D. PRABHAKAR RAO
Chairman & Managing Director

TELANGANA STATE
POWER GENERATION CORPORATION LTD.
(Govt. of Telangana State Undertaking)
Vidyut Soudha, Khairatabad, Hyderabad-500 082.

To,
The Joint Secretary
Ministry of Environment, Forest and Climate Change
3rd Floor, Prithvi Wing,Indira Parvayaran Bhawan
Jor Bagh, New Delhi-110003
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Lr.No.CMD/CE/C/Thermal/SE/C/TCD-I/EE/C/TCDI/D.No220/16, dt 08-10-16

Sub : TSGENCO-4000MW(5x800MW) Super Critical Coal based Yadadri Thermal Power Station at Veerlapalem Village, Damarcherla Mandal, Nalgonda (Dist), Telangana – Environmental Clearance – Reg

Ref : 1. Our Proposal No: IA/TG/THE/31153/2015, Dated 19.09.2015
2. Lr.No.CE/C/T/SE/C/TCD-I/EE/C/TCD-I/F.Damaracherla/D.No:213 /15, Date 18.09.2015.
3. Acceptance letter for TOR.F.NoJ-13012/18/2015-IA.I(T)s of Member Secretary, MOEF&CC, New Delhi.
4. Standard ToR issued vide Letter. No. J-13012/18/2015-IA.I(T)s, dt. 02.11.2015 of MoEF & CC, GoI, New Delhi.
5. Additional ToR issued vide Letter. No. J-13012/18/2015-IA.I(T), dt.16.02.2016 of MoEF & CC, GoI, New Delhi.
6. Lr.No.CE/C/Thermal/SE/C/TCD-I/EE/C/TCD-I/D.No:118/16, Date 25.06.2016.
7. MOEF & CC Minutes of Meeting dated 29-30.08.2016 displayed on MOEF & CC web site on 12.09.2016
8. MOEF & CC Minutes of Meeting dated 29-30.08.2016 displayed on MOEF & CC web site on 04.10.2016

Sir,

We submit that our 4000 MW**(5x800MW) Super Critical Coal based Yadadri Thermal Power Station at Veerlapalem Village, Damarcherla Mandal, Nalgonda (Dist), Telangana** for Environmental Clearance was presented before EAC(Thermal Power) on 30.08.2016 at New Delhi. During the appraisal, the committee observed that there are certain shortcomings in the EIA/EMP and opined that the EIA/EMP needs to be redone.

Contd..p-2

The following is the extract of the minutes of meeting uploaded on MOEF & CC website initially on 12.09.2016

"as the Public Hearing was valid and it was done very recently, the PP should publish Public Notices in the leading local newspaper, gram panchayats, web site of PP etc along with the intimation that the public can send its comments if any to the PP and also MOEF & CC on the revised EIA/ EMP (which shall be available on Ministry's web site, PPs web site, Regional Office of SPCB, Gram Panchayat etc) within 15 days after publication of the Public Notice".

2.5.3. The EAC suggested to PP to revise EIA in light of the above mentioned observations. The proposal was accordingly deferred".

Copy of the above is enclosed as **Exhibit -1.**

Later, to our surprise we have found that the minutes were revised and uploaded on MoEF&CC website on 04.10.2016 after a gap of 22 days, wherein it was mentioned as follows

"16. In light of the major shortcomings as noted above, EIA/EMP needs to be redone (though currently used baseline data can be used) which needs to address above mentioned points, and public hearing is also to be conducted again based on the redone EIA/EMP.

(2.5.3) The proposal was accordingly, deferred".

Copy of the above is enclosed as **Exhibit -2**

By revising the minutes of the meeting TSGENCO is facing quite an embarrassing position and the power starved new state of Telangana will be facing acute power problem due to delay in commencement of the project which may be due to reconducting of the public hearing.

TSGENCO would like to submit that, the Public hearing was conducted recently on 31.05.2016. The Public Hearing was attended by about 3500 persons in which 54 number spoke and 16 written representations were also received. All the public attended the meeting including various public representatives from different political parties have welcomed the project.

Also we would like to submit that, the following projects with similar shortcomings in the EIA/EMP Reports were also directed to upload the revised EIA/EMP Report on the website to seek the Public Comments and were subsequently given Environmental Clearances by MOEF & CC without reconducting public hearing.

Contd...p-3

a. Odisha Thermal Power Corporation Ltd – 3 X 800 MW at Annupurna Khamar Village, Kamakhyanagar Taluk, Denkanal District, Odisha (Enclosed as **Exhibit -3**). In this case the committee has held the validity of PH is same as validity of TOR.

b. KU Thermal Power Private Limited - 2x660 MW (1320 MW) Coal Based Thermal Power Plant at Ottapidaram & Sillanattam villages, Ottapidaram Taluk, Thoothukudi District, Tamil Nadu State(Enclosed as **Exhibit -4**). In this case Committee has recommended EC based on the revised EIA/EMP Report after seeking Public Comments.

c. 2 X 600 MW sub critical TPP of M/s Chettinad Power Corpn Pvt Ltd at Tharangambadi Taluk, Nagapattinam District, Tamil Nadu(Enclosed as **Exhibit -5**). In the case of Chettinad Power (**Exhibit – 5**), the Honourable NGT has upheld the Public hearing conducted and asked the project proponent to Revise and upload the EIA/EMP Report. Subsequently based on the Judgement of NGT, MOEF & CC has upheld the Environmental Clearance granted for the project by stipulating certain additional conditions.

In all the above cases, MOEF & CC had asked the project proponents to revise EIA report and upload on web sites (MOEF & CC and PP) to seek comments from Public before granting the Environmental Clearance.

Thus it may be seen that MOEF & CC had granted Environmental Clearances to projects based on revised EIA Reports uploaded on the website of MOEF & CC and PP after seeking Public Comments without insisting on reconducting of Public Hearing.

TSGENCO is spearheading the development of new power projects in the newly formed State of Telangana.

TSGENCO request the MOEF & CC,GoI, New Delhi to exempt from reconducting of Public Hearing due to the following reasons and in light of similar precedent cases referred above

a. Public Hearing was recently conducted as per SO 1533 guidelines which was attended by about 3500 persons.
b. There is no change in the capacity of plant (5 X 800 MW) or technology of the plant.
c. There is no change in location of Project Site.
d. There is no change in Area of the project (2800 acres).
e. There is no change in Survey Numbers of the project area.

Contd...p-4

f. The land choosen for the above project is site specific as it is having good road connectivity, rail connectivity, near by water source and also the MoEF&CC,GoI has diverted the above land in favour of TSGENCO for establishing the Power plant.

g. The sub committee of EAC (Thermal Power), MoEF&CC, GoI,New Delhi has recommended for issue of ToR after their site visit and satisfying with the suitability of the site conditions for establishing the power plant.

TSGENCO would like to submit to MoEF&CC that, it has taken up preparation of revised EIA report as per the initial minutes of meeting issued vide reference 7th cited and request the MOEF & CC to exempt TSGENCO from reconducting the Public Hearing.

Yours faithfully,

Encl: as above

Chairman and Managing Director

MINUTES OF THE 63rd MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) ON ENVIRONMENTAL IMPACT ASSESSMENT (EIA) OF THERMAL POWER & COAL MINING PROJECTS

The 63rd Meeting of the reconstituted EAC (Thermal Power) was held on 29th & 30th August, 2016 in the Ministry of Environment, Forest & Climate Change at Teesta Meeting Hall, Vayu Wing, First Floor, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi. The following members were present:

1.	Shri Anil Kumar	-	Chairman
2.	Prof. C.R. Babu	-	Member
3.	Shri T.K. Dhar	-	Member
4.	Shri J.L. Mehta	-	Member
5.	Shri N.K. Verma	-	Member
6.	Shri A.K. Bansal	-	Member
7.	Shri G.S. Dang	-	Member
8.	Shri Shantanu Dixit	-	Member
9.	Dr. S. D. Attri	-	Member (Representative of IMD)
10.	Shri P. D. Siwal & N.S. Mondal	-	Member (Representative of CEA)
11.	Dr. S. Kerketta	-	Member Secretary

Dr. Ratnavel and Representatives of CPCB & WII could not be present.

Item No.1: CONFIRMATION OF THE MINUTES OF THE 60th EAC MEETING.

The Minutes of the 60th EAC (Thermal Power) meeting held on 27th July, 2016 were confirmed.

Item No. 2: CONSIDERATION OF PROJECTS

2.1 Setting up of 2x660 MW Coal Based Thermal Power Project near village Malwan, District Etah, Uttar Pradesh by M/s Jawaharpur Vidyut Utpadan Nigam Ltd (JVUNL) –regarding EC

(2.1.1) The Project Proponent (PP) along with their environmental consultant, M/s Desein Pvt. Ltd., New Delhi has made a presentation and inter-alia provided the following information:

(i) This project was earlier considered for EC by the EAC. Previously ToR was issued and EIA study carried out in 2010, earlier Public Hearing was held on 11.03.2011. The EAC recommended for EC in July, 2012, but MoEF did not issue EC & desired the proponent to submit concurrence of Ministry of Coal for diversion of coal from Chendipada coal block for the project so that further action can be taken by MoEF. Subsequently, the allocation of Chendipada coal block was cancelled vide order of Hon'ble Supreme Court/GoI. Later, Saharpur-Jamarpani coal block in Jharkhand was allotted on 13.08.2015. ToR was re-issued on 09.12.2015 by MoEF&CC. EIA report was updated as per fresh baseline data and fresh Public Hearing was held on 11.05.2016.

(2.4.3) *The EAC also recommended that the Ministry may look into the aspect of commissioning/ trial operations of the TPP by transporting coal through road before obtaining prior permission for the same.*

2.5 5x800 MW Super Critical Coal Based Yadadri Thermal Power Station at Village Veerlapalem, District Nalgonda, Telangana by M/s Telangana State Power Generation Corporation Ltd. (TSGENCO) – reg. EC.

(2.5.1) The proposal was earlier placed before the EAC in its 59th & 60th meetings held during 14th & 15th July, 2016 and 27th July, 2016, the minutes of which are as under:

Quote" The EAC noted that the background documents had not been received by some of the members, and where received, had been received only one day before or on the same day of EAC meeting, thus not giving an opportunity even to such Members to fully study the documents. As such, the EAC was not in a position to consider the case. The proposal was, therefore, **deferred.** However, to save time for this proposal's consideration in the next EAC meeting, the PP was provided a copy each of the two representations received by the EAC for a detailed reply to be submitted by the PP to the Ministry well before the next EAC meeting, for action in line with the decision recorded under Agenda item 3.1 of this meeting.

