



Government of India
Ministry of Environment, Forest and Climate Change
IA Division
(Thermal Projects)



Minutes of 47TH MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL POWER PROJECTS) Expert Appraisal Committee meeting Thermal Projects held from 26/09/2023 to 26/09/2023 **Date: 18/10/2023**

MoM ID: EC/MOM/EAC/271330/9/2023

Agenda ID: EC/AGENDA/EAC/271330/9/2023

Meeting Venue: N/A

Meeting Mode: Virtual

Date & Time:

26/09/2023	10:30 AM	05:30 PM
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1. Opening remarks

The 47th Meeting of the re-constituted EAC (Thermal Power) organized by the Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Aliganj, Jor Bagh Road, New Delhi was held on 27th September, 2023 through video conference under the Chairmanship of Shri Gururaj P. Kundargi.

2. Confirmation of the minutes of previous meeting

The Minutes of the 46th EAC (Thermal Power) meeting held on 4th September, 2023 were confirmed in the meeting.

3. Details of proposals considered by the committee

#{other_proposal}

5. List of Attendees

Sr. No.	Name	Designation	Email ID	Remarks
1	Shri Gururaj P Kundargi	Chairman, EAC	gpkundargi@gmail.com	
2	Shri Suramya Dolarray Vora	Member (EAC)	suramya.vora@gmail.com	
3	Dr Narmada Prasad Shukla	Member (EAC)	shuklanp55@gmail.com	Absent
4	Dr Santoshkumar Hampannavar	Member (EAC)	santoshkumar777@yahoo.com	
5	Dr Umesh Jagannathrao Kahalekar	Member (EAC)	ukahalekar@rediffmail.com	
6	Shri K B Biswas	Member (EAC)	biswaskiriti@gmail.com	

7	Dr Nandini N	Member (EAC)	sai.nandinin@gmail.com	
8	Dr Unmesh Patnaik	Member (EAC)	unmesh.patnaik@tiss.edu	Absent
9	Dr Nazimuddin	Member (EAC)	nazim.cpcb@nic.in	Absent
10	Shri Mahi Pal Singh	Member (EAC)	mpsingh.cea@nic.in	
11	Dr R K Giri	Member (EAC)	rk.giriccs@gmail.com	Absent
12	Professor Sheo Shanker Rai	Member (EAC)	sheoshankar@iitism.ac.in	
13	Yogendra Pal Singh	Scientist E	yogendra78@nic.in	



MINUTES OF THE 47TH MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) ON ENVIRONMENTAL IMPACT ASSESSMENT (EIA) OF THERMAL POWER PROJECTS HELD ON 26TH SEPTEMBER, 2023

The 47th Meeting of the re-constituted EAC (Thermal Power) organized by the Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Aliganj, Jor Bagh Road, New Delhi was held on 27th September, 2023 through video conference under the Chairmanship of Shri Gururaj P. Kundargi. The list of Members participated in the meeting is at **Annexure**.

Agenda Item No.47.1: Confirmation of the Minutes of the 46th EAC meeting

The Minutes of the 46th EAC (Thermal Power) meeting held on 4th September, 2023 were confirmed in the meeting.

Agenda Item No.47.2

2x600 MW Coal Based Thermal Power Plant at villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir-Champa), Chhattisgarh by M/s Athena Chhattisgarh Power Limited – Environmental Clearance (EC) – reg.

[Proposal No. IA/CG/THE/441418/2023; F. No. J-13012/07/2009-IA.II(T)]

47.2.1 The proposal is for grant of Environmental Clearance to the project 2x600 MW Coal Based Thermal Power Plant at villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir-Champa), Chhattisgarh by M/s Athena Chhattisgarh Power Limited.

47.2.2 The Project Proponent and the accredited Consultant M/s J. M. Environet Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

- i. M/s. Athena Chhattisgarh Power Limited (ACPL) is a fully owned entity of M/s. Vedanta Limited.
- ii. Earlier, M/s. Athena Chhattisgarh Power Limited (ACPL) proposed a 2x600 MW Coal Based Thermal Power Plant at villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir Champa), Chhattisgarh; for which, Environment Clearance (EC) was granted by MoEF&CC to M/s. Athena Chhattisgarh Power Ltd. vide letter no. J-13011/7/2009-IA.II(T) dated 04.06.2010.
- iii. Further amendment in EC was granted by MoEF&CC for temporary permission for road transportation of coal for a maximum period of three years and Revision of total project area from 930 acres to 995.235 acres i.e., an additional project area of 65.235 acres along with extension of validity till 03.06.2017 to start production/operation vide letter no. J-13012/07/2009-IA.II(T) dated 22.03.2016. In 2017, again extension of validity was granted for further period of three years till 03.06.2020 vide letter no. J-13012/07/2009-IA.II(T) dated 28.11.2017. The Consent to Establish (CTE) was also obtained from CECB vide letter no. 2536/TS/CECB/2010 dated 02.08.2010, and the construction of the plant was initiated.
- iv. The construction activities were carried out till 2016 and by then more than 60 % construction was completed at the project site. However, due to poor financial condition of

the company, the proposal to liquidate the asset was filed by State Bank of India in 2018 & the corporate insolvency resolution process (“CIRP”) was initiated against ACPL before the National Company Law Tribunal, Hyderabad. During liquidation proceedings, Vedanta Limited emerged as the successful bidder & acquired Athena Chhattisgarh Power Limited (Company or Corporate Debtor) and a Sale Certificate dated 21st July, 2022 was issued by the Liquidator.

- v. The MoEF&CC has granted Terms of Reference vide letter dated 10.05.2023 to the 2x600 MW Coal Based Thermal Power Plant at villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir-Champa), Chhattisgarh by M/s Athena Chhattisgarh Power Limited, without Public hearing under para 7(ii) of the EIA Notification 2006 as amended as project activity has been 60% completed.
- vi. Salient features of the project are as follows:

1. EAC Meeting Details:

EAC Meeting/s	EC/AGENDA/EAC/271330/9/2023 47 th Meeting of The Re-Constituted Expert Appraisal Committee (EAC) (Thermal Power Projects)
Date of Meeting/s	26/09/2023
Date of earlier EAC meetings	31.03.2023 (For ToR)

