एनटीपीसी लिमिटेड
(भारत सरकार का उद्यम)
NTPC Limited
(A Govt. of India Enterprise)
तलाईपाली / Talaipalli

Ref: 1071/TLCMP/Mining/F-4/2021/178 Dated: 10.09.2021

To,
The Member Secretary,
Chhattisgarh Environment Conservation Board,
Paryavas Bhavan,
Naya Raipur Atal Nagar,
Chhattisgarh-492001

Sub: Environment Statement (Form V) for the year 2020-21 of NTPC Ltd., Talaipalli Coal Mine Project.

Ref:
1: EC Ltr No. J-11015/279/2009-IA. II(M) Dated 02.01.2013.
2: Revalidation of EC Vide Ltr No J-11015/279/2009-IA-II(M) Dated 28.10.2015
3: Amendment in EC Ltr No. J-11015/279/2009-IA. II(M) Dated 06.11.2019.

Dear Sir,
With reference to the above, Ministry of Environment, Forest and Climate Change (MoEF&CC) granted the Environmental clearance to TLCMP, NTPC Ltd. As per Condition No. (Xviii), EC Ltr No. J-11015/279/2009-IA. II(M) Dated 02.01.2013, please find the Environment Statement (Form V) for the year 2020-21 of NTPC Ltd., Talaipalli Coal Mine Project.

10/9/21

A. Prathap
AGM (Mining),
TLCMP, NTPC Ltd,
Gharghoda, Raigarh.

CC:
1. Regional Officer, Chhattisgarh Environment Conservation Board, T.V. Tower Road, Raigarh, Chhattisgarh. PIN 496001.
2. The Director, Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building Civil Lines, Nagpur-440001
   Email: apccfcentral-ngp-mef@gov.in

[FORM-V]
(See Rule 14, E(P) Rules 1986)
Environment Statement for the financial year 2020-2021ending 31st March 2021

PART-A

(1) Name and address of the mine

Name: - Talaipalli Coal Mining Project, NTPC Limited
Address: - Talaipalli
Post: - Gharghora,
Dist.: - Raigarh (Chhattisgarh) -

(2) **Industry category** - Primary (Coal Mining)

(3)**Production capacity** - 18.0 MTPA (Peak Production)

(4)**Year of establishment** - Mines Operation started in Oct,2019

(5) **Date of the last Environmental Statement Submitted** - 5th October, 2020

PART-B

Water and Raw material Consumption:

(1) Water Consumption (m^3/day)

		During Previous financial year (2019-2020)	During current financial year (2020-2021)
	A. MINING		
i	Dust suppression	13	15
ii	Fire fighting		
iii	Others (workshop etc.)	2	2
	B. COOLING		
	C. DOMESTIC		
i	Cleaning, Drinking	5	7
	TOTAL	20	24

A. Process water consumption per unit of output

Name of product	Water consumption per unit of product					
	During Previous financial year (2019-2020)			During current financial year (2020-2021)		
ROM Coal	Production (T/day)	Water (Ltrs/day)	(Ltrs/Tn)	Production (T/day)	Water (Ltrs/day)	(Ltrs/Tn)
	1120	20000	17.85	2224	24000	10.79

(ii) Raw material consumption

Name of raw material	Name of products	Consumption of raw material (per unit of output)	
		During Previous financial year (2019-2020)	During current financial year (2020-2021)
1. Explosive	Coal and OB	2.33 Kg/Te	1.93 Kg/Te
2. Booster		0.005 Kg/Te	0.0055 Kg/Te
3. HSD		4.5 Lt/Te	2.11 Lt/Te

PART-C

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

A) Water:

The analysis results reveal that all the parameters are below permissible limits prescribed by MOEF as General Standards (Effluent discharged into in land surface water.)

