized in back filling in abandoned mines allotted by ECL and in the underground mines of Tata Steel.

#### PART – G

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

- (1) Installation of ETP for the treatment of Industrial effluent.
- (2) Installation of STP for the treatment of Domestic effluent.
- (3) Installation of Ash water recovery system has been implemented.
- (4) Construction of pits in process area with pump for recycling of process waste water.
- (5) Implementation of Rain water harvesting system.
- (6) Construction of buffer pit with water recycling facility.

Total cost incurred for the installation of ETP & STP is approx Rs. 4.14 Crores.

Installed Industrial Reverse Osmosis plant with an expenditure of Rs. 84 crore (appx) for treatment and reuse of waste water.

The treated effluent is being recycled resulting into conservation of natural resource (fresh water).

## PART – H

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

- For the control of Air pollution ESP, one twin Flue stack of 275 meter height, bag filter & Dust suppression system has been installed with an expenditure of appx. Rs. 213 Crores.
- Online monitoring system has already been installed in stack to monitor SOX, NOx, CO and Particulate Matter since commissioning of the plant with an expenditure of appx. Rs. 1.602 crores
- We have installed CAAQMS (Continuous Ambient Air Quality Monitoring System) for online ambient air quality monitoring with an expenditure of appx, Rs 56.50 Lakh. One additional CAAQMS has been installed with an expenditure of Rs. 80 Lakh (approx.).
- For the control of Water pollution FTP & STP has been installed for the treatment of Industrial & Domestic effluent respectively with an expenditure of appx- Rs. 4.14 Crore. Also, ash water recovers: system with clarifier has been established
- To prevent flow of treated water outside the plant premises in case of any emergency, we have put-up sliding gate and built several check-dams in the drains. installed pump for recycling water with an expenditure of appx Rs, 3.34 lakh
- In addition to the above, water sprinkling is also being done through dedicated water tankers for the control of any type of fugitive dust arises from transportation.
- Rain water harvesting system has been implemented by adopting Roof top rain water harvesting system and by constructing Storage cum percolation pond with an expenditure of Rs. 63.47 Lakh (approx.).
- Green belt has been developed in an area of 95 Ha of land area in and around plant premises. The species which have been planted are — Minjuri, Neem, Sisam, Acacim Arjun, Mahuguni, Saal, Alstonia, Arjun, Pipal, Banyan, Karanj, Kaner, Gulmohar, Siris, and Jamun. New saplings plantation and green belt maintenance expenditure of approx. Rs. 200.07 lakh (FY 20-21).
- Third party Environment monitoring/samplings with an expenditure of Rs. 22 Lakh (approx.) (FY 20-21).
- Hydrogeology study of ash pond and abandoned mines area with an expenditure of Rs. 16.15 lakh (approx) from NIH, Roorkee.
- Biodegradable waste converter has been installed to treat biodegradable waste with an expenditure of Rs. 15.06 Lakh (approx).
- As a biodiversity conservation measure we have carried out an avifauna study in and around Maithon reservoir with an expenditure of Rs. 9.72 Lakh (approx.).
- Installed solar light pipe and turbo ventilator in store for harnessing natural solar light to lighten stores area with an expenditure of Rs. 10.4 Lakh (approx)
- Retrofitting of LED lights in BTG area and for street lights with an expenditure of Rs. 4.5 Lakhs
- Expenditure incurred for installing on line effluent quality monitoring system was Rs. 13.82 Lakh (approx).
- Geo enviro study of abandoned mines area and ash pond carried out by ISM Dhanbad with an expenditure of Rs 20.0 Lakh (approx.).
- Wind barrier in ash pond established with an expenditure of Rs, 26.7 Lakh (approx). Wind barrier established all along the coal yard with an expenditure of Rs.43 Lakh (approx).
- We have installed dust suppression system in ash pond with an expenditure of approx. Rs.41 Lakh.
- We have completed Ash pond bund strengthening with coal reject rubble stone soling with an expenditure of approx. Rs.36 Lakh.



## PART 1

Any other particulars for improving the quality of the environment.

- Green belt developed in and around the factory premises. Additional plantation is also being done.
- Good housekeeping is being maintained in and around the Power Plant.
- Pucca road inside the plant.
- For controlling fugitive dust in the plant, regular sprinkling of water is being carried out.
- Treated effluent is being recycled within the system.
- 5S implemented at site.
- Installed solar light pipes and turbo ventilator in stores to reduce power consumption.
- Mechanized road cleaning done in the plant premises.