2. Project Details

Name of the Proposal	Athena Chhattisgarh Power Ltd. (2x600 MW) Coal Based Thermal Power Plant at villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir Champa), Chhattisgarh.
Proposal No.	IA/CG/THE/441418/2023 Single Window no.: SW/118192/2023
Location	Villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir Champa), Chhattisgarh
Company's Name	M/s. Athena Chhattisgarh Power Limited (ACPL)
Accredited Consultant and certificate no.	Consultant: J.M. Environet Pvt. Ltd Certificate No: NABET/EIA/2023/SA 0172
Inter- state issue involved	No
Seismic zone	The project falls in Seismic Zone - II as per IS: 1893 (Part-I): 2002, which is very low risk zone

3. Category Details:

Category of the project	A
Capacity	1200 MW

Attracts the General Conditions (Yes/No)	No
Additional information (if any)	-

4. Project Details

If expansion, the details of ECs (including amendments and extension of validity) of existing Units etc.	This is not an expansion proposal. M/s. Athena Chhattisgarh Power Limited (ACPL) proposed a 2x600 MW Coal Based Thermal Power Plant at villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir Champa), Chhattisgarh; for which, Environment Clearance (EC) was obtained by M/s. Athena Chhattisgarh Power Ltd. vide letter no. F.No. J-13011/7/2009-IA.II(T) dated 04.06.2010.
Amendments granted, if Yes details	Amendment in EC was obtained for addition of project area of 65.235 acres along with extension of validity till 03.06.2017 to start production/operation vide letter no. F.No.J-13012/07/2009-IA.II(T) dated 22.03.2016. In 2017, again extension of validity was obtained for further period of three years till 03.06.2020 vide letter no. F.No.J-13012/07/2009-IA.II(T) dated 28.11.2017. However, due to poor financial condition of the company, the proposal to liquidate the asset was filed by State Bank of India in 2018 & the corporate insolvency resolution process ("CIRP") was initiated against ACPL.
Expansion / Green Field (new): (IPP / Merchant / Captive):	Green Field and Captive
If expansion, the date of latest monitoring done by the Regional Office (R.O) of MoEF&CC for compliance of the conditions stipulated in the environmental and CRZ clearances of the previous phases. A certified copy of the latest R.O. monitoring report shall also be submitted.	This is not an expansion project. The last verified compliance report by the Regional Office (R.O) of MoEF&CC for compliance of the conditions stipulated in the environmental clearance dated 16.08.2017. A copy of the same is enclosed as Annexure 1e of EIA Report.
Specific webpage address where all EC related documents (including monitoring and compliance related reports/documents) of the specific project under consideration are/will be available. Also contact details of PP's officer responsible for updating this webpage/information.	The website link will be created and the said documents will be uploaded after obtaining EC and other statutory clearances for the project. The person responsible for updating this webpage/information is Krishna V Kulkarni (Designation: Head-HSE, email id: krishna.kulkarni@vedanta.co.in)

Co-ordinates of all four corners OF TPP Site:	21°55'37.13"N, 83° 7'40.67"E 21°54'24.52"N, 83° 8'14.60"E 21°53'58.44"N, 83° 7'26.80"E 21°54'33.59"N, 83° 6'49.40"E
Average height of: (a) TPP site, (b) ash pond site etc. above MSL	Average elevation of: (a) TPP site: 261 m (b) ash pond site etc. above MSL: 265 m
Whether the project is in the Critically Polluted Area (CPA) or within 10 km of CPA. If so, the details thereof:	No
CRZ Clearance	No
Cost of the Project (As per EC and revised): Cost of the proposed activity in the amendment:	Rs. 8500 Crores (Expenditure incurred so far is Rs. 6493 Crores, and Rs. 1500 crores is the budget for further implementation and completion of the project and remaining cost is incurred in acquisition of the plant through NCLT)
Employment Potential for entire project/plant and employment potential for the proposed amendment (specify number of persons and quantitative information).	<ul style="list-style-type: none"> • Employment likely to be generated during construction phase: 200 (Permanent) & 2100 (Contractual) for period of 2 years. • Employment likely to generated during operational phase: 100 (Permanent) & 900 (Contractual) Preference will be given to local people as per their edibility criteria.
Benefits of the project (specify quantitative information)	The state of Chhattisgarh will get revenues in terms of taxes, local people will get opportunity in terms of employment and business opportunity like transport of raw materials, in short nearby people will get opportunity to improve their livelihood.

5. Electricity Generation capacity:

Capacity & Unit Configurations:	1200 MW (2x600 MW)
Generation of Electricity Annually	8935 MU @ 85 % PLF

6. Details of fuel and Ash disposal

Fuel to be used:	Coal
Quantity of Fuel required per Annum:	5.737 MTPA
Coal Linkage / Coal Block: (If Block allotted, status of EC & FC of the Block)	5.737 MTPA coal will be required for Thermal Power Plant. The Coal Supply Agreement has been made between South Eastern Coalfields Limited and ACPL for 2497272 TPA (2.497 MTPA).

	For rest of the coal agreement will be made after obtaining statutory permissions from concerned authorities for operation of the plant.
Details of mode of transportation of coal from coal source to the plant premises along with distances	Modes of transportation of coal from coal source to the plant premises are Road/ Rail/ Port within 100 km area.
Fly Ash Disposal System Proposed	High Concentration Slurry Disposal (HCSD)
Ash Pond/ Dyke (Area, Location & Co-ordinates) Average height of area above MSL (m)	Ash Pond Area: Approx 100 Ha Location: Adjacent to AHP/CHP Area within the project site Co-ordinates: Latitude- 21°54'40.77"N & 21°55'37.27"N Longitude: 83° 7'13.20"E & 83° 8'12.61"E Average height of area above MSL (m): 239m
Quantity of a. Fly Ash to be generated b. Bottom Ash to be generated:	Total Ash to be generated: 2.5 to 3.0 MTPA Fly Ash to be Generated: 2.1 to 2.4 MTPA Bottom Ash to be Generated: 0.4 to 0.6 MTPA
Fly Ash utilization (details)	Ash utilization will be done in line with the latest Notification issued by MoEF&CC. Potential users will be Brick / Paver makers in the vicinity, supply to road construction activities, feasibility of supply to cement industries on long term basis to be explored, etc.
Stack Height (m) & Type of Flue	275 meters (Chimney) Comprising dust and gaseous emissions