Accordingly, the proposal was placed before the EAC in the 60th meeting held on 27th July, 2016. *However, the EAC was informed that vide letter dt 26th July 2016 addressed to the Member Secretary, the PP has requested for* ***deferment*** *in view of preparations required to be made for the PMs visit to Telangana.* **"Unquote**

(2.5.2) The EAC inter-alia observed/recommended the following:

1. *Plagiarism, Irrelevant content, and absence of crucial site and plant specific analysis:*

EAC received several complaints about issues such as plagiarism and 'copy-paste' sections of the EIA. On examination, EAC found several such instances. Some examples are reproduced in below table.

Extracts from Final EIA report (July 2016 – Submitted to EAC)	**Extracts from Original Document**
Final EIA Report - Section 7.6 Risk assessment	Hazards Identification and Risk Assessment in Thermal Power Plant. by Ruchi Shrivastava and Praveen Patel published in International Journal of Engineering Research & Technology (IJERT) Volume 3, Issue 4, April 2014
Introduction *"The thermal power plant is a large electricity generation industry. It consist a number of process to generate electricity by use of fossil fuel. It also consist several major equipment and operations involve in its process. The purpose of hazard identification and risk assessment in thermal power plant is to*	Abstract *"The thermal power plant is a large electricity generation industry. It consist a number of process by mean to generate electricity by use of fossil fuel. It also consist several major equipment and operations involve in its process. The purpose of hazard identification and risk assessment in thermal power plant is to*

has merely stated that *"Irrigation Department will be informed ..... and will be requested to take necessary action...."* (Sld. 126 of the presentation). This clearly shows that as yet there is no firm commitment of the irrigation department to release minimum ecological flows. *Hence, a firm commitment from irrigation department needs to be obtained and the same should be included in the revised EIA.*

5. *Explore the feasibility of ACC instead of WCC.*

6. *Cumulative impact study of various industries in buffer zone has not been made with details on emission data, stack heights and distances from plant site.*

7. *The impact of fugitive emissions on ambient air quality, with prediction of PM_{10} and $PM_{2.5}$ has not been made from the sources such as Coal Handling Plant, Coal Storage yard, Ash Pond, lime handling and storage including gypsum that will be generated from FGD unit. Impact of fugitive emission due to transportation of material is also required to be assessed.*

8. *The coal linkage documents for imported and domestic coal cannot be considered as firm* coal linkage. *Imported coal MoU says non-enforceable and also doesn't specify the quality of coal and source of coal is also not specified. The MoC allocation/approval for domestic coal is required.*

9. *Coal analysis report from BHEL regarding use of blended coal.*

10. *EIA report as well as subsequent responses by PP indicate substantial confusion and lack of details regarding actual coal unloading and transportation arrangements. Some places it is mentioned that coal will be transported from two ports and some other places four ports are mentioned. Hence, complete and specific details regarding coal import ports and coal transportation routes need to be provided. Clear permissions from Railways and Port Authorities for imported coal should be obtained.*

11. *ToR 17, details of the mineralogical map from the State Geology Dept. Accordingly, MoC permission.*

12. *The PP submitted a detailed response to all the recommendations made by the Sub-Committee in its report on the Site Visit in the 50th EAC (T&C) meeting held during 28--29 January, 2016. The PP should provide action plans on the recommendations relating to restoration of degraded forest areas in the project area and creation of a permanent corpus fund for tribal welfare and adequate compensation for land loosers irrespective of their status besides best possible R&R package and extending social welfare schemes and healthcare systems for local communities.*

13. *As per the EIA report, the soil characteristics suggest that the land in the study area is a fertile land. Therefore, provision should be made to collect the top soil from the project area and preserve for raising plantation, etc.*

14. *Approximately, 75% and 25% areas are having under the category of forest and non-forest land, respectively. The forest land (including degraded) proposed to be included in the minimum 33% green belt should be treated as rejuvenation of forestland, instead otherwise may be.*

15. *The PP should give proper & detailed response along with an Action Plan in respect of queries raised during the Public Hearing along with CSR budgetary details provided during the stage of commissioning of the Project.*

16. *As the public hearing was valid and it was done very recently, the PP should publish public notices in the leading local newspapers, Gram Panchayats, Website of PP etc. along with the intimation that the public can send its comments if any, to the PP and also MoEF&CC on the revised EIA/EMP (which shall be available on Ministry's website, PP's website, Regional Office of SPCB, Gram Panchayat etc.) within 15 days after publication of the public notice.*

(2.5.3) The EAC suggested to PP to revise EIA in light of above mentioned observations. The proposal was accordingly, ***deferred.***

2.6 Expansion of 4x250 MW by addition of 4x600 MW Coal Based Thermal Power Plant at Tamnar, Tehsil Gharghoda, District Raigarh, Chhattisgarh by M/s Jindal Power Ltd. - reg. amendment of EC.

(2.6.1) The above proposal was last considered by the EAC in its 59th Meeting held during 14th -15th January, 2016, the minutes of which are as under: ***Quote "***

(2.6.1) The proposal of PP requesting for amendment of EC for change in location of ash pond was considered earlier by the EAC in its 50th Meeting held during 28th-29th January, 2016, the minutes of which are as under:

(2.7.1) The PP made a presentation and *inter-alia*, provided the following information:

(i) EC Clearance for the above expansion project was accorded on18.03.2011 for Units #1 & 2 and 04.11.2011 for Units # 3 & 4. Subsequently, all four units of 2,400 MW have been synchronized and three units have achieved COD. The requested amendment is for change in ash dyke location.

(ii) Initially, ash dyke for 4x600 MW was proposed to be constructed on an area of 491 Ha, comprising of 250 ha land near Dolessara village and another 241 ha land near Rodapali village. Details of both patches were included in the Draft and Final EIA report and both the patches of land were part of Public Hearing. In order to optimize the land requirement, JPL requested MoEF to consider only 241 ha of land near Rodapali village for proposed ash dyke. Accordingly, MoEF while granting EC to the project has approved 241 ha of land near Rodapali village for locating the ash pond for the expansion project. However, land near Rodapali village could not be acquired for construction of ash dyke, as the same became part of Gare Pelma Sector-II coal block.

(iii) Due to delay in acquisition of land for ash dyke, JPL requested MOEF to permit use of existing ash dyke of 4x250 MW for expansion project of 4x600 MW. Same was permitted by MoEF for period of 3 years i.e. till 09.01.2017. Now, JPL proposes to construct the ash dyke near Dolesara village on an area of 239 ha. This land has already undergone Public Hearing as a part of EIA for 4x 600 MW.

(iv) Regarding the land acquisition status of proposed new dyke area, in-principal approval for land acquisition has been received from State Industrial Promotion Board. Compensation of Rs. 57.36 crores has already been deposited with

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2.	Prof. C.R. Babu	-	Member
3.	Shri T.K. Dhar	-	Member
4.	Shri J.L. Mehta	-	Member
5.	Shri N.K. Verma	-	Member
6.	Shri A.K. Bansal	-	Member
7.	Shri G.S. Dang	-	Member
8.	Shri Shantanu Dixit	-	Member
9.	Dr. S. D. Attri	-	Member (Representative of IMD)
10.	Shri P. D. Siwal & N.S. Mondal	-	Member (Representative of CEA)
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Till now, 40% of civil work has been completed. 15% of Permanent Way works completed. Contract awarded for Overhead Electric traction work. Contract awarded for Signalling and Telecom work. It is expected that the works will be completed in about two year's time. HNPCL has obtained the permission from the East Coast Railway to unload 2 rakes a day in NTPC Simhadri railway siding. HNPCL has also obtained the permission from NTPC Simhadri for movement of about 4 rakes per day from Jaggayapalem to Duvvada section & also for HNPCL siding taking off from NTPC siding at Chainage after 19.0 km to HNPCL plant premises.

(iii) The present proposal is to seek permission of MOEF&CC to transport the coal by road from Bayyavaram Railway siding (45 km to TPP), Kantakapally Railway siding (63 km to TPP) and NTPC Ltd Simhadri, Railway siding (8.5 km to TPP) for a period of three years until the private railway siding of HNPCL is commissioned. The Traffic Impact Assessment Study due to the movement of HNPCL coal trucks was studied and it is observed that there is no significant impact with the addition of HNPCL trucks on the traffic of the studied roads.

(2.4.2) The EAC, in this meeting on 29-30th Aug 2016 noted that:-

(i) as intimated by the PP {ref para 2.4.1 (i) above}, one unit each had already been commissioned, in March 2016, and in July 2016. However, permission for road movement of coal was being sought only now after commissioning of the units, rather than before commissioning.

(ii) the PP was asked to provide data regarding quality of the coal being used/ to be used so that the environmental impact of coal movement could be considered.

(iii) PP was asked to inform steps proposed to be taken to comply with the MoEFCC notification regarding supply and use of coal with ash content < 34% in view of the high ash content of proposed coal sources and distance from the coalfield to the project site, and

(iv) the PP was asked to provide concurrence of the Railways for use of their sidings mentioned in para 2.4.1 (iii) above.

(2.4.3) The proposal was ***accordingly deferred*** *for want of the above information. The EAC also recommended that the Ministry may look into the aspect of commissioning/ trial operations of the TPP by transporting coal through road before obtaining prior permission for the same.*

2.5 5x800 MW Super Critical Coal Based Yadadri Thermal Power Station at Village Veerlapalem, District Nalgonda, Telangana by M/s Telangana State Power Generation Corporation Ltd. (TSGENCO) – reg. EC.

(2.5.1) The proposal was earlier placed before the EAC in its 59th & 60th meetings held during 14th & 15th July, 2016 and 27th July, 2016, the minutes of which are as under:

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proposal was, therefore, **deferred.** However, to save time for this proposal's consideration in the next EAC meeting, the PP was provided a copy each of the two representations received by the EAC for a detailed reply to be submitted by the PP to the Ministry well before the next EAC meeting, for action in line with the decision recorded under Agenda item 3.1 of this meeting.

Accordingly, the proposal was placed before the EAC in the 60th meeting held on 27th July, 2016. *However, the EAC was informed that vide letter dt 26th July 2016 addressed to the Member Secretary, the PP has requested for* ***deferment*** *in view of preparations required to be made for the PMs visit to Telangana.* **"Unquote**

(2.5.2) The EAC inter-alia observed/recommended the following:

1. Plagiarism, Irrelevant content, and absence of crucial site and plant specific analysis:

EAC received several complaints about issues such as plagiarism and 'copy-paste' sections of the EIA. On examination, EAC found several such instances. Some examples are reproduced in below table.

