

o/c

MPL/FY20/20 07/ 027

Date: 29.07.2019

To.

Member Secretary,

Jharkhand State Pollution Control Board,

TA Division Building, HEC, Dhurwa

Ranchi (Jharkhand)

Dear Sir,

Subject: Environment statement in Form V for the financial year 2018-2019.

Please find enclosed the Environment statement report for the period April'18 to March'19 (FY'18-19) for M/s Maithon Power Limited.

This is for your kind information and record please.

Thanking you

Sincerely yours

For Maithon Power Limited

Subhash Chandra 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)

Received
Maithon
27/08/2019
Jharkhand State Pollution Control Board
Regional Office
Dhanbad

FORM - V**Environmental Statement for the Financial Year ending 31st March 2019****PART - A**

- (i) Name and Address of the Owner/ occupier of the industry operation or process : Mr. Ramesh Jha
Maithon Power Ltd
Vill: Dambhui, Po: Barbendia
Dist: -- Dhanbad
Pin: 828205 (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 : 28.09.2018

PART - B**Water and Raw Material Consumption**

- (1) Water consumption m³/day
Current year (2018-2019)

Process	:	45302.84
Domestic	:	45.32

Name of products	Water consumption per unit of product output (M ³ /MWH)	
	During the previous financial year (2017-2018)	During the current financial year (2018-2019)
Electricity	2.267	2.24

- (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 (2017-2018)	During the current financial year (2018-2019)
Coal	Electricity	572.494	590.33
LDO	Electricity	0.110	0.067
HFO	Electricity	0.279	0.269

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 ³	Percentage of variation from prescribed standards with reasons
Water	Nil	Nil	Nil
Air (1) PM (2) SO ₂ (3) NO _x	4.50 73.45 58.60	44.3 692.7 554.9	Within prescribed standard To comply with new norms of SO ₂ and NO _x , equipment shall be installed by 2022 as per CPCB letter dated 11 th Dec 2017.

PART - D

Hazardous Wastes

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

Hazardous Waste	Total Quantity (kg)	
	During the current financial year (2017-2018)	During the current financial year (2018-2019)
From Process	Cat-5.1- 6.37 KL Cat-5.2- 5.0 KL	Cat-5.1- 8.17 KL (6.37 Kl was of FY 17-18 and 1.8 Kl was of FY 18-19) Cat-5.2- 13.9265 KL (Qty of FY 17-18 disposed in June and Sept 18)
From Pollution Control facilities.	Nil	Nil

PART - E

Solid Waste

Solid waste	Total Quantity (MT/Annum)	
	During the previous financial year (2017-2018)	During the current financial year (2018-2019)
A. From process	Nil	Nil
B. From Pollution Control facilities (Ash)	1702686	1734375
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"> • Backfilling in abandoned mines: 1709007 MT. • Cement industry: 7615 MT • Brick industry: 53188 MT • Road through NHAI: 38590 MT • Total: 1808400 MT 	<ul style="list-style-type: none"> • Backfilling in abandoned mines: 1480878 MT. • Backfilling in UG mines 6786 MT • Cement industry: 173531 MT. • Brick industry: 99119 MT • Low lying land filling : 13484 MT • Total: 1773798 MT
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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.

- The hazardous waste Used oil/Waste oil (Cat-5.1- 8.17 KL and Cat-5.2- 13.9265 KL) generated at site was sent to authorised recycler for recycling.

Solid Waste: Fly ash was utilized by Cement/ Brick manufacturer. Fly ash and bottom ash was utilized in back filling of low lying areas allotted by ECL and 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) Constructed buffer pit with water recycling facility.

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

Installed Reverse Osmosis plant with an expenditure of Rs. 84 crore (approx.) for treatment and reuse of 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.
- On line 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 procured CAAQMS (Continuous Ambient Air Quality Monitoring System) for online ambient air quality monitoring with an expenditure of appx. Rs. 56.50 Lakh
- For the control of Water pollution ETP & STP has been installed for the treatment of Industrial & Domestic effluent respectively with an expenditure of appx. Rs. 4.14 Crores. Also, ash water recovery system with clarifier has been established.
- To prevent flow of treated water outside the plant premises in case of any emergency situation we have put-up sliding gate and built several check-dams in the drains, installed pumps for recycling water with an expenditure of appx. Rs. 3.34 Lakh.
- We have completed strengthening of ash dyke by benching with compacted soil and turfing the surfaces. 'BERM' drains and 'TOE' drains have been constructed along with water collection sump pits for pumping the water back to ash pond with an expenditure of appx. Rs. 97.62 Lakh.
- For the control of fugitive dust we have installed fixed type water sprinkling system in CHP (coal handling plant) area like rain guns. One additional mobile air borne dust suppression system [Nevis make] is also being operated to control the fugitive dust. Total cost incurred (approx.) Rs. 28.28 Lakh.
- In addition to the above water sprinkling is also being done through dedicated water tankers within plant premises.
- 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 – Neem, Sisam, Acacia, Arjun, Minjuri, Mahuguni, Saal, Alstonia, Arjun, Pipal, Banyan, Karanj, Kaner, Gulmohar, Siris, Jamun and bamboo. The total expenditure on green belt in FY 18-19 is approx. Rs.156.4 lakh.
- Manual ambient air quality monitoring equipment has been procured for facilitating in house ambient air quality monitoring with an expenditure of Rs. 7.46 Lakh (approx.)
- Environment monitoring carried out for ambient air, stack, noise, water, wastewater with an expenditure of Rs. 16.5 Lakh (approx.)
- 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).
- One additional CAAQMS has been installed with an expenditure of Rs. 80 Lakh (approx).
- We are in the process of installing dust suppression system in ash pond with an expenditure of approx. Rs. 41 Lakh.
- CAMERA installed as a compliance to ZLD system with an expenditure of Rs. 7.8 Lakh (approx)

PART – I

Any other particulars for improving the quality of the environment

- (i) Green belt developed in and around the factory premises. Additional plantation is also being done.
- (ii) Good Housekeeping is being maintained in and around the Power Plant.
- (iii) Pucca road inside the plant.
- (iv) For controlling fugitive dust in the plant, a new dust suppression system is being installed in ash pond..
- (v) Treated effluent is being recycled within the system.
- (vi) 5S system implemented at site.