7. Water Requirement

Source of Water:	Water will be sourced from Mahanadi River
Quantity of water requirement:	81256 KLD
Distance of source of water from Plant:	35 KM
Whether barrage/ weir/ intake well/ jack well/ others proposed:	Barrage/ intake pump house/ Reservoir has already been constructed.
Mode of conveyance of water:	Pipeline
Status of water linkage:	At village Miruni, Intake pump house has been set up at the banks of Mahanadi River. Water permission allocated for 35 MCM/annum water from Mahanadi River vide letter no. /F 4-57/S-2/31/oJP/07 dated 28.06.2008. The water permission letter (expired). Letter has been submitted to State Investment Promotion Board for Renewal of water allocation permission in the name of Vedanta Limited. No ground water abstraction will be done.
(If source is Sea water) Desalination Plant Capacity	NA

Mode / Management of Brine:	NA
Cooling system	Induced Draft Cooling Tower

8. Land Area Breakup

Land Requirement: a) TPP Site b) Ash Pond c) Township d) Railway Siding & Others e) Raw Water Reservoir f) Green Belt g) others Total (if expansion state additional land requirement)	S.No.	Plant Units	Area covered (Ha)
	1.	Main Plant area	79.32
	2.	Ash-pond area	100.0
	3.	CHP & AHP / Railway Infrastructure	33.56
	4.	Colony and contractor shed including other open area	14.31
	5.	Raw Water Reservoir	40.47
	6.	Greenbelt	133.11
	Total Project Area		400.77
Status of Land Acquisition	Total land is in possession of the company.		
Status of the project: If under construction phase: please specify the reasons for delay, works completed till date and balance works along with expected date of completion. If under operation phase, date of commissioning (COD) of each unit. Whether the plant was under shutdown since commissioning, details and reasons.	The construction of the plant was initiated by the erstwhile management of ACPL and construction of project was completed more than 60%. However, due to poor financial condition of the company, the proposal to liquidate the asset was filed by State Bank of India in 2018 & the corporate insolvency resolution process ("CIRP") was initiated against ACPL. Therefore, the plant is not yet commissioned.		
Break-Up of land-use of TPP site: a. Total land required for project components b. Private land c. Government land d. Forest Land	A. Total land required for project components: 400.77 Ha B. Private land (Free Hold Land): 66.81 Ha C. Government Land (Lease Hold Land): 318.25 Ha D. Forest Land: 15.71 Ha		

9. Presence of Environmentally Sensitive areas in the study area

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/ letter/Remarks
Reserve Forest/Protected Forest Land	Yes	<ul style="list-style-type: none"> Basnajar RF (~2.0 km in NE direction from plant site) Burha Pahar RF (~5.5 km in NNE direction from plant site)

		<ul style="list-style-type: none"> • PF (~5.5 km in NE direction from plant site) • PF (~6.0 km in NE direction from plant site) • PF (~8.0 km in ENE direction from plant site)
National Park	No	No National Park lies within the 10 km study area of the project.
Wildlife Sanctuary	No	No Wildlife Sanctuary lies within the 10 km study area of the project.
Archaeological sites monuments/historical temples etc	No	No Archaeological sites monuments/historical temples lies within the 10 km study area of the project.
Names & distance of National parks, Wildlife sanctuaries, Biosphere reserves, Heritage sites, Rivers, Tanks, Reserve Forests etc. Located within 10 Km from the plant boundary:	Yes	<p>No National parks, Wildlife sanctuaries, Biosphere reserves, Heritage sites, Tanks falls within 10 km radius of the plant boundary.</p> <p>Following RF/PF falls within the study area:</p> <ul style="list-style-type: none"> • Basnajhar RF (~2.0 km in NE direction from plant site) • Burha Pahar RF (~5.5 km in NNE direction from plant site) • PF (~5.5 km in NE direction from plant site) • PF (~6.0 km in NE direction from plant site) • PF (~8.0 km in ENE direction from plant site) <p>Apart from that, following Rivers/Nalas falls within the study area:</p> <ul style="list-style-type: none"> • Seasonal Nala (passing through project site along with NW boundary of ash dyke area which will be kept intact and not be disturbed) • Mand River (~8.0 km in ENE direction from plant site) • Pathari Nala (~0.13 km in NE direction from plant site) • Dantar Nala (~7.0 km in ENE direction from plant site) • Lami Nala (~7.5 km in SW direction from plant site) • Sukhda Pond (~4.5 km in SW direction from plant site) • Kamrel Nala (~5.0 km in SE direction from plant site)

		<ul style="list-style-type: none"> • Ghatai Bandh (Kansa) (~5.5 km in SSE direction from plant site) • Water Reservoir Near Saraipali (~5.5 km in NE direction from plant site) • Bangan Nala (~8.5 km in WSW direction from plant site) • Canal (~0.15 km in West direction from plant site)
Additional information (if any)		-

10. Court case details

Any litigation/ Court Case pertaining to the project	No
Is the proposal under any investigation? If so, details thereof.	No
Any violation case pertaining to the project:	The company has not violated any laws or conditions after becoming the owner i.e., after 21 st July, 2022.
Additional information (if any)	No

vii. DESCRIPTION OF ENVIRONMENT

- Ambient air quality monitoring has been carried out at 8 monitoring locations within the 10 km radius of the study area on 24 hourly bases. It reveals that the concentrations of PM_{2.5} and PM₁₀ for all the 8 AAQM stations were in range of 25.9 to 44.5 µg/m³ and 50.9 to 79.8 µg/m³ respectively, and were found to be well within the prescribed limits. As far as the gaseous pollutants SO₂ and NO₂ are concerned, the prescribed CPCB limit of 80 µg/m³ has never surpassed at any station. The concentrations of NO₂ and SO₂ were found to be in range of 11.8 to 24.8 µg/m³ and 6.1 to 15.1 µg/m³, respectively. The concentration of the NO₂ & SO₂ was found minimum at plant site and maximum at Kharsia Town. The concentration of CO was not detected in majority of monitoring stations as it was Below Detection Limit (Detection Limit-0.5 mg/m³), however, observed maximum at Kharsia town (0.88 mg/m³).
- Ambient noise levels were measured at 08 locations in and around the plant site during the day and night time. Noise level varies from 51.8 to 58.5 Leq dB (A) during day time and from 41.7 to 48.2 Leq dB(A) during night time. Minimum noise level was observed in village Singhitari and maximum in village Kharsia, both during day as well as night time.
- The analysis of nine surface water samples within the study area reveals that there is a variation in a chemical composition of water samples from the nearby water bodies. The pH of the water bodies ranges from 7.02 to 8.06 indicating from normal to slightly alkaline in nature. The odour was found agreeable at all the nine sampling locations. Total hardness (86.32 to 149.98 mg/l), Total dissolved solids (125.0 to 241.0 mg/l), total suspended solids (5.2 to 14.0 mg/l), total alkalinity (72.12 to 112.35 mg/l) and conductivity (212.0 to 388.0