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"7.6.1 Plant Description *Thermal power plant is electricity generation plant which converts the fossil fuel stored energy to electrical energy by means of generating electricity. In other*	"III. PLANT DISCRIPTION *Thermal power plant is electricity generation plant which converts the fossil fuel stored energy to electrical energy by means of generating electricity. In other*

words, it is merely a chain of Energy conversion as follow: • *Chemical energy in the fuel is converted to Heat energy of steam.* • *Heat energy of steam is converted to Mechanical or rotating energy of a rotating wheel called Turbine.* • *The mechanical energy of Turbine is converted as Electrical Energy in a Generator."*	*words, it is merely a chain of Energy conversion as follow:* • *Chemical energy in the fuel is converted to Heat energy of steam.* • *Heat energy of steam is converted to Mechanical or rotating energy of a rotating wheel called Turbine.* • *The mechanical energy of Turbine is converted as Electrical Energy in a Generator."*
The plant description section mentions no project specific details at all.	
"***A. Coal Handling Plant*** *Coal transported to the plant by the rail line and carrier trucks. This coal is transfer from the underground bunker to crusher by series of conveyer belt. In coal crusher coal size reduced up to ¾" after that coal transfer to the boiler's coal bunker or coal yard. In the case of emergency the coal is fetch from coal yard. Coal feeder control the quantity of coal from coal bunker and send it to the ball mill or roll mill for pulverization process. Where coal crushed to the fine powder and mixed with preheated air come through the air from preheater. This process use for drying the coal and sends coal powder up to the burner of furnace. The rest of impure coal and rocks pass out to the bottom of mill and transfer to the clinker grinder then to the storage."*	"***A. Coal Handling Plant*** *Coal transported to the plant by the rail line and carrier trucks. This coal is transfer from the underground bunker to crusher by series of conveyer belt. In coal crusher coal size reduced up to ¾" after that coal transfer to the boiler's coal bunker or coal yard. In the case of emergency the coal is fetch from coal yard. Coal feeder control the quantity of coal from coal bunker and send it to the ball mill or roll mill for pulverization process. Where coal crushed to the fine powder and mixed with preheated air come through the air from preheater. This process use for drying the coal and sends coal powder up to the burner of furnace. The rest of impure coal and rocks pass out to the bottom of mill and transfer to the clinker grinder then to the storage."*
"***D. Turbine and Generator*** *The generated steam is passing through the super heater to the high pressure turbine. After driving the turbine a part of this steam sends to the H.P. heater 2 and left pass through the reheater then secondary super heater and regain its pressure to drive Intermediate turbine. Then the steam transfer to the H.P.H 2 and low pressure turbine. Then steam from low pressure turbine transfer to L.P.H 4-5-6 and condenser. In condenser steam is cooled by cooling water and then deaerator circulates it for steam generation. The three turbines used to drive one shaft which drives the rotor of the generator by mean to generate*	"***D. Turbine and Generator*** *The generated steam is passing through the super heater to the high pressure turbine. After driving the turbine a part of this steam sends to the H.P. heater 2 and left pass through the reheater then secondary super heater and regain its pressure to drive Intermediate turbine. Then the steam transfer to the H.P.H 2 and low pressure turbine. Then steam from low pressure turbine transfer to L.P.H 4-5-6 and condenser. In condenser steam is cooled by cooling water and then deaerator circulates it for steam generation. The three turbines used to drive one shaft which drives the rotor of the generator by mean to generate*

electricity. The various auxiliaries of turbine and generator is cooled by hydrogen gas and cooling oil."	*electricity. The various auxiliaries of turbine and generator is cooled by hydrogen gas and cooling oil."*
The text from the original paper refers to the acronyms (H.P.H 2 etc.) used in a diagram in the paper, which are absent / not relevant in the EIA report diagrams. Also sections B. D.M. Plant, C. Boiler, E. Switch Yard are also exact copy but have not been reproduced here for brevity.	
Section 7.6.3 HAZID *"Risk initiating event likelihood and consequences are assumed by taken reference of visited plant real activities. Risk Classification screening table is given below"*	IV RISK ASSESSMENT *"Risk initiating event likelihood and consequences are assumed by taken reference of visited plant real activities. Risk Classification screening table is given below"*
Table 7.80 :Risk Classification Screening	TABLE I: RISK CLASSIFICATION SCREENING TABLE
Table 7.81: Risk Classification	TABLE II: RISK CLASSIFICATION ASSOCIATED WITH TABLE I
Above tables are exact copy-paste of the same source cited above. They are not reproduced for brevity.	

In addition to above 'copy-paste' exercise, EAC also observed several **incorrect or irrelevant statements** in the Final EIA report. For example,

- Section 7.8, Occupational Health and Safety - "*As a **small business owner** one has certain rights and responsibilities regarding health and safety in the workplace."* (a project of 4000 MW cannot be called 'small business').
- Section 7.6.3.1 subheading Handling of heavy bags -"***Handling of heavy bags of the final products** may lead to occupational injuries like strains, sprains and cramps. This can be avoided by going for mechanical handling of the product or minimising the weight for manual handling."* (in case of this project final product is electricity !).

Further it is also observed that two important Sections of the EIA Report, namely 7.6 "Risk Assessment" and 7.7 "Disaster Management Plan" are almost entirely generic and contain hardly any site or project specific aspects. For example, though Tungapadu Vagu passes through the project site and EAC has directed specific measures for the protection of the same, there is no mention of Tungapadu Vagu in either section 7.6 or section 7.7. Instances such as possible effects of its flooding and /or embankment breach on the plant or impact of a disaster at plant on the Vagu and its environment / downstream, which should have been properly assessed in these two section, are completely missing.

Based on above observations, it is amply clear that several parts of the EIA/EMP have been prepared simply based on 'copy-paste' approach, without application of mind and considerations of site specific factors for crucial aspects such as Risk Assessment and Disaster Management. Above is a representative and not exhaustive list, indicating a casual approach towards the preparation of the EIA report on the Project Proponent's

part. *So, in light of the allegations of significant plagiarism and above mentioned observations, the MoEFCC may take necessary action on the relevant stakeholders.*

2. *Absence of FGD in plant layout, and consequent processes:*

   PP has contended that the plant will comply with MOEFCC notification dt. 7th December 2015 regarding stack emission, and that FGD will be installed. EAC asked PP about the location of FGD in the plant layout. In response to this query, PP admitted that FGD has not been included in the plant layout yet. Similarly, FGD and associated processes are also not covered in water balance, process flow and mass balance calculations.

   In light of this, the plant layout needs to be revised to include FGD and allied equipment / processes, and various plant processes need due consideration of issues like disposal of sludge in solid waste management, sulphur balance, water balance etc.

3. *Absence of crucial details and data regarding water withdrawal and availability:*

   In response to a query regarding specific water withdrawal point, PP informed that specific water withdrawal point has not been specified / considered in the EIA. In the absence of specific water withdrawal point, it would not be feasible to assess issues such as sustainability of water even in lean period, ecological impacts arising out of withdrawal of water, downstream uses and impact thereon etc. Further, the committee also observed that crucial data regarding water availability is quite dated and recent data, which is most relevant, has not been considered. For example, in Table 7 regarding monthly observed discharge at Pondugala G & D site, data only upto year 1999 – 2000 has been considered. *These deficiencies need to be addressed and adequate study of downstream impact of water withdrawal and water availability during lean period need to be included in the EIA.*

4. *Need for firm commitment from Irrigation Department to maintain minimum ecological flows in Tungapadu Vagu*

   Additional ToR#7 states that "To sustain the downstream ecology of the Tungapadu Vagu, the **Irrigation Department should release** minimum ecological flows from the reservoirs constructed in the upstream. (emphasis added). In response, the PP has merely stated that *"Irrigation Department will be informed ..... and will be requested to take necessary action...."* (Sld. 126 of the presentation). This clearly shows that as yet there is no firm commitment of the irrigation department to release minimum ecological flows. *Hence, a firm commitment from irrigation department needs to be obtained and the same should be included in the revised EIA.*

5. *Explore the feasibility of ACC instead of WCC.*

6. *Cumulative impact study of various industries in buffer zone has not been made with details on emission data, stack heights and distances from plant site.*

7. *The impact of fugitive emissions on ambient air quality, with prediction of PM_{10} and $PM_{2.5}$ has not been made from the sources such as Coal Handling Plant, Coal Storage yard, Ash Pond, lime handling and storage including gypsum that will be generated*

from FGD unit. Impact of fugitive emission due to transportation of material is also required to be assessed.

8. *The coal linkage documents for imported and domestic coal cannot be considered as firm* coal linkage. *Imported coal MoU says non-enforceable and also doesn't specify the quality of coal and source of coal is also not specified. The MoC allocation/approval for domestic coal is required.*

9. *Coal analysis report from BHEL regarding use of blended coal.*

10. *EIA report as well as subsequent responses by PP indicate substantial confusion and lack of details regarding actual coal unloading and transportation arrangements. Some places it is mentioned that coal will be transported from two ports and some other places four ports are mentioned. Hence, complete and specific details regarding coal import ports and coal transportation routes need to be provided. Clear permissions from Railways and Port Authorities for imported coal should be obtained.*

11. *ToR 17, details of the mineralogical map from the State Geology Dept. Accordingly, MoC permission.*

12. *The PP submitted a detailed response to all the recommendations made by the Sub-Committee in its report on the Site Visit in the 50th EAC (T&C) meeting held during 28–29 January, 2016. The PP should provide action plans on the recommendations relating to restoration of degraded forest areas in the project area and creation of a permanent corpus fund for tribal welfare and adequate compensation for land loosers irrespective of their status besides best possible R&R package and extending social welfare schemes and healthcare systems for local communities.*

13. *As per the EIA report, the soil characteristics suggest that the land in the study area is a fertile land. Therefore, provision should be made to collect the top soil from the project area and preserve for raising plantation, etc.*

14. *Approximately, 75% and 25% areas are having under the category of forest and non-forest land, respectively. The forest land (including degraded) proposed to be included in the minimum 33% green belt should be treated as rejuvenation of forestland, instead otherwise may be.*

15. *The PP should give proper & detailed response along with an Action Plan in respect of queries raised during the Public Hearing along with CSR budgetary details provided during the stage of commissioning of the Project.*

16. *In light of the major shortcomings as noted above, EIA/EMP needs to be redone (though currently used baseline data can be used) which needs to address above mentioned points, and public hearing is also to be conducted again based on the redone EIA/EMP.*

(2.5.3) The proposal was accordingly, ***deferred.***

2.6 Expansion of 4x250 MW by addition of 4x600 MW Coal Based Thermal Power Plant at Tamnar, Tehsil Gharghoda, District Raigarh, Chhattisgarh by M/s Jindal Power Ltd. - reg. amendment of EC.

Exhibit- 3

MINUTES OF THE 55th MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) ON ENVIRONMENTAL IMPACT ASSESSMENT (EIA) OF THERMAL POWER & COAL MINING PROJECTS

The 55th Meeting of the reconstituted EAC (Thermal Power) was held on 5th & 6th May, 2016 in the Ministry of Environment, Forest & Climate Change at Teesta Meeting Hall, First Floor, Vayu Wing, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi. The following members were present:

1. Shri Anil Kumar	-	Chairman
2. Prof. C.R. Babu	-	Member
3. Shri T.K. Dhar	-	Member
4. Shri N.K. Verma	-	Member
5. Shri J.L. Mehta	-	Member
6. Shri G.S. Dang	-	Member
7. Dr. S.D. Attri	-	Member (Representative of IMD)
8. Shri P.D. Siwal & N.S. Mondal	-	Member (Representative of CEA)
9. Dr. S.K. Paliwal	-	Member (Representative of CPCB)
10. Shri Manoj K Gangeya	-	Member Secretary

Shri A.K. Bansal, Shri Shantanu Dixit, Dr. Ratnavel and Representative of WII could not be present.

