



NTPC Limited
(A Government of India Enterprise)
Lara

Ref: Lara: EMG: Env't. Stmt. 24-25: 2025

September 24, 2025

To,
The Member Secretary,
Chhattisgarh Environment Conservation Board,
Paryavas Bhawan,
Atal Nagar Nava Raipur,
Chhattisgarh.

Subject: Environment Statement of NTPC Lara (2X800 MW) for the financial year 2024-25.

Dear Sir,

The Environment Statement of NTPC Lara (2X800 MW) for the financial year 2024-25 is being attached with the letter for your kind information please.

With warm Regards.

Sign of Authorized Signatory

(SUDHIR DAHIYA)
(AGM, NTPC Lara)

Copy To:

1. Regional Officer,
Chhattisgarh Environment Conservation Board,
Raigarh



NTPC Limited
(A Government of India Enterprise)

Lara

Environment Statement
For Lara Super Thermal Power Station
(NTPC Ltd)
Raigarh

(Year 2024 – 2025)

Period Ended 31.03.2025

By
Lara Super Thermal Power Station
(NTPC Ltd)
Raigarh (Chhattisgarh)



NTPC Limited
(A Government of India Enterprise)

Lara

Form-V
(See Rule-14)

Environment Statement for the Financial Year
Ending 31st March 2025

Part-A

i	Name and address of the occupier of the industry	Shri Anil Kumar, Executive Director, Lara STPS, NTPC Ltd Chhapora, Tehsil-Pussorre, Raigarh, Chhattisgarh PIN: 496440
ii	Industry category Primary -----(STC code) Secondary. -----(SIC Code)	Thermal Power Plant (Primary)
iii	Production capacity	2x800 MW Unit
iv	Year of establishment	Unit-I (800 MW): 01.10.2019 Unit-II (800 MW): 07.11.2020
v	Date of the last environmental statement submitted	19.09.2024

Part-B

Water and Raw Material Consumption

1. Water Consumption m³/Day:

Sr No	Type of Activity	Consumption (m³/Day) During Previous financial year 2023-24	Consumption (m³/Day) During current financial year 2024-25
1	Process (Boiler)	536 m3/Day	694.27 m3/Day
2	Cooling	73783 m3/Day	75013 m3/Day
3	Domestic	712.50 m3/Day	766.47 m3/Day
4	Ash Water	2450 m3/Day	3559.69 m3/Day

***Annual Consumption average per day**

Name of the Product	Process (Only Boiler) Water Consumption Per Unit of Product Output	
	During the Previous Financial Year 2023-2024 (Lit. /kWh)	During the Current Financial Year 2024-2025 (Lit. /kWh)
Electricity	0.017 Liter /kWh	0.02 Liter/kWh

* Annual specific Water consumption in the financial year 2023-24 & 2024-25 was 2.478 m³/MWh & 2.41 m³/MWh respectively.

2. Raw Material Consumption

S No	Name of the Raw Material	Name of the Product	Consumption of Raw Material per unit output	
			During the Previous Financial Year 2023-2024	During the Current Financial Year 2024-2025
1	Coal	Electricity	0.72 kg/kWh	0.66 kg/kWh
2	Fuel Oil	Electricity	0.65 ml/kWh	0.26 ml/kWh

Part-C

Pollution Discharge to Environment /Unit of Output
(Parameter as Specified in the Consent Issue)

Pollutants	Quantity of Pollutants Discharged (Mass /day)	Concentrations of Pollutants Discharged/ Recycled (Mass/Volume)	Percentage of Variation from Prescribed Standard with Reasons
(a) Water			
pH	---	7.5	
TSS	ZERO	33.79 mg/lit	-66.21%
BOD	ZERO	5.08 mg/lit	-83.07%
COD	ZERO	15.08 mg/lit	-93.97%
O&G	ZERO	2.50 mg/lit	-75.00%
(b) Air: UNIT#1			
SPM	551.15 MT/Year (0.095 gm/kWh)	23.58 mg/Nm ³	-21.40%
SO ₂	21138.13 MT/Year	904.35 mg/Nm ³	*

	(3.651 gm/kWh)		
NOx	7529.41 MT/Year (1.30 gm/kWh)	322.13 mg/Nm ³	*
(c) Air: UNIT#2			
SPM	686.54 MT/Year (0.100 gm/kWh)	25.08 mg/Nm ³	-16.40%
SO ₂	25230.90 MT/Year (3.678 gm/kWh)	921.71 mg/Nm ³	*
NOx	9966.329 MT/Year (1.453 gm/kWh)	364.08 mg/Nm ³	*

* NTPC Lara is under 'Category-C' as per the MoEF&CC Notification vide, dated. 31.03.2021 and its amendment thereof; further SO₂ emission limit from Thermal Power Plant (TPPs) under Category-C is exempted as per MoEF&CC notification vide, dated. 11.07.2025. For NO_x limit, The matter is under sub judice at Hon'ble Supreme Court of India. As per the direction of Hon'ble Supreme Court, a committee comprising of EPCA (CAQM), CPCB, MoEF&CC and MoP is deliberating on the issue.