µS/cm) were low indicating low mineral enrichment of the water sample. The maximum value of COD and BOD (44 mg/l and 13.0 mg/l, respectively) value was found at Water Reservoir Singhitarai. The nutrients level was also found low viz. sulphate (9.84 to 26.65 mg/l), nitrate (1.49 to 5.27 mg/l), calcium (15.80 to 39.60 mg/l), magnesium (9.27 to 16.89 mg/l), chloride (17.4 to 52.36 mg/l), fluoride (0.32 to 0.78 mg/l), sodium (4.8 to 16.9 mg/l), potassium (0.8 to 3.6 mg/l), iron (0.05 to 0.26 mg/l) and phosphate (0.06 to 0.12 mg/l). The Dissolved oxygen varies from 6.3 to 7.2 mg/l which indicates that the water quality is quite satisfactory at all locations.

- d) The physico-chemical quality of groundwater indicates that the pH of the water samples ranged from 7.19 to 7.82 indicating neutral to slight alkaline in nature. The color, turbidity and total suspended solids in the ground water samples were not detected as it was below detectable limit (BDL). The odour and taste were found agreeable in the ground water samples at all sampling locations. The observed values of parameter vary as Total Hardness (216.98 to 398.65 mg/l), Alkalinity (167.07 to 356.23 mg/l), Total Dissolved Solids (352.0 to 679.0 mg/l) and maximum values of these three parameters were found in the sample of village Nimohi. The concentration of chloride was found to be (62.35 to 123.36 mg/l), sulphate (27.32 to 67.32 mg/l), Nitrate (2.23 to 9.42 mg/l), Calcium (67.30 to 136.52 mg/l), iron (0.12 to 0.32 mg/l), sodium (18.2 to 59.4 mg/l), potassium (1.6 to 3.8 mg/l) and Magnesium (11.92 to 20.58 mg/l). The value of Fluoride in the ground water is found to be 0.46 to 0.87 mg/l. The conductivity is observed to be minimum i.e., 559.0 µs/cm at Singhitarai and maximum i.e., 1028.0 µs/cm at Village Nimohi. Thus, it can be concluded from the sampling results for groundwater that all the samples were observed to be within the permissible limits and complies to the drinking water standard (IS: 10500-2012).
- e) Sampling of Additional Surface water (ASW) and additional Ground water (AGW) (10 locations within 2 km radius of the plant boundary) has been done according to the ToR point no A(vi) of ToR letter dated 10.05.23. Apart from the samples collected during the baseline study (i.e., 2 surface water & 4 ground water within 2 km radius of the plant boundary), Additional samples (8 surface water & 6 ground water) within 2 Km radius of the project site were collected during May 2023, to comply with the stated ToR point. The results of physico-chemical parameters showed that all the collected water samples of ASW and AGW are within the prescribed limit of Indian standards (IS: 2296 and IS: 10500-2012, respectively) and ground water is suitable for drinking purpose.
- f) Soil samples were collected from 08 different specified locations within the study area for analysis of physico-chemical parameters. The soil samples were Reddish Brown, Dark Brown and Light Brown in colour indicating well drained soil samples. The textures of soil samples were Sandy loam to Loamy Sand, which is desirable for agriculture for this region. All soil samples have moderately acidic to moderately alkaline in nature, having pH range from 7.06 to 7.64. Water holding capacity (40.86 to 45.87%) and bulk density (1.38 to 1.50 g/cc) were ideal for the crops. Physical quality of soil samples is good for the plantation. All the major nutrients were present, namely organic matter (0.78 to 1.06 %), nitrogen (171.67 to 222.89 kg/ha), phosphorus (30.13 to 45.68 kg/ha) and potassium (194.68 to 324.59 kg/ha). The particle size distribution varies as sand from 69 to 79 %, Silt from 13 to 28 % and Clay varies as 7 to 14 %. The porosity was found to be varying from 49.32 to

54.33 %. Other nutrients were present in the soil samples, namely calcium (1442.11 to 2404.4 mg/kg), magnesium (331.68 to 493.01 mg/kg), zinc (30.14 to 59.64 mg/kg). SAR value was also calculated for the study and it was found in the range of 0.71 to 0.93.

- g) Above baseline study results shows that the emission levels & water quality parameters are within the prescribed norms, however the ACPL will adopt adequate Environmental pollution control measures in order to minimize the environment pollution due to the proposed expansion project activities. Details are given in Chapter 4 & 10 of this EIA/EMP report.

h) Biological Environment

Flora: Total 93 species of flora were reported out of which 51 are trees and small trees, 25 species of shrubs and under shrubs, 8 species of climbers and 9 species of grasses have been recorded in the study area.

Fauna: Among fauna, 8 species of mammals, 116 species of birds and 4 species of reptiles and amphibians were recorded from the study area. As per authenticated list by DFO, no schedule 1 species has been observed in the study area.

viii. Socio-Economic Environment

The Athena thermal power plant is located in the Sakti district, State of Chhattisgarh. The total no. of villages observed within the 10 km radius from the plant area is 123. The population as per 2011 Census records is 147598 (for 10 km radius) and there is total 37322 households residing within the studied area. Average household size is 6 which is the standard family size in India. Sex ratio of the study area is 998 (females per 1000 males). Total SC and ST population distribution is 40814 and 25370 respectively. The literacy rate in the Study area is observed to be 73.59%.

47.2.3 The EAC during deliberations noted the following:

The proposal is for grant of Environmental Clearance to the project 2x600 MW Coal Based Thermal Power Plant at villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir-Champa), Chhattisgarh by M/s Athena Chhattisgarh Power Limited.

The project/activity is covered under category A of item 1(d) 'Thermal Power Plants' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

The EAC noted that Environment Clearance (EC) was granted by MoEF&CC to 2x600 MW Coal Based Thermal Power Plant at villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir Champa), Chhattisgarh by M/s. Athena Chhattisgarh Power Ltd. vide letter no. J-13011/7/2009-IA.II (T) dated 04.06.2010. Subsequently, amendment in EC and extension of validity of EC was granted by MoEF&CC vide letter dated 22.03.2016. Further, extension of validity of EC was granted by MoEF&CC vide letter dated 28.11.2017.