At the outset, the Committee welcomed Dr. Paliwal, the new representative of CPCB.

Item No.1: CONFIRMATION OF THE MINUTES OF THE 54th EAC (LAST) MEETING.

The Minutes of the 54th EAC (Thermal Power) meeting held on 31st March, 2016 were confirmed.

Item No. 2: CONSIDERATION OF PROJECTS

2.1 4,000 MW Ultra Mega Power Project (UMPP) near Village Kanwara, Taluk Katoriya, District Banka, Bihar by M/s Bihar Mega Power Limited (A wholly owned subsidiary of PFC Ltd.) - reg. ToR

(2.1.1) The Project Proponent (PP) along with their environmental Consultant, Desein Private Limited, New Delhi, made a presentation and inter-alia, provided the following information:

i. M/s Bihar Mega Power Limited (BMPL) was incorporated on 09.07.2015. The proposed UMPP will be based on Super-Critical Technology. The project will be developed through competitive bidding process as per guidelines issued under Section 63 of the Electricity Act, 2003 by Ministry of Power, Govt. of India. CEA considered potential 3 sites in consultation with the State Govt. and the above site has been recommended and accepted by Govt. of Bihar.

ii. The land requirement for the TPP will be about 2,440 acres, which is mainly uncultivable land and no forest land is involved. There is no ecologically sensitive area or wildlife within 15 km of the project site. About 200 households are expected to be affected. No major R&R issues are involved. The land requirement

(2.3.3) However, as requested by the PP for generating the baseline data (meteorological and air quality) of pre-monsoon season from March, 2016 the Committee agreed for the same at the PP's own cost" ***Unquote.***

(2.7.2) In this 55th meeting on 5th & 6th May 2016, the PP informed that they had submitted report on water availability for proposed withdrawal of water at a point in Chir River prepared by M/s. Nano System Consultant Pvt. Ltd., an empanelled consultant by Water Resources Department, Govt. of Bihar. Based on this report, the PP applied to Water Resources Department, Govt. of Jharkhand for allocation of 36.0 MCM of water on annual basis from Chir River, which the Department has conveyed concurrence for said withdrawal at Lat. 24° 56' 12.85" N & Long. 87° 08' 59" E through storage intervention of specified capacity at a location to store water for operation of the TPP during on Monsoon period i.e. 15th of October to 15th of June.

(2.7.3) The Committee noted that from this report, it is observed that no flow data on Chir River is reported. All values presented are based on computation taking secondary data on rain fall. The information was not available about total catchment area of Chir River with map and separate catchment before and after proposed abstraction point on Chir River. The details on land use in the catchment and the irrigation scheme details in catchment area with all existing abstraction points for different uses in the catchment area of the Chir River are also not available. The PP could also not give details as to whether Chir is tributary of Chandan River or directly flows in River Ganga. The route of two Rivers is also not given.

(2.7.4) In absence of above data, information & details the proposal is **deferred.** The following shall also be submitted by PP:

(i) Detailed reply to the issues raised by ERC, New Delhi
(ii) The PP shall get a clarification from WRD, Jharkhand regarding the requirement of NGRBA approval for the water drawl and if so, whether the same has been obtained.

(2.7.5) Further, the senior official (s) of the Water Resources Department, Govt. of Jharkhand and M/s. Nano System Consultant Pvt. Ltd., who prepared the said report shall also be present before the EAC, when the proposal is considered next.

2.8 3x800 MW Super-Critical TPP at Village Annupurna Khamar, Taluk Kamakhyanagar, District Dhenkenal, Odisha by M/s Odisha Thermal Power Corporation Ltd. – reg. extension of validity of ToR

(2.8.1) In this 55th meeting on 5th & 6th May 2016, the PP along with their environmental Consultant, Mecon Limited, Ranchi, made a presentation and inter-alia, provided the following information:

i. ToR for preparation of EIA/EMP for the above proposal was accorded on 05.03.2013 with a validity period of two years. The baseline data was generated during March-May, 2013 and the Public Hearing was conducted by the SPCB on 05.08.2014. The ToR validity is extended for one year i.e. till 04.03.2016 as per the Ministry's O.M. dated 08.10.2014.

ii. Due to the delay in allocation of coal block, the submission of final EIA/EMP is being delayed and hence, an application for further extension of validity of ToR by one year i.e. till 04.03.2017 has been made on 05.12.2015 and 27.01.2016.

(2.8.2) The Committee noted that as per the Ministry's O.M. dated 22.08.2014 regarding extension of validity of ToR, the PP needs to apply to the Ministry at least three months before the expiry of validity period, together with an updated Form-I, based on proper justification. Although the PP has submitted the application for extension of validity of ToR on 05.12.2015 (one day delay), the extension requested in the same was only till 05.03.2016. The PP has clarified that it was an inadvertent error and the intention was to request the extension till 04.03.2017. The same has also been clarified to the Ministry on 27.01.2016, in response to their direction. *The Committee was of the view that subject to condonation of delay by the Ministry in submission of the Application, the extension of validity of ToR may be agreed to.*

(2.8.3) The Committee also noted that as per the Ministry's O.M. dated 22.08.2014 and its amendment dated 07.11.2014, the date of Public Hearing and the primary data used in the preparation of EIA/EMP report should not be more than 3 years old for submission of the final EIA/EMP report to the Ministry. In the instant case, since the three years period of baseline data collected expires in May, 2016 and the PP may not be able to submit the final EIA/EMP report to the Ministry in time, *the EAC recommended that fresh baseline data for one season (non-monsoon) shall be collected and the EIA/EMP report shall be accordingly updated. Regarding fresh Public Hearing, the EAC opined that the same may not be required as the validity period of Public Hearing shall exist till the ToR validity of four years. However, the EAC recommended that public notices in the leading local newspapers, Gram Panchayats, Website of PP etc. should be published clearly summarizing the comparative baseline datas and along with the intimation that the public can send its comments if any to the PP and also MoEF&CC within 15 days/one month respectively after publication of the public notice.*

2.9 1X660 MW Margherita Coal Based TPP at Village Saleki NC & Lekhapani, Tehsil Makum Mouza, Margherita Revenue Circle, District Tinsukla, Assam by M/s Assam Power Generation Corpn. Ltd. – reg. extension of validity of ToR

(2.9.1) In this 55th meeting on 5th & 6th May 2016, the PP along with their environmental Consultant, Ramky Enviro Engineers Ltd., Hyderabad, made a presentation and inter-alia, provided the following information:

i. ToR for preparation of EIA/EMP for the above proposal was accorded on 15.03.2013 with a validity period of two years. The baseline data was generated during Summer, 2013. An amendment of ToR for revision of capacity to 1X660 MW super-critical TPP and the extension of validity till 14.03.2016 (3 years as per O.M. 08.10.2014) was accorded on 12.12.2014. The Public Hearing was conducted by the SPCB on 22.03.2015.

ii. Although the final EIA etc. was submitted online to MoEF&CC on 23.01.2016, the same has not been accepted for want of firm coal linkage and it was also instructed by MoEF&CC to apply for extension of validity of ToR. Accordingly, an application was submitted to the Ministry on 30.03.2016 for the extension of validity of ToR by further one year i.e. till 14.03.2017.

Exhibit- 4

MINUTES OF THE 45th MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) ON ENVIRONMENTAL IMPACT ASSESSMENT (EIA) OF THERMAL POWER & COAL MINING PROJECTS

The 45th Meeting of the reconstituted EAC (Thermal Power) was held on 29th -30th October, 2015 in the Ministry of Environment, Forest & Climate Change at Teesta Meeting Hall, Vayu Wing, First Floor, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi-110003. The following members were present:

1.	Prof. C.R. Babu	-	Vice Chairman (Acting Chairman)
2.	Shri T.K.Dhar	-	Member
3.	Shri J.L Mehta	-	Member
4.	Shri N.K. Verma	-	Member
5.	Shri A.K. Bansal	-	Member
6.	Shri G.S. Dang	-	Member
7.	Dr. S.D. Attri	-	Member (Representative of IMD)
8.	Dr. Asha Rajvanshi	-	Member (Representative of WII)
9.	Shri N.S. Mondal	-	Member (Representative of CEA)
10.	Shri B.B. Barman	-	Member Secretary

Dr. Ratnavel and Dr. S.S. Bala (Representative of CPCB) could not be present. List of other participants is at **Annexure–I.**

Item No.1: CONFIRMATION OF THE MINUTES OF THE 43rd EAC (LAST) MEETING.

No comments/observations were received and therefore, the Minutes of the 43rd EAC (Thermal Power) meeting held on 18th September, 2015 were confirmed.

Item No. 2: CONSIDERATION OF PROJECTS

2.1 Expansion of Ramagundam STPP by addition of 2x800 MW (Stage-IV, Telangana STPP, Phase-I) at Village & Mandal Ramagundam, District Karimnagar, Telangana by M/s. NTPC Ltd. - reg. EC

The Project Proponent (PP) along with their environmental Consultant, Vimta Labs, Hyderabad made a presentation and *inter-alia* provided the following information:

(i) ToR for carrying out EIA study and preparation of EMP for the above proposal (2x660 MW) was accorded by the Ministry on 16.09.2014 and an amendment of ToR for revision of capacity to 2x800 MW was accorded on 12.12.2014. The baseline data for EIA/EMP was collected during December, 2014-February, 2015. The final EIA/EMP report, after conducting Public Hearing on 23.05.2015, was submitted to the Ministry for consideration of environmental clearance.

(ii) The land requirement for the proposed TPP would be about 635 acres (main plant- about 235 acres and ash pond-about 400 acres) and will be accommodated within the existing Ramagundam Thermal Power Station. No R&R issues are involved. There are no ecologically sensitive areas such as Biosphere Reserve, National Park and Wildlife Sanctuary within a radius of 10 km from the site. River Godavari flows at a distance of about 4 km from the project site. The nearest railway station, Ramagundam is about 5 km from the plant which lies on the main Kazipet - Ballarshah broad gauge railway line

The PP made a presentation before the Committee. It was noted by the Committee that, Patratu Vidyut Utpadan Nigam Ltd. is a Joint Venture (JV) formed between NTPC Ltd. and Jharkhand Bijli Vitran Nigam Ltd. (JBVNL). However, the handing over and take over from the existing Authority, M/s. Patratu Energy Ltd. is not yet done. Further, the PP has no clear picture of the proposed site. The PP informed that ToR for 2X660 MW TPP was accorded for the same site on 09.05.2013 and the project will not come up. However, the Ministry was not informed of the same/requested for withdrawal of ToR and no representative from Patratu Energy Ltd. was present.