(Parameter as specified in the consent issued)			
Pollutants	Quantity of Pollutants Discharged (Mass / day)	Conc. of Pollutants Discharged (Mass/ Volume)	% of variation from prescribed standard with reasons
Mines Surface runoff water Quality Report (JAN,2021)			
pH	NA	7.24	Within the Range
T.S.S	NIL	39mg/ lit	Within the Range
Oil & Grease	NIL	<4.0	Within the Range
BOD	NIL	17	Within the Range
COD	NIL	38.9	Within the Range

B) Air:

Ambient air quality result shows that the values of RPM, SPM, SO_2 and NOx are well within prescribed standards.

Ambient Air Quality Monitoring (JANUARY 2021)												
Station Name	Village	Location		First Fortnight								
				PM_{10}	$PM_{2.5}$	SO_2	NO_2	Hg	As	Ni	Cd	Cr
			Limit⇒	100.0 µg/m³	60.0 µg/m³	80.0 µg/m³	80.0 µg/m³	Not Specified	6.0 ng/m³	20.0 ng/m³	Not Specified	Not Specified
			Result⇓									
AAQ1	Chhottiguda	North West side from the Center of the Coal Block (Core Zone)		92.7	49.2	12.5	37.6	ND (< 0.1)	ND (< 5.0)	ND (< 15.0)	ND (< 1.0)	ND (< 1.0)
AAQ2	NTPC Office, Raikera	South West side from the Center of the Coal Block (Core Zone)		89.6	45.7	13.5	32.7	ND (< 0.1)	ND (< 5.0)	ND (< 15.0)	ND (< 1.0)	ND (< 1.0)
AAQ3	Kudurmoha	North Eastern side from the Center of the Coal Block		89.6	48.5	12.8	35.7	ND (< 0.1)	ND (< 5.0)	ND (< 15.0)	ND (< 1.0)	ND (< 1.0)
AAQ4	Naya Rampur	South East side from the Center of the Coal Block (Core Zone)		89.7	56.2	13.4	34.8	ND (< 0.1)	ND (< 5.0)	ND (< 15.0)	ND (< 1.0)	ND (< 1.0)
AAQ5	Kotrimal	Western side of the Coal Block (Buffer Zone)		90.5	42.8	14.3	31.5	ND (< 0.1)	ND (< 5.0)	ND (< 15.0)	ND (< 1.0)	ND (< 1.0)
AAQ6	Chimtapani	Northern side of the Coal Block (Buffer Zone)		82.5	56.4	14.2	37.7	ND (< 0.1)	ND (< 5.0)	ND (< 15.0)	ND (< 1.0)	ND (< 1.0)
AAQ7	Pelma	Eastern side of the Coal Block (Buffer Zone)		82.2	57.2	14.8	38.4	ND (< 0.1)	ND (< 5.0)	ND (< 15.0)	ND (< 1.0)	ND (< 1.0)
AAQ8	Raikera	South Side of the Coal Block		87.5	55.2	13.8	34.8	ND (< 0.1)	ND (< 5.0)	ND (< 15.0)	ND (< 1.0)	ND (< 1.0)

Copy of the sample Analysis report by M/s EKO PRO Ltd. is enclosed as Annexure-1

PART – D

Hazardous Wastes

(As specified under Hazardous Waste/ Management and Handling Rules, 1986)

Sl no	Hazardous waste	Total quantity	
		During Previous financial year (2019-2020)	During current financial year (2020-2021)
(a)	From process	Nil	Nil
(b)	From pollution control facility	Nil	Nil
(c)	Used oil	Nil	Nil

PATRT-E

Solid Waste

Sl no	Solid Waste	Total quantity	
		During Previous financial year (2019-2020)	During current financial year (2020-2021)
(a)	From process: (Overburden and Interca-lated	2335857 (CuM)	3708757 (CuM)
(b)	From pollution control facility	Nil	Nil
(c)	(1) Quantity recycled or re-utilized within the unit (2) Sold (3) Disposed	Nil Nil Kept within ML area	Nil Nil Kept within ML area

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.

- Mining is in initial phase, so no such hazardous wastes are produced in the mine premises. Used oil such as mobile/lubricants are used for the lubricating the HEMM/haulage etc.
- The generation of OB & Intercalated waste is dumped in earmarked area as per approved mining plan & scheme with following mitigate measures such as proper sloping, terracing, and toe retention wall & garland drainage.