The construction activities were carried out till 2016 and by then more than 60 % construction was completed at the project site. However, due to poor financial condition of the company, the proposal to liquidate the asset was filed by State Bank of India in 2018 & the corporate insolvency resolution process (“CIRP”) was initiated against ACPL before the National Company Law Tribunal, Hyderabad. During liquidation proceedings, Vedanta Limited emerged as the successful bidder & acquired Athena Chhattisgarh Power Limited (Company or Corporate Debtor) and a Sale Certificate dated 21st July, 2022 was issued by the Liquidator.

Further, the MoEF&CC has granted Terms of Reference vide letter dated 10.05.2023 to the 2x600 MW Coal Based Thermal Power Plant at villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir-Champa), Chhattisgarh by M/s Athena Chhattisgarh Power Limited, without Public hearing under para 7(ii) of the EIA Notification 2006 as amended, as the project activity has been 60% completed.

The EAC suggested to increase area under green cover and advised to resubmit revised area for green belt development plan along with revised Socio-Economic Development Plan making provisions for School in nearby village. The EAC further noted certain data errors in concentration of PM2.5 presented during the meeting therefore proper justification was sought for incremental concentration of PM2.5.

In view of the above, PP vide letter dated 26.09.2023 submitted the details sought by the EAC. The details submitted by the PP are as under:

S. No.	Additional Details	Reply
1.	PP shall submit the revised greenbelt development plan	Out of the total plant area (i.e. 400.77 ha), 117.33 ha is already covered under greenbelt and it will be further increased upto 137.33 Ha (~ 34.26%) of greenbelt/ plantation area by increasing 20 Ha area. Revised Greenbelt Development Plan with increase in proposed greenbelt area from 15.78 Ha to 20 Ha has been prepared and submitted.
2.	PP shall submit the details for Maximum Incremental Concentration of PM2.5	The details of the emission sources for PM2.5 have been submitted. The incremental concentration for point source was calculated as 0.755 microgram/m3. However, including point source as well as area source (due to the unloading & handling of coal as well as exposure from the Ash Pond area) the incremental concentration for PM2.5 has been calculated as 1.27 microgram/m3. Isopleth showing the same has been submitted.

3.	PP shall submit the revised Socio-Economic Development Plan for School in the nearby village.	The PP has allocated budget of Rs. 3.79 Crores to address the issues raised in public notice. For implementation of socio-economic development activities, ACPL has allocated budget of Rs. 5.1 crore along with two major projects including Construction of School and Health Centre with a budget of Rs. 10 crore. Detailed action plan with budget and timelines has been submitted.
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47.2.4 The EAC after detailed deliberations on the information submitted and as presented during the meeting **recommended** the proposal for grant of Environmental Clearance to the project 2x600 MW Coal Based Thermal Power Plant at villages Singhitarai, Benipali, Odekera & Nimohi, Tehsil Dabhara, District Sakti (erstwhile Janjgir-Champa), Chhattisgarh by M/s Athena Chhattisgarh Power Limited under the EIA Notification 2006, as amended, subject to compliance of following specific environmental safeguard conditions, in addition to the standard EC conditions prescribed for the thermal power plants:

[A] Environmental Management

- i. Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- ii. Peripheral Green belt (Three row plantation) with Miyawaki plantation technique of 15 m thickness along the plant boundary shall be developed with more than 90% survival rate of the plant species focusing on Ash Dyke area.
- iii. Extensive green cover within 2 km range of the plant boundary shall be developed. An action plan in this regard to be prepared in consultation with CPCB/expert institution and submitted before Regional Office of the Ministry within 3 months.
- iv. 24X7 online monitoring system for ambient air quality shall be established with its connectivity with SPCB and CPCB server. Stack monitoring shall be done through 24X7 online monitoring system.
- v. Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as waste delivery points, transfer areas and other vulnerable dusty areas shall be provided along with an environment friendly sludge disposal system. Water Sprinkling on roads shall be done in every 6 hours in winter season and 3 hours in summer season of roads within 1 km range approaching the plant. A logbook shall be maintained for the activity and be in six-monthly compliance report.
- vi. LED display of air quality (Continuous Online monitoring) shall be installed on the roadside (within 1 km range) and nearby hotspots viz. residential colony, Schools Hospitals; maintenance of devices shall be done on regular basis.
- vii. Everyday cleaning of road/Paved roads within 1 km range of plant site shall be ensured throughout the year through vaccum based vehicle.
- viii. Environment Audit of plant shall be done annually and report shall be submitted to Regional office of the Ministry.
- ix. Project proponent shall explore the use of treated sewage water from the Sewage Treatment

- Plant of Municipality / local bodies/ similar organization located within 50km radius of the proposed power project to minimize the water drawl from surface water bodies.
- x. A detailed action plan regarding leachate handling shall be prepared and implemented in consultation with SPCB and the same shall be submitted to the Regional Office of the Ministry. Zero liquid discharge shall be adopted. Leachate shall be treated and reused. No treated leachate shall be discharged in any circumstances. Characteristics of Leachate and the treated leachate shall be monitored once in quarter and records shall be maintained.
 - xi. Oil and grease recovered from the treatment plant should be disposed only through authorized recyclers.
 - xii. Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.
 - xiii. Fly ash handling shall be done strictly as per extent rules/regulations of the Ministry/CPCB issued from time to time including Ministry's Notification No. S.O.5481(E) dated 31st December, 2021. No coal shall be transported through road shall be allowed.
 - xiv. Monitoring of surface water quality and Ground Water quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report.
 - xv. A well designed rain-water harvesting system shall be put in place within six months, which shall comprise of rain water collection from the built up and open area in the plant premises and detailed record kept of the quantity of water harvested every year and its use.
 - xvi. No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/ operation of the power plant. A list of all small and large water bodies shall be prepared after physical survey within 10 km radius of the project. A detailed conservation plan for all these water bodies shall be prepared and submitted before the Regional Office of the Ministry within 3 months. Implementation status of conservation plan be submitted in 6 monthly compliance report.
 - xvii. Watershed development plan shall be prepared and implemented focusing on micro watershed development within 10 km radius of the project. Action taken report in this regard be submitted before regional office of the Ministry in 6 monthly compliance report.
 - xviii. A detailed ecological monitoring and survey covering forestry, fisheries, wildlife and its habitat shall be done once in two years to assess the impacts of project on the local environment and ecology. Monitoring report shall be uploaded on the Parivesh Portal and a copy of the same be submitted to the regional office of MoEF&CC.
 - xix. For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
 - xx. An Environmental Cell headed by the Environment Manger with postgraduate qualification in environmental science/environmental engineering, shall be created. It shall be ensured that the Head of the Cell shall directly report to the Head of the Plant who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.
 - xxi. The unit shall make the arrangement for protection of possible fire hazards during

- manufacturing process in material handling. Firefighting system shall be as per the norms.
- xxii. The energy sources for lighting purposes shall preferably be LED based.
 - xxiii. Explore desulphurization from biotechnological method.