2. In view of above, the proposal was **deferred** and shall be considered only after submission of all the requisite information/documents. M/s. Patratu Energy Ltd. shall also request the Ministry for withdrawal of ToR accorded to 2x660 MW TPP as the above proposed TPP seems to be in the same location.

2.2 2x660 MW Supercritical imported coal based Thermal Power Plant at Villages Ottapidaram & Sillanatham, Taluk Ottapidaram, District Thoothukkudi, Tamil Nadu by M/s KU Thermal Power Pvt. Ltd.- reg. reconsideration of EC.

The proposal was earlier discussed in the 34th Meeting of the EAC (Thermal) held during 29th -30th April, 2015 the minutes of which are as under:

Quote "The PP along with their environmental consultant, Vimta Labs Ltd., Hyderabad made a presentation and inter-alia provided the following information-

1) The ToR for preparation of EIA/EMP report was accorded on 28.12.2011 and the validity was extended till 27.12.2015. The EIA/EMP report, after conducting Public Hearing, was submitted to the Ministry for consideration of environmental clearance.

2) The optimized land requirement for the project is 750 acres of which 725 acres has already been acquired. There are no R & R issues involved as there are no homestead outstees in the project area and the land has been purchased through mutual consent. The land is a dry & barren land. The Tahsildar of Ottapidaram Taluk certified that the project site does not come under ayacut area of any irrigation project. The project site does not involve any forest land, does not fall under the Kaveri Basin and is located at a distance of about 11 km from the sea. There is no grazing land and common property resources within the project site. There is no National Park, Sanctuary, Elephant/ Tiger Reserve (existing as well as proposed), migratory route / wildlife corridor, ecological sensitive location, archaeological monument, place of tourist interest and defense installation within 10 km radius of the project site. Chalikulam Reserve Forests is at a distance of 4.3 km, NW. The estimated cost of the project is Rs. 6600 Crores of which the cost towards environment protection measures is Rs. 418 Crores. The budget towards CSR is Rs. 20.25 Crores with a recurring budget of Rs.1.5 Crores per annum.

3) An application was filed with Ministry of Coal for domestic coal which is under process. Imported coal shall be used till indigenous coal is made available. FSA has been made with M/s PT Krishapusaka Sejati for providing 100% imported coal from Indonesia. The imported coal requirement is 3.25 MTPA. The EIA /EMP has been prepared for three different sources of coal like imported coal (Indonesia), blended coal (70% domestic + 30% imported) and domestic coal (MCL mines). Coal will be shipped to Thoothukudi Port and transported to rail network to Tattaparai, which is about 7 km from the project site. From Tattaparai, the coal will be transported by road/rail network to the plant.

4) High efficiency ESP will be installed to control particulate emissions < 50 mg/Nm3. One bi-flue stack of 275 m height and low NOx burners will be installed.

5) The base-line monitoring was done during Oct-Dec, 2011. The base line concentration for PM_{10}, $PM_{2.5}$ SO_2, NOx and Hg is in the range of 24.5-32.6 $\mu g/m^3$, 9.2-11.3 $\mu g/m^3$, 7.9- 9.9 $\mu g/m^3$ and < 0.01 $\mu g/m^3$ respectively The incremental concentration of PM, SO_2 and NOx in the worst case scenario is 0.53 $\mu g/m^3$, 38.64 $\mu g/m^3$ and 15.14 $\mu g/m^3$ respectively. Final GLC of all these will be within the limits prescribed in ambient air quality.

6) The water requirement of 60 m^3/h will be met from desalinated water supplied by M/s South Ganga Water Technologies Private Limited. Water supply agreement has been signed with South Ganga Waters Technologies Private Limited on 9.11.2011. Air Cooled Condensing (ACC) System and induced draft cooling towers for recirculation water are proposed. M/s South Ganga Water Technologies Pvt. Ltd. has obtained the CRZ clearance for the de-salination plant and the water shall be sourced from them. The ETP and STP will be based on Zero discharge concept. Marine impact is not applicable as the site is land locked.

7) Fly ash generated from the project will be supplied to the nearby cement manufacturers and 100% fly ash utilization will be done from 4th year onwards & in compliance with the fly ash utilization Notification. MOU has been signed on 19.11.2014 with My Home Industries for lifting of flyash. High Concentration Slurry Disposal (HCSD) system will be adopted for ash disposal. HDPE/LDPE liners will be provided for the ash pond in order to control any seepage from ash pond water into groundwater. Green belt will be developed of 50-100 m width all along the plant & ash pond.

8) Public hearing/public consultation for the project was conducted by Tamil Nadu Pollution Control Board on 25.07.2014. It was noted that the issues raised in the public hearing pertained to ground water pollution & kidney failure, welcoming the project due to more employment opportunities, providing employment to locals, installation of FGD, water scarcity infrastructure development of the area, CSR activities, non conducting of the PH at the project site etc. The Committee discussed the issues raised in Public Hearing and the reply of the Project Proponent.

2. After detailed deliberations, the Committee felt that area for the ash pond should be reduced. 25 acre which is yet to be acquired may be forgone. The plant shall be constructed in a way that surface water drainage is not altered and no ground water should be extracted. The Committee sought the following information which was either not available in the EIA/EMP report or was given wrong. Accordingly, the proposal was deferred.

(i) The ash content in blended coal is given more than the domestic coal. The Sulphur Content is given the same for both domestic and imported coal. These needs to be relooked into. The ash content has to be less than 34%.

(ii) The base-line monitoring was done during Oct-Dec, 2011, which is a rainy season in the area. Further, the data is more than three years old. Hence, the monitoring shall be re-done during non-monsoon season and cumulative impacts (including those of proposed industries, TPPs etc. in the area) shall be assessed. The data may corroborate with other data available with the existing industries and data of proposed projects. Prediction of air quality may be done after incorporating their data too. The Sulphur content used for prediction modeling shall be of the worst case scenario. List of other industries, both existing and proposed may be given. Protocol for ambient Hg monitoring may also be given.

(iii) Since there are variations in sea and land breeze during the day, the monitoring result may be reported 8 hrly.

(iv) This would change the data and EIA report too. However, the Committee felt that there is no need to carry out the Public Hearing again. To make the Public Aware, public notice/s in the leading newspapers including local language informing the public about the revised EIA/EMP with revised AAQ data etc. should be published. The comments from the public should be obtained giving a time period of minimum 15 days after the public notice is published. The revised EIA/EMP report should be placed on the website for public information.

(v) Breakup of the proposed project area specifying storage areas etc.

(vi) Coal storage area and quantity shall be re-looked into and submitted.

(vii) Action plan for establishment of railway siding for coal transportation. Alternatively, a separate study may be carried out for impact of transportation of coal by road in case of delay in commissioning of railway siding.

(viii) Details of proposed CDM benefits as mentioned in the EIA report.

(ix) Details of number of Salt pans including any closed one and the distance of nearest salt pan from the site. These may be given on a site map.

(x) Status of CRZ clearance and CMFRI approval for the Desalination plant of M/s South Ganga Water Technologies Pvt. Ltd. Ensure that impact on Marine ecology has been taken into account by the Supplier.

(xi) Alternate source of water in case of any breakdown or close down of the de-salination plant from where water will be obtained.

(xii) Details of COC for recirculation of water.

(xiii) Storm water management system.

(xiv) Commitment for non alteration of the surface drainage pattern of the area and for not extracting ground water.

(xv) In the EIA report, it is mentioned that fly ash shall be used as fertilizer. This may be corrected as usage of fly ash as fertilizer is not allowed.

(xvi) Clear and discrete fly ash utilization plan.

(xvii) Copies of tie up with cement plants.

(xviii) Optimized land area for ash pond.

(xix) Action plan for provision of drinking water to the locals. In the Public Hearing, it is mentioned that people in the project area are suffering from Kidney problem. Plan to take care of the same.

(xx) Population of fishermen in the area and affect on their livelihood.

(xxi) Revised detailed response and Action plan with budgetary provisions for issues raised in PH.

(xxii) Justification for the venue for holding PH at Collectorate instead of the project site.

(xxiii) Details of employment proposed for locals.

(xxiv) Area of the project is TB prone. Pretreatment of TB may be included in the CSR.

(xxv) Vision Document given in EIA report does not provide any vision.

All the discrepancies in the EIA/EMP report shall be rectified and the revised EIA/EMP incorporating the above shall be submitted along with the revised Form-1. ***Unquote"***

2. On submission of the above information, the proposal was placed before the EAC, wherein the PP made a presentation along with their environmental consultant, B S Envitech Pvt. Ltd., Secunderabad and inter-alia provided the following information. The committee noted that the proposal at present is only being considered based on 100 % imported coal due to lack of firm coal linkage for the domestic coal.

(i) The maximum sulphur and ash contents in the imported coal shall be 0.5% and 10% respectively. Baseline monitoring was redone during May-July, 2015 which is non rainy season. Cumulative Impact Assessment was also carried out and the resultant GLCs of the parameters will be within the NAAQS. Wind Rose showing 8 Hourly Wind Pattern are presented.

(ii) Public notices were published on 19-09-2015 in the local newspapers Tamil (Dinamani) and English (Indian Express)) about the Revised EIA/EMP with revised AAQ data for offering comments giving a time period of 15 days. The Revised Final EIA Reports were made available for comments of the public at District Collector Office, Thoothukudi, Village Panchayat–Sillanatham and Ottipidaram, District Industries, Thoothukudi, Tamil Nadu Pollution Control Board, Thoothukudi & Chennai and the website of KUTPPL for public information. No comments/objections/views of the Public were received.

(iii) The total project area is 750 acres of which the plant area, greenbelt and MGR & township are 440 acres, 160 acres and 150 acres respectively. 36 acres is earmarked only for Coal Storage and this area will accommodate coal of minimum 30 days requirement.

(iv) Coal is proposed to be received at Thoothukudi Port and then transported to Project site by Railway. The railway siding network of the Project would be connected at a suitable location on proposed new line connecting Thoothukudi to Madurai. Ministry of Railways have already sanctioned the railway line and is about to commence. The Right of Way for Railway line and Transmission corridor will be obtained after receipt of Environmental Clearance. In case, there is delay in completion of main railway line connecting Thoothukudi Port to Madhurai, an alternate study has been carried out by M/s Jeeva Management & Financial Consultant Private Limited for transport of coal by road. 600 Trucks/day (135 PCUs/Hr) will be required for road transportation of coal. The existing road comprises both rigid & flexible pavement and already the trucks are

plying on these roads. Coal movement to the TPP would be carried out with small repairs/ modifications, wherever required. The present traffic is 900 PCUs/Hr and the additional traffic due to the TPP would be 135 PCUs/Hr. Indian Road Congress (IRC) Norms for carrying capacity for 4 lane road is 3600 PCUs/Hr. The requisite environmental protection measures would be adopted.

(v) The nearest salt pan is at a distance of 7.8 km and from 7.8 km, the salt pans extend towards the sea in Eastern direction. Total number of operating salt pans in 10 km radius are 1075 (approx.) in an area of 730 ha.