PART-G

Impact of the pollution abatement measures taken on conservation of natural re-sources and on the cost of the production

- The massive plantation has been done at mines boundary, viewpoint, topsoil dump and local villages.
- The topsoil is stored in a proper manner and the same has been utilized by stowing grass seeds.
- Garland drainage, Hume pipes and check dam are provided to mines dump and soil erosion areas.
- Check dams & check wears are provided at the mines discharge areas.
- 11 Nos. of Water recharge structures constructed at Naya Rampur pond.
- 3 Digital Flowmeters installed to measure the quantity of water utilized for various mining and domestic purpose

PART-H

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

- Water sprinkling through mobile water tankers for mines dispatch road, haul road dust suppression.
- 11 Recharge Pond structures has been implemented at Naya Rampur ponds to increase the water table.
- Dust extraction and wetting process are being used for drilling process
- Plantation in Site office areas, mine boundary, Nearby Villages, viewpoint areas and dump areas
- Grass seeds stowing over Topsoil dumps for better stabilization and soil fertility conservation.
- Check-dam near Naya Rampur nallah for silt control in surface run-off from mines area.
- 2 piezometers have been installed to give online continuous data of ground water level.

PART-I

Any other particulars for improving the quality of the environment

1) Regular awareness program is given to the company employees, local villagers and school children towards environment and pollution.
2) The world environmental day, forest day & safety day has being celebrated regularly along with school children's &company employee's, the celebration was followed through environ- mental awareness program

PHOTOS:

Garland drains

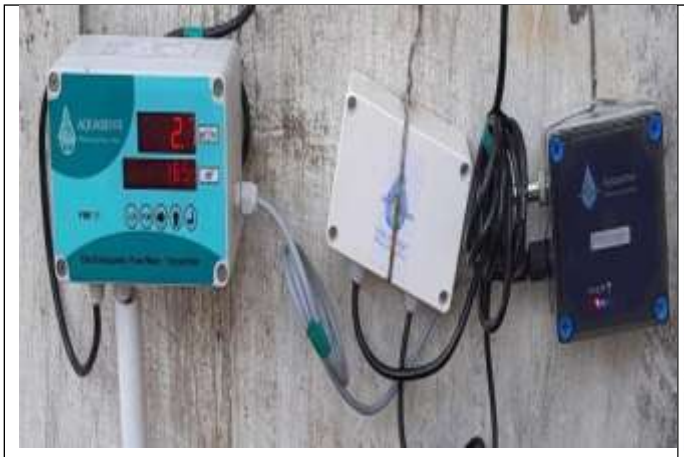
Ground Water harvesting structures

Plantation Along mine boundry

AAQ monitoring station at Raikera site office

Seed sowing at Top soil Dump

Tree Plantation along Mine boundry

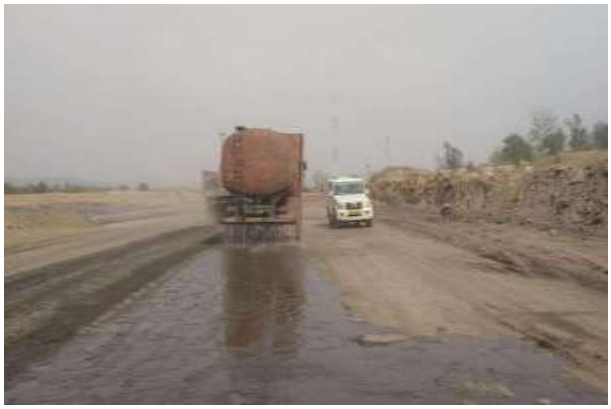


Digital Flowmeter

Installation of Piezometers

World Environment Day Celebration – 2020

Noise monitoring



Dust suppression on Haul roads

Ambient Air Quality Monitori

Contact : +91 - 9810243870

EKO PRO ENGINEERS PVT. LTD.