[B] Socio-economic

- xxiv. Public grievance redressal system shall be established under supervision of project head. The functioning of the system shall be reviewed every month.
- xxv. A vision document comprising prospective plan for implementation of various CER activities, plantation programme outside the project cover area, rejuvenation and conservation of water bodies within 5km radius of the project cover area, creation of sacred groves etc. shall be prepared and submitted to the Regional Office of the Ministry within 6 months. Implementation status of the same shall be reported to the Regional office in 6 monthly compliance report.
- xxvi. Epidemiological Study among population within 5 km radius of project cover area shall be carried out on regular interval (Once in two year) through independent agency. Necessary measures shall be taken as per findings of study in consultation with district administration. Action taken report shall be submitted to the Regional Office of the Ministry.
- xxvii. The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of Environmental Clearance for undertaking the CER activities, committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.
- xxviii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xxix. A multi-specialty Hospital with 100 beds shall be established and managed by the PP to cater the need of population living within 10 km. The project affected families shall be given free of cost treatment.
- xxx. A 10+2 Grade school with capacity of at least 500 students with well-equipped modern science practical lab, computer lab and other necessary infrastructure shall be established to provide education facilities in the area. The students from project affected families shall be given free of cost education.
- xxxi. The establishment of a robust grievance redressal mechanism to address concerns and complaints from local communities regarding the power plant's operations, environmental impacts, or social issues shall be developed. A Senior Officer shall review the functioning of the mechanism twice in a month.

Miscellaneous

- xxxii. Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- xxxiii. All necessary clearance from the concerned Authority, as may be applicable should be obtained prior to commencement of project or activity.

Agenda Item No. 47.3:

3x660 MW Thermal Power Project at village Berui, Jurwat, Kapari, and Khansemra, District Bara, Allahabad, Uttar Pradesh by M/s Prayagraj Power Generation Company Limited- Amendment in Environmental Clearance (EC) – reg.

[Proposal No. IA/UP/THE/442365/2023; F. No. J-13011/60/2008-IA.II(T)]

47.3.1 The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 8th September 2009 for the project 3 x 660 MW Thermal Power Project located at Bara, Prayagraj in favour of M/s Prayagraj Power Generation Company Limited.

47.3.2 The project proponent made a presentation before the EAC and informed that:

1. Prayagraj Power Generation Company Limited is a 1980 MW coal-based, (3x660 MW), super critical thermal power plant located in Bara Tehsil, Prayagraj District, Uttar Pradesh. PPGCL through its developer M/s Jaiprakash Associates Ltd. has set up the 1980 MW Supercritical Thermal Power Plant. All the three units 1,2 and 3 achieved COD on 29.02.2016, 10.09.2016 and 26.05.2017 respectively.
2. PPGCL had raised loans from several financial institutions for the purpose of execution, operation and maintenance of the Project. However, for various reasons, PPGCL failed to service its debt obligations under the credit facility agreements, which resulted in lenders classifying the accounts of PPGCL as a Non-Performing Asset, and hence a 'Stressed Asset'.
3. Thereafter, on 21.11.2017, SBI issued Notice of Enforcement of Pledge on the shares of PPGCL held by JPVL wherein it was made clear that in case JPVL fails to pay the outstanding amount as on 31.10.2017, the pledge on the shares of PPGCL held by JPVL shall be enforced. On 15.12.2017, PPGCL informed UPPCL about Pledge Invocation letters by lenders and lenders proposing to undertake a Competitive Bidding Process for selection of a new entity for transfer of management and ownership of PPGCL.
4. Pursuant to a competitive bidding process initiated by SBI, Renascent Power Ventures (RPV) acquired majority stake (75.01%) in PPGCL on 04.12.2019. Accordingly, now PPGCL is owned by RPV which is a 100% subsidiary of Resurgent Power Ventures (Resurgent). Notably, Resurgent is a Joint Venture formed by The Tata Power Company Limited (through its wholly owned subsidiary Tata Power International Pte. Ltd), ICICI Bank and reputed international investors.

Description of the Project

5. The project is classified as category “A” under the MoEF&CC notification dated 14th September 2006 and involves in thermal power plant operation of 1980 MW. Environment clearance to the project was granted on 8th September 2009. All the three units 1,2 and 3 achieved COD on 29.02.2016, 10.09.2016 and 26.05.2017 respectively. The plant is in operation and has a valid consent to operate till 31.12.2025.

6. The area is bounded between –

S. No.	Latitude	Longitude
1	25°12'45.00"N	81°39'42.96"E
2	25°11'48.30"N	81°40'33.28"E
3	25°11'2.57"N	81°38'20.34"E
4	25°11'11.81"N	81°38'4.61"E

7. The nearest railway station – Lohgara railway station at a distance(aerial) of 3 km.

8. The nearest highway – NH35 (NH 76 previously)
The nearest airport - Prayagraj Airport, Bamrauli (aerial Distance-30 KM)

Raw Material

9. Coal- PPGCL has executed Fuel Supply Agreement (FSA) of 6.95 MTPA on 29.08.2013 with Northern Coalfields Ltd (NCL) for supply of coal.
10. Water- Irrigation department, U.P. confirmed the allocation of 96 cusec (9786 m³/hr) of water by, water allocation letter 1688(1)/24-1-09-2726/2007, dated 19.06.2009. Water is being pumped through intake water structure, installed at Yamuna river, to the plant by pipelines (17 KM approx.) and stored in reservoir.

Power Purchase Agreement

11. PPGCL has a 25-year Power Purchase Agreement (PPA) with the 5 distribution utilities (Procurers) of the state of Uttar Pradesh. 90% of the power generated from project is being supplied to the five Procurers under this PPA.

Power Evacuation Arrangement

12. Power evacuation is done at 765 kV Single Circuit Transmission Line, which is connected to Manipuri Substation of UPPTCL. In addition to that, one (1) No. of 400 kV Double Circuit line is also provided to evacuate power.