(vi) The water requirement for the proposed TPP is 6.24 MLD and will be sourced from Desalination plant of South Ganga Water Technologies Private Limited (SGWTPL), which is operating 3 MLD Desalination plant. All necessary clearances including CRZ clearance vide letter dated 16.02.2012 was obtained for enhancing the capacity to 10 MLD. Marine Environmental Impact Assessment and Dispersion Study for the desalination plant prepared by Institute of Ocean Management, Anna University, Chennai was submitted to MoEF&CC while obtaining the CRZ clearance. Water reservoir in an area of 25 acres with a storage depth of 2 m (30 days requirement) is proposed to meet any contingency including shutdown of the Desalination plant. The project is based on Air Cooled Condenser System. COC considered for auxiliary cooling is 5.

(vii) Storm water network for collection of rain water was plotted on the plant layout and presented. Rain water harvesting pits are proposed. No perennial nallas are existing within the project site. Surface drainage pattern of the area will not be altered. No ground water extraction is proposed.

(viii) The fly ash generation with imported coal will be 0.2 MTPA. The PP has already entered into MoUs for off take of fly ash with M/s. My Home Industries Ltd. (0.33 MTPA max.) and M/s. Ramco Cements Ltd. (0.34 MTPA max.). Additionally the PP is also exploring the possibility of exporting fly ash and tie-up with the other industries. Unutilised ash will be disposed to the ash dyke proposed in an area of 100 acres. The PP will abide to the Fly Ash Utilisation Notification and shall utilised 100 % fly ash from 4th year.

(ix) Socio economic study was conducted by Dr. D V L N V Prasad Rao, Ex. Dy. Director, NIRD (QCI approved). Primary survey was conducted in villages. Need based assessment has been carried out to list out various needs of the villagers. The budget allotted for CSR activities is Rs. 20.25 crores in the areas of infrastructure, lively hood & training, health, education and sports. The recurring budget for CSR would be Rs. 1.5 crores per annum during the operational phase.

(x) Primary survey and data collected from Govt. hospital medical records of Ottapidaram Taluk reveals that there were no instances of Kidney ailments. It is proposed to provide R.O based potable drinking water facilities with a budget of Rs 195 lakhs and covering an area of 5 km radius from the date of start of construction of Power Plant. The same shall be implemented phase wise covering five villages in each year.

(xi) No Fishermen community/villages are located in 10 km radius (Source: Primary data). Two villages of Fishermen are located beyond 10 km radius towards E direction on coast of Bay of Bengal i.e. Thiruvaikulam-10.2 km-E and Ino-nagar–10.5 km-E. Discussions were held with the fishing community people. The PP has earmarked Rs.

125 Lakhs towards Fishermen Welfare Fund even though the fishermen villages are located beyond study area.

(xii) Revised detailed response and Action plan with budgetary provisions for issues raised in Public Hearing is presented. Public Hearing Venue was fixed by District Collector, Thoothukudi. Normal practice at Thoothukudi is to conduct all Public Hearings at District Collectorate Office. Details of two projects whose Public Hearings were conducted at collector office in the last one year are presented.

(xiii) The employment during peak construction and operation would be 2000 (peak) and 575 respectively. Preference would be given to the persons from whom lands have been acquired based on the suitability i.e. for skilled and unskilled jobs. Balance employment will be given to locals based on suitability and imparting training. Indirect employment would be provided to local people for utilizing their expertise in different areas like horticulture, site clearing (for power plant construction), etc.

(xiv) 75 TB Cases (Adult-Male-37, Female-33; Child-Male-4, Female-1) were reported from Ottapidaram Taluk (primary data). Based on Primary Survey, TB was mainly observed from persons involved in Sheep farming. As part of CSR activity, the PP will provide support to the TB prone individuals by financial support (Budget allotted-Rs 50 Lakhs) to the patient hospitalized for pre-treatment evaluation and treatment initiation. All costs will be borne by the PP for Pre-treatment evaluation which includes a thorough clinical evaluation. Patients identified/prone for TB will be provided regular treatment. The PP will provide awareness to locals to prevent TB through campaign and screening tests in association with NGOs working in the area of TB eradication.

3. As sought by the Committee, the PP submitted AAQ modeling for the seasons other than that of the revised EIA/EMP and letters from the Port & Railways regarding the feasibility of handling & transportation of coal. The cumulative AAQ modeling was carried out for the winter and summer seasons of 2015 and resultant GLCs of the parameters in all the seasons will be within the NAAQS. V.O. Chidambaranar (VOC) Port Trust vide letter dated 02.11.2015 confirmed that the necessary infrastructure for handling coal requirement of 6.05 MTPA for the proposed TPP will be available as the port is presently developing two deep draught coal berths with the capacity of 9.15 MTPA. The Southern Railway vide letter dated 05.11.2015 has stated that the proposed TPP is approximately 9 km from the existing railway station at Tattapparai which is in between Milavattan – Maniyachchi section. The proposed siding line can be taken off from Tattapparai which will be the nearest point. However, the Milavattan-Aruppukkottai-Madurai proposed new line work is in the initial stage and after finalizing the alignment of new line, the feasibility of connectivity of siding line can be studied.

4. The Committee has received two emails on the proposed TPP. The issues raised and the reply of PP to the same was examined. The Committee opined that these allegations are not factual.

5. Based on the information and clarifications provided by the Project Proponent and detailed discussions held on all the issues, the Committee recommended the project for environmental clearance subject to stipulation of the following additional specific conditions:

I. The PP shall make all efforts to commission the railway siding along with the TPP so that road transportation of coal can be avoided.

II. *The Sulphur and ash content of coal shall not exceed 0.5% and 10 % respectively. In case of variation of quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to the environmental clearance.*

III. *As committed, a minimum amount of Rs. 20.25 Crores shall be earmarked as capital cost for CSR activities and Rs.1.5 Crores/annum or the amount as per the CSR policy of GOI whichever is higher shall be earmarked as recurring cost per annum till the operation of the plant.*

IV. *Regular screening/check up of locals specifically for TB shall be done and requisite assistance for prevention/treatment shall be provided.*

2.3 2x270 MW Thermal Power Plant at Tehsil Goindwal Sahib, District Taran Taran, Punjab by M/s GVK Power (Goindwal Sahib) Ltd. -reg. amendment of EC.

The proposal was earlier discussed in the 18th Meeting of the EAC (Thermal) held during 31st July & 1st August, 2014 the minutes of which are as under:

"***Quote*** *1.* The PP along with their environmental consultant, Bhagavathi Ana Labs Pvt. Limited, Hyderabad made a presentation and provided the following information. EC for 2x300 MW (600 MW) for Goindwal Sahib TPP was accorded on 09.05.2008 and an amendment for revision of plant configuration to 2x270 MW was accorded. The validity of EC has been extended on 19.02.2014 for a further period of five years, i.e., till 08.05.2018. The unit 1 & 2 were synchronized to grid on 06-07-2013 and 04-03-2014 respectively. Greenbelt development activities are in progress with 50 m width all along the boundary and 100 m around the ash pond area. About Rs 3.43 Crores have been spent on greenbelt activities till date. Under CSR activities, houses were provided for economically weaker section at Manikhera Village.

2. As per the EC, coal will be sourced from captive coal mines in Tosikud North Sub-Block in Jharkhand by rail and that the Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5% and 34% respectively. However, as the mine development has been delayed due to reasons beyond control of the company, the PP proposes to use imported coal from South Africa (2.28 MTPA or 130.32 tph/unit at 100% PLF with 30% of maximum ash content and 0.8% of maximum Sulphur content) as a stop gap arrangement to commission the plant operations. It is also proposed that in case Ministry of Coal (MoC) allocates tapering coal linkage from CIL (177.38 tph/unit at 100% PLF with 37% of maximum ash content and 0.5% of maximum Sulphur content) through MOU as per the recommendations from Govt. of Punjab and SLC, the PP would like to use the same. Once the Tosikud North Sub-Block captive mine becomes operational, the coal from same will be used.

3. The imported coal will be sourced from Richards Bay, South Africa by sea route till Kandla port, Gujarat and then by trains to the coal storage yard at the plant complex. FSA has been signed on 12.06.2014 with M/s Coal and Oil Company DMCC, UAE for supply of 2.0 MTPA of imported Coal to the project. The PP has signed Coal Transportation Agreement on 11.12.2008 with ECR for development of private railway siding near Khadur Sahib railway station on Beas-Tarn Taran section. The Work Order for handling all shipment and delivering of imported coal to power plant site has been given to M/s Coastal Energy Pvt. Ltd. Meanwhile, tapering coal linkage recommendation has been made from the Chief Minister, Govt. of Punjab to the Minister of State for Power, Coal & NRE, GoI. SLC also recommended allotment of 2.4 million tonnes of tapering coal on MoU basis as the plant is ready for coal firing. The tapering coal from CIL will be transported through rail.

MINUTES OF THE 64TH MEETING OF RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE ON ENVIRONMENTAL IMPACT ASSESSMENT OF THERMAL POWER AND COAL MINE PROJECTS

The 64thMeeting of the reconstituted Expert Appraisal Committee (Thermal) was held on **January 7-8, 2013** at Scope Convention Centre, SCOPE Complex, Lodhi Road, New Delhi. The members present were:

1.	Shri V.P. Raja	-	Chairman
2.	Dr. C.R. Babu	-	Vice-Chairman
3.	Shri T.K. Dhar	-	Member
4.	Shri J.L. Mehta	-	Member
5.	Dr. G.S. Roonwal	-	Member
6.	Shri M.S. Puri	-	Member
7.	Dr. S.D. Attri	-	Member
8.	Dr. Saroj	-	Member Secretary

Member Secretary, CPCB; Dr. CBS Dutt, Dr. K.K.S. Bhatia and Shri V.B. Mathur were absent.

In attendance: Sh. W. Bharat Singh, Deputy Director, MoEF.

The deliberations held and the decisions taken are as under:

ITEM No.1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING.

The minutes of the 62ndMeeting held during December 4, 2012 were confirmed with some minor changes noticed/suggested.

2.1 500 MW (Stage-IV) Coal Based Feroz Gandhi Unchahar Thermal Power Project of M/s NTPC Ltd. at Raebareli District, in Uttar Pradesh- reg. Environmental Clearance.

The proposal is for consideration for environmental clearance. The project proponent made a presentation along with its consultant M/s Vimta Labs Ltd., Hyderabad and provided following information:

The proposal is for expansion by addition of 500 MW (Stage-IV) Coal Based Feroz Gandhi Unchahar Thermal Power Project at Raebareli District, in Uttar Pradesh. The total existing capacity of the power plant is 1050 MW, consisting of Stage-I (2x210 MW); Stage-II (2x210 MW) &Stage-III (1x210 MW). No additional land is required for the expansion by addition of Stage-IV (1x500 MW). The same will be accommodated within available land, which is about

2.11 2x660 MW Coal Based Thermal Power Plant of M/s Arissan Power Ltd. at villages Domuhan & Jamua, in District Banka, in Bihar- reg. Extension of validity of TOR.