Environmental Consultants and Analytical Laboratory
(An ISO 9001:2015 Certified Company)

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Contact No.: 9818405427, 9810240678, 8826344487 E-mail : email@ekopro.in, ekoproengineers@gmail.com, website : www.ekopro.in

TEST REPORT

Effluent Sample Analysis

Test Report No. : EKO/235/150121 **Issue Date : 20/01/2021**

Issued To : NTPC LIMITED
(A Government of India Enterprise)
SSC - Coal Mining (Ranchi)
Lailunga Road, Gharghoda
Raigarh, Chhattisgarh-496111, India

Sample Description	:	Effluent Water Sample (IEW-1)
Sample Drawn on	:	12/01/2021
Sample Drawn by	:	EPEPL (Mr. Saurabh Rao)
Sample Received on	:	15/01/2021
Sampling Location	:	Mine Discharge Water-at Naya Rampur Village (D/s Core Zone)
Sampling Plan & Procedure	:	SOP-W/66
Sample Quantity	:	2.0 Litre
Environmental Condition	:	Normal
Analysis Duration	:	15/01/2021 To 19/01/2021
Remark (if any)	:	NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB (EPR-1986 Schedule-VI Part-A)
1	pH	IS: 3025 (P-11)	7.24	-	5.5-9.0
2	Total Dissolved Solids	IS: 3025 (P-16)	627.0	mg/L	-
3	Total Suspended Solids	IS: 3025 (P-17)	39.0	mg/L	100.0
4	Oil & Grease	IS: 3025 (P-39)	<4.0	mg/L	10.0
5	COD (as O_2)	IS: 3025 (P-58)	38.9	mg/L	250.0
6	BOD (@27°C for 3 days)	IS: 3025 (P-44)	17.0	mg/L	30.0
7	Iron (as Fe)	EKO/CHEM/SOP-ICPMS/W-01	<0.005	mg/L	3.0
8	Manganese (as Mn)	EKO/CHEM/SOP-ICPMS/W-01	<0.005	mg/L	2.0
9	Chloride (as Cl)	IS: 3025 (P-32)	210.5	mg/L	-

Notes :

1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test report will not be used for any publicity/legal purpose.
4. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
5. Responsibility of the Laboratory is limited to the invoiced amount only.

****End of Report****

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

Contact : +91 - 9810243870

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Environmental Consultants and Analytical Laboratory

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Contact No.: 9818405427, 9810240678, 8826344457 E-mail : email@ekopro.in, ekoproengineers@gmail.com, website : www.ekopro.in

TEST REPORT

Ambient Air Quality Monitoring

Test Report No. : EKO/202/300121 **Issue Date : 04/02/2021**

Issued To : NTPC LIMITED
(A Government of India Enterprise)
SSC - Coal Mining (Ranchi)
Lailunga Road, Gharghoda
Raigarh, Chhattisgarh-496111, India

Sample Description	:	Ambient Air (A : 3)
Sample Drawn on	:	25/01/2021 To 26/01/2021
Sample Drawn by	:	EPEPL (Mr. Saurabh Rao)
Sample Received on	:	30/01/2021
Sampling Location	:	Village Kudurmoha, North Eastern Side from the center of the coal block (Core Zone)
Sampling Time	:	24.0 Hrs.
Sampling Plan & Procedure	:	SOP-AAQ/15
Analysis Duration	:	30/01/2021 To 03/02/2021
Ambient Temperature (°C)	:	17.0
Average Flow Rate of SPM (m^3/min.)	:	1.1
Average Flow Rate of Gases (lpm)	:	1.0
Weather Conditions	:	Clear
Remark (if any)	:	NA

RESULTS

S.No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS:5182(P-23)	85.6	µg/m^3	100.0
2	Particulate Matter (PM2.5)	EKO/CHEM/SOP/AAQ-01	48.4	µg/m^3	60.0
3	Sulphur Dioxide (as SO_2)	IS:5182(P-2)	14.7	µg/m^3	80.0
4	Nitrogen Dioxide (as NO_2)	IS:5182(P-6)	28.3	µg/m^3	80.0

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test report will not be used for any publicity/legal purpose.
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**** End of Report ****

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PURNIMA CHAUHAN
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