Proposed Amendment of Environment Clearance Condition

13. Environment clearance condition (xxii) states that – “An amount of Rs. 32 crore as capital and Rs. 6 Crores /annum as recurring should be earmarked for activities to be taken up under CSR by the above proponent. Details of the activities to be undertaken in this regard should be submitted within one month from the date of issue of this letter.”
14. PPGCL vide its letter – PPGCL/113 dated 27th October 2009 submitted the reply of the above-mentioned condition stating the details of activities to be taken up under CSR are –
- i) Educational facilities
 - ii) Health facilities
 - iii) Augmenting water resources
 - iv) Road Connectivity

CSR initiatives

PPGCL has taken following CSR initiatives in the surrounding community.

Education- PPGCL has established a school and is providing infrastructure and financial support to the school. The school is catering education requirement of the surrounding community. The school is being managed by DAV CMC, New Delhi. At present around 400 students are studying in the school.

- 50% subsidy in the school fee is being provided to community students.
- 10 Nos of smart class established in classroom and green chalkboard provided in all the classroom.
- Treated drinking water facility provided.
- Computer lab established with 20 computers.
- Science lab established.
- Sports and music equipments provided.
- Fencing of open gallery done and fire protection system installed.
- Desk and chair provided.
- Roof top solar of 204 kW installed at school building.

Health – PPGCL has built and established a health center having facility of OPD, specialist consultant, ECG, Xray, Pathology and pharmacy. The health center is providing medical facility to the surrounding community. During COVID period, the health center has been utilised as an isolation center and as a COVID vaccination center in collaboration with CHC Shankargarh, IAHV (International association for human values) and Doctors For You organisation.

- Providing infrastructure and financial support to health center.
- The health center is being operated by Wellspring Healthcare Pvt Ltd.
- Medical equipment like ECG, digital Xray with CR system, CBC analyzer, Microscope, Autoclave, Centrifuge machine along with other medical equipment and consumables.

- During COVID period, provided vaccination to 68720 people in Uttar Pradesh out of which around 40308 people vaccinated in Prayagraj in collaboration with CHC Shankargarh, IAHV (International association for human values) and Doctors for You organisation.
- Providing free medicine and subsidised medical diagnosis facility to surrounding community.
- Roof top solar of 61 kW installed at hospital building.

Augmenting Water Resources – PPGCL has undertaken following activity to provide access to water and drinking water to the community.

- Installed 25 Nos of hand pump in the surrounding villages
- Seven Nos of treated drinking water system established to provide clean drinking water
- One check dam constructed in Jorwat village.
-

Skill Building – PPGCL has partnered with NSDC (National Skill Development Corporation) and NGO's (SAVE, Head Held High) to provide skill building training to youths and women of the surrounding community.

- Provided skill building training to 450 youths on solar panel installation, Handset repairing and LED repairing.
- 184 youths got placement.
- 80 women trained through NGO partner on stitching
- Established a fly ash brick unit being operated through NGO –Gramin Vikas Samittee
- Formation of 25 SHGs with approx 250 women is being undertaken to provide training and livelihood opportunity through NGO partner SAVE.
- Economic resilience program to support people of low income group through NGO partner Head Held High is being undertaken.
- Training to 200 youths through NSDC on Data entry operator, Retail and Office assistance is in process.

Social & Financial Inclusion – Under Social & Financial Inclusion program, we are supporting the community by –

- Installed 50 solar streetlights during FY'22 and in process of installing 60 solar streetlights in FY 24 in the surrounding community.
- 270 Nos of domicile, cast and Income certificate made for the community persons from Government offices.
- 445 beneficiaries have been registered under E-shram Card.
- 246 beneficiaries registered under labour card.
- Nutrition supplement provided to 100 TB patients for six months in line with Govt of India and Govt of UP guidelines for TB patients.
- Health awareness program for women

- Partnered with NGO Haqdarshak to facilitate benefits of social security scheme to 450 families during FY'24.

Request - Amendment of EC Condition no. xxii

15. Environment clearance condition (xxii) states that – “An amount of Rs. 32 crore as capital and Rs. 6 Crores /annum as recurring should be earmarked for activities to be taken up under CSR by the above proponent. Details of the activities to be undertaken in this regard should be submitted within one month from the date of issue of this letter.”

Amendment Requested

16. With respect to CSR recurring expenditure, It is requested to amend the recurring expenditure in line with Section 135 of Companies Act, 2013 which states that company shall spend at least two percent of the average net profits of the company made during the three immediately preceding financial years.

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
1	EC condition No (xxii)	An amount of Rs. 32 Crore as capital and Rs. 6 crores/annum as recurring should be earmarked for activities to be taken up under CSR by the above proponent.	Amendment is sought for CSR expenditure condition in line with Section 135 of Companies Act, 2013 which states that company shall spend at least two percent of the average net profits of the company made during the three immediately preceding financial years.	Since, Section 135 of Companies Act, 2013 states that company shall spend at least two percent of the average net profit of the company made during the three immediately preceding financial years.

47.3.3 The EAC during deliberations noted the following:

The proposal is for amendment in Environmental Clearance granted by the Ministry vide letter dated 8th September 2009 for the project 3 x 660 MW Thermal Power Project located at Bara, Prayagraj in favour of M/s Prayagraj Power Generation Company Limited.

The EAC after detailed deliberations on the status of CSR activities done by the PP till date noted that those activities also covered under CER. This was also observed that after modified CER

regulations of the MoEF&CC the EC condition at Sr. No. (xxii) of the Environmental Clearance dated 8th September 2009 for the project becomes redundant. The EAC also examined the status of implementation of activities committed by the PP during public consultation/hearing done at time of grant of environmental Clearance and being satisfied with the implementation status, the EAC recommended for the amendment as requested by the Project Proponent in environmental clearance condition with following conditions:

1. Periodic epidemiological study shall be conducted (Once in a year) within 5 km range of the power plant through reputed expert government/private institution (empanelled by the State Government/Central Government for the purpose) and observations /recommendations of the study shall be submitted to IRO in 6 monthly compliance report along with action plan for implementation of the recommendations.
2. All other conditions of the Environmental Clearance letter dated 8th September 2009 for the project 3 x 660 MW Thermal Power Project located at Bara, Prayagraj in favour of M/s Prayagraj Power Generation Company Limited shall remain unchanged.

Agenda Item No. 47.4

Expansion of Darlipali Super Coal Based Thermal Power Project by installing 1x800 MW (Stage-II) project in existing project (2x800 MW) in an area of 159.9124 Ha (additional) located at village Darlipali, Taluk Lephripara, District Sundergarh (Orissa) by M/s NTPC Limited - Amendment in Terms of References - reg.