M/s Arissan Power Ltd. was prescribed TOR for its 2x660 MW Coal Based Thermal Power Plant at villages Domuhan & Jamua, in District Banka, in Bihar on 08.12.2010. M/s Arissan Power Ltd. has now informed that Draft EIA/EMP report has been submitted to Bihar SPCB for Public Hearing and the process will take some time for finalization of the Draft EIA/EMP report. It was also informed that public hearing has now been fixed on 23.01.2013 and advertisement issued in newspapers on 21.12.2012. M/s Arissan Power Ltd. has therefore requested the Ministry for extension of validity of TOR for one year.

The matter was placed before the Committee for its consideration.

The Ministry representative informed that validity for TOR for two years is for conduct of public hearing and as public hearing is already fixed on 23.01.2013, the necessity for extension of TOR does not seem to arise.

The Committee however noted the request and decided that the request can be agreed as per policy decision taken by the Ministry and as may be so necessary.

DATE: 08.01.2013

2.12 2x600 MW Sub Critical TPP of M/s Chettinad Power Corpn. Pvt. Ltd. at Tharangambadi Taluk, Nagapattinam District, Tamil Nadu- reg. review of Environmental Clearance in accordance with the Order of the NGT.

M/s Chettinad Power Corpn. Pvt. Ltd. (M/s CPCPL) proposed to set up 2x600 MW Sub Critical TPP of M/s Chettinad Power Corpn. Pvt. Ltd. at Tharangambadi Taluk, Nagapattinam District, Tamil Nadu. The project was accorded environmental clearance on 20.01.2011.

2. Subsequently, an Appeal was filed by Shri Ossie Fernandes, Co-Convener, Coastal Action Network (an NGO), before the National Green Tribunal (NGT) seeking to assail the environmental clearance accorded to M/s CPCPL. The Hon'ble National Green Tribunal in its Order dated 30.05.2012 directed the Ministry of Environment & Forests (MoEF) to upload the updated EIA report (both terrestrial and marine ecology) and thereafter appraise the project along with objections / suggestions received on updated EIA Report. That the recommendation of the EAC/MoEF shall be placed in public domain.

3. In pursuance of the Order of the Hon'ble NGT, dated 30.05.2011, the Expert Appraisal Committee (Thermal Power) on receipt of request from M/s CPCPL first deliberated the matter in the 58th Meeting held during October 8-9, 2012 followed by deliberations in the 60th& 62nd Meetings of the Committee held during November 5-6, 2012; and December 4, 2012 respectively and thereafter in this 64th Meeting.

4. The Committee in the 58th Meeting while deliberating the issue, read out the Order of the NGT and the operative part of the judgment was flagged point-wise for analysis of the fulfillment required to be carried out by the project proponent for the purpose to review the environmental clearance.

5. *In the said 58th Meeting, the Committee noted few inadequacy of information, and had decided that the project proponent shall submit para-wise response /remarks/ information on the order of the NGT. It was also decided that the response shall be submitted in the form of an affidavit duly signed by the Competent Authority in the organization and notarized. It was further also decided that the response/ remarks/ information shall be accompanied by a Board Resolution certifying that the signatory of the affidavit providing response/remarks/information submitted is authorized to sign. Accordingly, the matter was deferred.*

6. On receipt of the response / affidavit as stated above, the matter was again taken up in the 60th Meeting held during November 5-6, 2012. In the said meeting the Committee was informed of a letter received from NGO viz. Coastal Action Network, wherein it was informed of the non-availability of revised EIA report by M/s Chettinad Power Corpn. Pvt. Ltd. and seeking time for enabling them to give their response to the revised EIA report.

7. The Committee had advised M/s Chettinad Power Corpn Pvt. Ltd. to provide a copy of the revised EIA report to the appellant immediately. It was decided that objections from the appellant be awaited but in the meantime the process may continue and the proponent be heard while also following substantial and procedural due process.

8. Deliberations on the observation of the NGT was again deliberated in the 60th Meeting and M/s Chettinad Power Corpn. Pvt. Ltd. informed that as a proactive measure they had appointed CAS in Marine Biology, Annamalai University for carrying out a study on Olive Ridley Turtle nesting based on primary and secondary data and conservative measures have been recommended. That they have also obtained a report on conservative measures from Central Marine Fisheries Research Institute, Chennai related to power projects. That a copy of the study report has been submitted to Wild Life Warden / District Forest Officer, Nagapattinam for their perusal and implementation of mitigative measures throughout the project period.

9. M/s Chettinad Power Corpn. Pvt. Ltd. also made a presentation point-wise on the directions of the NGT Order and noted the submissions made and decided that they shall submit evidence on record of documents having been served to Coastal Action Network. It was further decided that the matter can be taken up in the next meeting after giving a last opportunity to the appellant /Coastal Action Network) for its response.

10. The matter was again taken up on 62nd Meeting of EAC and the Ministry representative informed the Committee of another written representation dated 14.11.2012 from the NGO viz. Coastal Action Network seeking further time of 30 days from receipt of the report for submitting their objections/suggestions.

11. The Committee read out the contents of the representation and after detailed deliberations decided that in the spirit of natural justice time need to be given as requested and the matter can be taken up in the next meeting. The matter was accordingly deferred.

12. The matter was again taken up and Coastal Action Network which represented by Shri Rahul Chaudhury, Advocate.

13. Para-wise comments / response to the representation made by Coastal Action Network earlier circulated prior to the meeting to the members was taken up and a copy provided to the representative of Coastal Action Network. The Committee observed that Coastal Action Network may send their views within one week.

14. Representative of Coastal Action Network briefly narrated the objections raised by them and submitted in writing to the Ministry.

15. M/s Chettinad Power Corpn. Pvt. Ltd. also stated that the issue raised by Coastal Action Network are same as contested in the National Green Tribunal. M/s Chettinad Power Corpn. Pvt. Ltd. while making their presentation also revisited the issues earlier discussed regarding compliance of NGT Order point-wise and made a brief presentation.

The chronology of significant issues and deliberations made in the 58th, 60th and 62nd Meetings were summed up as under:

EAC Meeting (Thermal Power)	**Observations / Remarks**
58th Meeting held during October 8-9, 2012	• To provide primary and secondary data on Olive Ridley Turtle – vetted by Competent Authority • To submit compliance with NGT Order in form of an

	affidavit duly notorised.
60th Meeting held during November 5-6, 2012.	• Deliberations on submission made in form of affidavit. • Discussions on Turtle nesting and its conservation actin plan • Discussion on letter seeking non accessability of updated EIA Report on MoEF website • Directions to provide hard copy to Coastal Action Network
62nd Meeting held on December 4, 2012.	• Discussion on proof of serving copy of updated EIA Report to Coastal Action Network • Decision to give more time to Coastal Action Network to submit objections on updated EIA Report

M/s Chettinad Power Corpn. Pvt. Ltd. also summed up that objections of Coastal Action Network divided into four headings as under:

- Pre-amble;
- Inconsistency between EIA reports;
- Certain TOR conditions not complied; and
- Miscellaneous & Conclusion

It was stated that they have dealt the entire objections ofCoastal Action Network(CAN) in detail and submitted in the reply affidavit in order to have transparency. The point wise objection of Coastal Action Network and the response made by M/s Chettinad Power Corpn. Pvt. Ltd. (M/s CPCPL)and presented before the Committee is tabulated as under:

Responses of M/s CPCPL to CAN – Preamble

Para Ref	CAN Objection	CPCPL Response
1.1	Issuance of TOR by MoEF	Factual - No Comments
1.2	Wide variation between EIA Reports (April 2010, September 2010 and Updated August 2012)	No Variation . Inclusion are only to – a)Public Consultation related matters b)Approvals obtained after the PH c)PM 2.5 data (PM 2.5 measuring instrument was not available)

		d)To comply NGT order
1.3	With deficient EIA Report public consultation process took place and Environmental Clearance issued	Wrong allegation . No such defects would cause environmental threat as concluded by NGT.
1.4	Order passed by NGT against the appeal No.12/2011	Factual -No Comments
1.5	Additional particulars included in another EIA Report (Aug 2010) and the same was never brought to the knowledge of public consultation process.	Wrong allegation. No another EIA report was made. Only an update of point no.3 as per NGT order. Additionally point no.2 also updated.
1.6	Want of further study as reviewed in 58th EAC meeting	Fully Complied and reviewed in 60th EAC meeting
1.7	Contents of Sep 2010 & Aug 2012 EIA Reports never brought to the notice of public	Wrong allegation . Improper comparison of EIA reports made by CAN by adopting incorrect particulars
1.8	April 2010 EIA report did not include Rapid Marine EIA/EMP	Wrong allegation. Rapid marine EIA report prepared and submitted before public hearing was overlooked by CAN.
	When Comprehensive Marine EIA report carries three reason data and Terrestrial EIA report carries only one season data	Comprehensive marine EIA report prepared as per the CRZ notification 2011 and Terrestrial EIA report prepared as per EIA notification 2006
	281 pages Comprehensive Marine EIA Report added as Annexure in Aug 2012 EIA Report	Comprehensive marine EIA report prepared and submitted for CRZ Clearance and included in updated EIA report as per NGT suggestion.
1.9	No integration of various studies carried out by different agencies and no change in the EMP cost of Rs 320 crores	Studies were done through third party consultants and integrated to EIA report. No Change in environmental protection measures, hence there is no change in EMP budget.

Responses of M/s CPCPL to CAN – Comparision of EIA reports

Para Ref	CAN Objection	CPCPL Response

2.1	Additionally 3 Annexure included in August 2012 report – more than 50% annexure details not shared to public.	Repetition of previous objection as in Para 1.2,1.5 and 1.7
2.2	Lands not fully identified for acquisition. Due to R&R issues acquisition of private and Government land not completed	Wrong allegation. Wrong figures projected by CAN lands are without habitation, hence no R & R issues
2.3	Sea water temperature 22.5 deg C in the Apr 2010 EIA Report, 28 -30 deg C in August 2012 – manipulated?	Typographical error corrected in Terrestrial EIA report. Temperature correctly mentioned in the Executive summary annexed with Terrestrial EIA report and Marine EIA Reports.
2.4	• Allegation on Fly ash & bottom Ash utilization • Bottom Ash calculation seems OK • Fly ash disposal solid consistency of 100% water requirement for disposal – 60m3/hr of water for 60 MT of Ash • EIA report envisages 100% loss by evaporation. • EIA report not addressed overflow of ash pond	Wrong calculation. While mixing 60m3/hr of water with 60MT of ash Solid percentage is 47.4 % only. Pumps are available to transfer solid of 65%. Such 60 m3/hr of water requirement is only on emergency situations. Fly Ash will not be sent to Ash Dyke all 24 x 365 hrs except during emergency. Ash dyke will have 1 meter free board at all times. Hence there will not be any overflow.
2.5	Details of SWRO and Cooling water discharge , Guard Pond design, Adequacy of Guard Pond for temperature correction not given in EIA Report. No possibility of sludge generation from SWRO Plant	The scheme of waste water discharge viz., SWRO and Cooling water discharge explained in the EIA Report. All other design details will be decided at the time finalization of design and engineering. The pre-treatment of sea water will generate sludge as indicated in water balance diagram as in fig 2.4 of EIA report.
2.6	Change to double flue gas RCC Structure will result in change in exit velocity	Typographical error in one place corrected in updated EIA report. Hence there will not be change in exit velocity from chimney.