NTPC Lara has awarded contract for installation of FGD to M/s L&T on 31.07.2018 for controlling SO₂ concentration in flue gas in compliance to the latest MOEF&CC emission norms dated 07.12.2015 for TPP. The installation of FGD is in progress and shall be completed within the timeline.

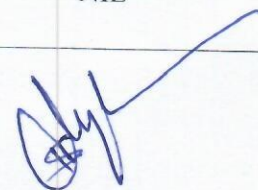
Part-D **Hazardous Waste**

(As Specified Under Hazardous Waste (Management, Handling and Transboundary Movement Rules, 2016)

Authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 was granted by CECB, Raipur vide letter No.: 1433/HSMD/HO/CECB/2020 Raipur, dated 08.06.2020 valid upto: 03.06.2025. (Number of authorization 434 HO/HSMD/CECB/RAIPUR). Amendment was granted in the above existing authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 by letter number 7363 /HSMD/HO/CECB/2022 Raipur, Dated 18/01/2022 valid upto: 03.06.2025 (Number of authorization 434/HO/HSMD/CECB/NAVA RAIPUR ATAL NAGAR, RAIPUR).

The Authorization is granted for the following wastes and quantity generated during year 2024-25 is as below: -

Sr. No.	Type of hazardous waste with category	Permitted Quantity of Hazardous Waste	Actual Quantity Generated in 2024-25
1	Used or Spent oil (Schedule-I, Cat. No. 5.1)	100 T/Annum	20.210 T
2	Waste or residue containing oil (Schedule-I, Cat. No. 5.2)	10 T/Annum	NIL

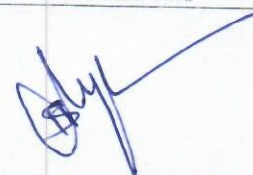


3	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes (Schedule-I, Cat. No. 33.1)	10,000 T/Annum	42.02 T (5934 Nos.)
4	Spent Ion exchange resin containing toxic metals (Schedule-I, Cat. No.35.2)	2 T/Annum	NIL
5	Asbestos (Schedule - II, Class - B)	0.1 T/Annum	NIL

Part-E

Solid Waste

Sr. No.	Solid Waste	Total Quantity (MT)	
		During the previous Financial Year 2023-24	During the current Financial Year 2024-25
(a)	From Process Mill Reject	17,150 MT	16,656 MT
(b)	From Pollution Control Facility: Ash	32,83,211 MT	31,22,762.66 MT
(c) (i)	Quantity recycled or re-utilized within the unit (Ash)	Nil (Ash Dyke Raising / Buttressing)	Nil (Ash Dyke Raising / Buttressing)
		2520 MT (NTPC Brick Mfg.)	4847.96 MT (NTPC Brick Mfg.)
		6285 MT (Outside Brick Mfg.)	4960.84 MT (Outside Brick Mfg.)
(ii)	Land Filling	4,94,721 MT	1,99,878.17 MT
(iii)	Agriculture (Research)	Nil	Nil
(iv)	Ceno spheres	1529 MT	846.7 MT
(v)	Clay brick kiln	Nil	Nil
(vi)	UG Mines filling	Nil	Nil
(vii)	OC Mines filling	Nil	1,03,965.58 MT
(viii)	Roads/ Rail Embankment	27,79,685 MT	31,21,750.41 MT
(ix)	CLSM	Nil	Nil
(x)	Ash Concrete	Nil	Nil
(xi)	Bottom Ash Cover	Nil	Nil
(xii)	Cement industries	Nil	Nil
(xiii)	Sold Mill Reject	Nil	Nil
(xiv)	Disposed Ash	Nil	Nil
(xv)	Disposed Mill reject	17150 MT	Nil
(xvi)	Mill Reject Stored	Nil	16656 MT



Part-F

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

Hazardous waste generation & Method of disposal data (During Financial Year 2024-25):