[Proposal No. IA/OR/THE/441147/2023; F. No. J-13012/65/2008-IA.II(T)]

47.4.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter F.No.J-13012/65/2008-IA.I(T) dated 17.04.2023 for the project Expansion of Darlipali Super Coal Based Thermal Power Project by installing 1x800 MW (Stage-II) project in existing premises at Village Darlipali, Taluk Lephripara, District Sundergarh (Orissa) in favour of M/s NTPC Limited.

47.4.2 The project proponent has requested for amendment in the ToR with the details are as under;

S. No.	Para of ToR issued by MoEF&C	Details as per the ToR	To be revised/ read as	Justification/ reasons
1.	6 [A] (i)	The site selected for ash disposal is not suitable. Alternate site shall be selected and plan to reduce the area for ash disposal by using latest	The paragraph may be deleted	The area proposed for the ash pond is bare minimum and in line with MoEF&CC Notification dated 31.12.2021 and 30.12.2022. Therefore, a reduction in ash

		technology. Also remove the forest area located at downward side of the plant towards Basundhara river. Accordingly, a revised layout map shall be submitted along with EIA/EMP.		pond area is not feasible. However, NTPC has undertaken a detailed analysis of three alternate locations for locating additional ash dyke apart from the proposed location (thereby making four alternate location) and the analysis reveals that the proposed location is the most suitable location considering all the relevant factors. NTPC is already adopting state of the art HCSD system for disposal of unutilized ash in which there is no risk of water pollution. However, a distance of 500 m towards Basundhara river shall be left to protect the river from the adverse impacts of the ash dyke and the ash dyke shall be provided with HDPE Liner to protect surface & ground water resources.
2.	6 [A] (v)	Details of Ash Management of existing and proposed project shall be submitted keeping in view that the fly ash disposal area for existing plant shall not be used for proposed expansion.	The phrase “keeping in view that the fly ash disposal area for existing plant shall not be used for proposed expansion.” May be deleted	As the units of both Stage-I and Stage-II shall be within the same premises, the ash dykes of both the stages shall be operated in synchronization with alternate filling and raising of lagoon to facilitate higher ash utilization.

47.4.3 The EAC during deliberations noted the following:

The proposal is for amendment in Terms of Reference granted by the Ministry vide letter dated 17.04.2023 for the project Expansion of Darlipali Super Coal Based Thermal Power Project by installing 1x800 MW (Stage-II) project in existing premises at Village Darlipali, Taluk Lephripa, District Sundergarh (Orissa) in favour of M/s NTPC Limited.

The EAC examined and deliberated on the justification for amendments proposed by the project proponent in the TOR. All merits/demerits of locations of ash dyke for Darlipali STPP, Stage-II

were discussed in detail. The EAC was of the view that since proposed site location selected for construction of new ash dyke has short distance from Basundhara River and accidental release/seepage of ash/ash slurry is quite possible particularly in rainy season. The EAC then suggested the project proponent to explore possibilities to reduce the area specially forest area for ash disposal by using latest technology. It was also observed that situation of development of green belt around existing ash dyke is also not satisfactory. EAC also felt need of conducting the hydrology study of river and area and assessment of impacts on the river hydrology patterns after establishment of existing plant over the years.

Accordingly, the PP vide letter no. CC:ESE:9549:2023:GEN dated 03/10/2023 informed that based on discussions, NTPC hereby submits that the construction of ash dyke at proposed location option-I with 20 acres green belt towards the Basundhara River side is the most feasible option and the same may kindly be accepted by the EAC. As shown in Figure-1 and Figure-2, the provision of green belt will further increase the distance of dyke from Basundhara River by about **70-90 mtr.** (542 m to 614 m and 548 m to 638 m). This is in addition to the green belt proposed to be provided around the ash dyke, as discussed during EAC meeting.

Under the option, out of 170 acres land proposed to be acquired, 20 acres towards river shall be used for green belt and balance 150 acres along with 30 acres already available with NTPC (total 180 acres) shall be used for construction of ash dyke for stage-II. Further the two water bodies existing in the ash dyke area shall be re-generated elsewhere.

The EAC after examination of the justification provided recommended for acceptance of the amendments as proposed by the Project Proponent subject to following additional TOR:

1. Action plan for development of a dense green barrier between boundary of proposed ash dyke and Basundhara River.
2. The action plan for conducting stability analysis (yearly) study shall be submitted after vetting through reputed expert Government Institute.
3. Time bound action plan for development of green belt around ash dykes including existing ash dykes shall be submitted.
4. hydrology study of river and area and assessment of impacts on the river hydrology patterns after establishment of existing plant shall be submitted.
5. Explore the possibilities for reducing the Forest area involved in the proposed expansion.

Agenda Item No. 47.5

2x600 MW Thermal Power Plant facility near Nana Manda, Khajurda and Soda Targadi Village, Khambalia Taluka, Dev Bhumi Dwarka District, Gujarat by M/s Essar Power Salaya Limited – Terms of References (TOR) – reg.

[Proposal No. IA/GJ/THE/441422/2023; F. No. J-13012/03/2023-IA.I(T)]

The project proponent vide email dated 26.09.2023 has informed that due to unavoidable circumstances they are not in a position to attend the EAC meeting.

The EAC therefore **deferred** the proposal.

The meeting ended with vote of thanks to the Chair.

ATTENDANCE

S. No.	Name	Role	Attendance
1.	Shri Gururaj P. Kundargi	Chairman	P
2.	Shri K. B. Biswas	Member	P
3.	Shri Suramya Dolarray Vora	Member	P
4.	Shri Sheo shanker Rai	Member	P
5.	Dr. Santosh Kumar Hampannavar	Member	P
6.	Dr. Umesh Kahalekar	Member	P
7.	Shri M. P. Singh	Member	P
8.	Prof (Dr.) Nandini N	Member	P
9.	Shri Yogendra Pal Singh	Member Secretary	P

APPROVAL OF THE CHAIRMAN

----- Forwarded Message -----

From: gpkundargi@gmail.com

To: Yogendra Pal Singh <yogendra78@nic.in>

Sent: Tue, 17 Oct 2023 12:44:04 +0530 (IST)

Subject: Re: Draft Minutes of the 47th EAC (Thermal) meeting held on 26th September,2023-reg.

Dear Dr Yogendra ji

Draft Minutes of 47th EAC are fine with me & Approved for further needful.

Thank you

G P Kundargi