Sr. No.	Type of hazardous waste with category	Actual Quantity Generated in 2024-25	Remarks
1	Used or Spent oil (Schedule-I, Cat. No. 5.1)	20.210 T	Sent to Authorized Recycler
2	Waste or residue containing oil (Schedule-I, Cat. No. 5.2)	NIL	
3	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes (Schedule-I, Cat. No. 33.1)	42.02 T (5934 Nos.)	Sent to Authorized Recycler
4	Spent Ion exchange resin containing toxic metals (Schedule-I, Cat. No.35.2)	NIL	
5	Asbestos (Schedule - II, Class - B)	NIL	

The proposed method for disposal of items from Sr. No. 1 to 3 is through authorized recyclers and for item number 4 to 5 is through co-processing in cement plant or disposal into CTSDF.

The solid waste generated is Ash, which is majorly used for (i) Road construction, (ii) Private Ash Brick Plants (iii) Low lying area filling. Balance quantity of ash is stored presently in Ash Dykes.

Ash Generated at NTPC Lara have following chemical composition: -

CHEMICAL ANALYSIS OF ASH (in %)												
S. N	COAL SOURCE	Na ₂ O	MgO	Al ₂ O ₃	SiO ₂	P ₂ O ₅	SO ₃	K ₂ O	CaO	TiO ₂	MnO	Fe ₂ O ₃
1	BOTTOM ASH	0.133	0.63	24.78	61.83	0.07	0.08	1.55	0.47	1.92	0.037	7.39
2	FLY ASH	0.096	0.71	26.87	59.22	0.16	0.09	1.42	0.58	1.96	0.032	7.15



Part-G


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

Pollution control measures adopted have resulted in economization in consumption of natural resources and general improvement in the quality of environment has been achieved in and around the plant. In turn the cost of production increases in general but improves the quality of environment in the way of better health of neighborhood people and employees, which are incomparable.

Part-H

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

Sr. No	Description of Item	Investment Cost (Rs in crores)
1.	FGD	512
2.	ZLD	9.08
3.	Electrostatic Precipitators	205.58
4.	Stacks	70.25
5.	Cooling Towers incl. Civil Works	129.41
6.	Ash Handling including AWRS Mechanical Work	139.33
7.	AWRS Building Works	1.29
8.	Ash pond dyke	74
9.	Water Treatment Plant (Effluent Treatment Plant, DM Plant, DM Plant Waste Treatment System)	57.04
10.	Dust Extraction & Suppression System	2.27
11.	Sewage Collection, Treatment & Disposal (STP)	3.50
12.	Green Belt & Afforestation	8.27
13.	Hariyar Chhattisgarh Scheme for Tree Plantation	9.29
14.	Compensatory Afforestation	3.91
15.	NPV for forest land diversion	9.50
16.	Deepening, re-excavation and renovation of nearly 15 ponds in nearby villages for water conservation	1.59
17.	Roof top solar power panels in main plant area of capacity 1.1648 MW	4.34
18.	Ash Utilization expenses in 2024-25	401.08
19.	Installation of Ash brick Plant	1.60
Total		1643.33





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Part-I

Any other particulars for improving the quality of the environment.

- a) NTPC Lara has awarded contract for installation of FGD to M/s L&T on 31.07.2018 for controlling SOx concentration in flue gas in compliance to the latest MOEF&CC emission norms dated 07.12.2015 for TPP. FGD in Unit-1 of Stage-I has already been commissioned & FGD of Unit-2, Stage-I has also been commissioned.
- b) NTPC Lara has started making carry bags from used ash handling system bag filters as an initiative for waste management. Till now, NTPC Lara has made more than 5,400 carry bags.
- c) NTPC Lara has completed 12,000 Nos Tree Sapling plantation by MIYAWAKI Method through Chhattisgarh Rajya Van Vikas Nigam Limited.
- d) NTPC Lara has completed 20,000 Nos Tree Sapling plantation in Pusalda & Kensera Village, District Raigarh, Chhattisgarh through Chhattisgarh Rajya Van Vikas Nigam Limited.
- e) NTPC Lara has also completed 30,000 Nos Tree sapling plantation in the village of Ghughwa, Semibhawar, Jhilgitar & Basanpali school in the month of July 2024 by Chhattisgarh Rajya Van Vikas Nigam Limited.
- f) Non-Biodegradable plastic waste being sent to Co-processor M/s Ambuja Cement Limited, Bhatapara, Chhattisgarh.