2.7	Surface water and ground water quality not figuring in Apr 2010 EIA Report	Wrong observation by CAN. Details available in Apr 2010 EIA Report
2.8	Temperature profile across cooling circuit outlet, blended SWRO reject & cooling circuit water in guard pond and outlet of guard pond not provided. Basis and adequacy of guard pond volume and modus-operandi of collection & conveyance to outfall tank has also been not addressed. Impact of outfall temperature in the context highlighted by various institutions not addressed?	Baseless allegation. Design details will be fine tuned and decided at the time of finalization of design & engineering. Statutory norm of discharge water temperature, not exceeding 5 deg C above ambient temperature will be ensured through the design of cooling water system. No threat will be caused to marine environment especially Olive Ridely turtle.
2.9	Comprehensive Marine EIA Report (281 pages) , Report on turtle not made available to public.	Repetition of para 1.2,1.5 and 1.7. Made only to mislead the EAC/MoEF.

Responses of CPCPL to CAN – TOR related

Para Ref	CAN Objection	CPCPL Response
3.1	Non-acquisition of balance private lands and government lands are due to R & R issue. TOR condition XVI not complied	Complete wrong interpretation of TOR conditions. Baseless allegations. Repetition of para 2.2 in order to mislead EAC/MoEF.
3.2	Seawater temperature of 28 deg C considered for marine impact study, discharge of waste water was proposed at 8.4 m depth instead of 12 - 15 m and impact on marine ecology due to various activities not studied. Thereby TOR additional condition (g) not complied	Input recognized by the model is the difference in temperature i.e., between discharge and ambient temperature which is 5 deg C. Hence ambient temperature can't be considered for impact study . Discharge at 8.4 m was based on the CORMIX model study to have least impact and it is the depth at 750 m from shore, where discharge is proposed. TOR is only guideline and the appropriate depth is decided on the basis of prevailing dispersion characteristics and practical requirements

		derived from the outcome of the study.
3.3	For 70:30 ratio of import and Indian coal , less than 34 % Ash content -Indian coal not available. Impact of use of 100 % Indian coal not considered	Source for supply of 30 % ash content -Indian coal available. CPCPL proposes to use only 100 % imported coal. 70 :30 ratio considered for worst case scenario. As per EC any change in coal specification shall be subject to approval of MoEF. 100 % Indian coal usage not at all envisaged.
3.4	Source of water for construction. TOR condition XXIV not complied	Wrong allegation by CAN. TOR condition fully complied. C4 & C10 of EIA report envisages non-usage of ground water for construction purpose. However, EC condition provides, "No ground water will be used for construction purpose". Sea water after treatment through desalination plant will be used for construction purpose.
3.5	Confirmation not given from Cement Industry for 100 % Utilization of Fly Ash generated. If the group's demand is 1.25 MTPA of Fly Ash, CPCPL may generate 1.25 MTPA of Fly Ash using 100 % Indian Coal, thereby TOR condition XXIX not complied.	Baseless allegation raised by CAN. Entire group cement plant requirement is 1.25 MTPA. Worst case scenario of Fly ash generation using 70:30 imported and Indian Coal will be 0.48 MTPA. Imported Coal generation of Fly ash will only be 0.24 MTPA as per EIA report. At no point of time 100% Indian Coal is envisaged for the project. The project is aimed at using 100% imported Coal. However, from one of our group cement plant in Ariyalur itself has given 0.365 MTPA
3.6(a)	Major lacunae in amending the EMP. Removal of details of treatment of run-off from peripheral drains of Ash Pond from Apr 2010 Report – not justified. Budget not provided.	Baseless allegations. ToR Condition fully complied with. Impact of Ash dyke and mitigation already available in chapter 4 of 4.3.8.1 of the EIA reports (draft, final& updated). Hence no overflow as envisaged by CAN.
3.6(b)	Chapter 8 of EIA report (Aug'2012) declared various budgets to the tune of 11.99 Crores, based on socio-economic survey & out-sourced Institutional studies. Not detailed in various annexure.	Not Necessary to reflect or repeat the same in Annexure, having stated in Chapter 8 of the EIA report. Baseless claim made by CAN only to mislead the EAC/MoEF.
3.6(c)	Annexure XX of EIA,	Complete failure of understanding the

	provides capital budget of 1.57 Crs and recurring expenditure of 0.595 Crs. Same not integrated to main EIA at Table 6.4 of EMP	purpose of the study by CAN, A baseless allegation. The said Annexure XX deals with need based study done to comply requirement arose subsequent to PH proceedings, a voluntary act of Project Proponent. The study carries separate budget. Such budget outlay not relevant to be included in EMP cost as detailed in Table 6.4.
3.6(d)	No budget for socio-economic study is stated in Annexure XIX	Baseless allegation. Misleading facts. Budget provided in Table 8.5 of EIA reports.
3.6(e)	No capital investment have been addressed for marine EIA report – establishment for guard pond, marine outfall structure (with collection system, conveyance system, diffusers, pipeline etc.,) dredging, accidental coal spill control devices etc. Additional pages of 281 is included as Comprehensive Marine EIA report ?	Wrong assumption. Project costs includes costs towards marine facilities like establishment for guard pond, marine outfall structure (with collection system, conveyance system, diffusers, pipeline etc.,) dredging, accidental coal spill control devices etc. Regular maintenance costs will take care environmental protection during operation, hence no separate EMP cost for marine is shown. Additional pages of 281 is only inclusion of Comprehensive Marine EIA report instead of marine Executive summary.
3.6(f)	No budget for mitigation measures for hydro-geological study	Wrong assumption. Such costs were all included in project costs itself. It is self explanatory, without which project cannot suffice.
3.6(g)	Emission value of < 50 mg/Nm3 will be ensured by ESP as against the available norms of CPCB/SPCB. Such is the position, project consultant or ESP supplier must have vetted and should have given such low emission could not be met. Call for review of ESP scheme.	Such low emission levels have been met by existing ESP scheme, which are proven case through our own captive power plants used in the cement factories. CAN has made baseless allegation without any justification.
3.7	Status of pending litigation mentioned as "None" in ToR compliance	As no case was pending subsequent to disposal of Appeal 12/2011 and during uploading of updated EIA report (Aug 2012). Hence no amendment required.

3.8	Other alternative for coal movement through rail/common jetty not considered. TNMB condition &ToR additional Condition (f) not complied with.	All possibilities explored and MoEF cleared the separate jetty. TNMB condition is only to avoid any overlapping of port boundary, on the other hand CAN misconstrues the same and seeks to present an incorrect picture.

Responses of CPCPL to CAN – Issues & Conclusions

Para Ref	Can Objection	CPCPL Response
4.1	Majority of information were not made available to public.	Repetition and reliance placed on para 1.2,1.5 1 and 1.7, which was already proven baseless, not sustainable on facts or law and devoid of merits.
4.2	No involvement of Project Proponent, DPR Consultants, EIA Consulting Organization and several sub-contracted specialists agencies in the preparation of EIA Reports	Without involvement of the Project Proponent and different consulting agencies, the EIA reports meeting the requirement as prescribed in the EIA Notification, could not have been met , which was already appraised by EAC/MoEF before granting EC. However NGT also appreciated the reports, except pointing out certain errors as curable and ruled out as unwarranted the recalling of PH process.
4.3	Not able to access the uploaded EIA Report, no pop up or scroll message to highlight updation	Such excuse is devoid of merit as it is accessible by other persons except CAN, though CAN is a frequent visitor of MoEF website.
4.4	In EAC 58th meeting, certain information/data have been sought	Project Proponent has fully complied with the directions of EAC and the same has been thoroughly examined by EAC in its 60th EAC meeting.
4.5	EIA Report submitted is not a quality report and to be scrutinized by a limited member committee	AS pointed in the previous responses there were no such technical gaps alleged by CAN. It is made only to mislead EAC/MoEF. However, EAC/MoEF cannot seek to justify or remedy what it has failed in Appeal before Hon'ble NGT. CAN shall not be allowed to interpret in its own way the NGT order. The Hon'ble NGT have disposed of the Appeal 12/2011 filed by CAN stating that CAN has failed to point out any Environmental threat in its Appeal. Now it

		cannot seek such remedy again before EAC/MoEF.

The Committee deliberated the issues flagged by Coastal Action Network and the response made by M/s Chettinad Power Corpn. Pvt. Ltd. and recommended that the environmental clearance earlier recommended stands upheld as no purpose in particular environmental and social concerns could be solved by further delaying in implementation of the project. The Committee howeverrecommended that few additional conditions earlier not prescribed as under shall be added viz:

i) The project proponent shall setup a good laboratory, well equipped with advance instruments for long term monitoring of marine and terrestrial water, soil and air quality and take mitigative measures if there are any negative impacts;

ii) Sea water quality shall be continuously monitored for salinity, turbidity and temperature at selective sites across the impacted zone in order to protect and preserve the marine flora and fauna of the region. Sea water quality and sediments shall also be monitored at selective sites across the impacted zone including estuarine waters. The monitoring data should be uploaded on the website of the company and also be submitted to Regional Office (RO) of the Ministry every six months.

iii) Regeneration of degraded mangroves (if any in the study area) shall be taken through institutes such as Annamalai University.

iv) To minimize entrapment of small marine flora and fauna, state of the art low aperture intake screens with high effectiveness for impingement and entrainment and fishnet around intake shall be installed.

v) Fish catch along the impacted zone of sea should be monitored periodically by the Department of Fisheries, Government of Tamil Nadu.

vi) The waste stream from the FGD should be disposed in an environmentally sound and safe manner.

vii) Marginalized section of society particularly traditional fishermen communities shall be identified based on 2011 population census data and socio-economic study of the various strata of families such as those carrying out subsistence fishing, commercial fishing etc. shall be carried out and impact on their livelihoods shall be assessed separately. Accordingly, sustainable welfare scheme/measures shall be undertaken and status of implementation shall be submitted to the R.O. of the Ministry.

viii) A study on the identification of local employable youth shall be immediately carried out and training shall be imparted for eventual employment in the project itself. The status implementation shall be submitted to the R.O. of the Ministry from time to time.

The Committee further recommended that the Ministry shall take early action in compliance to the directions contained in the Order issued by the NGT.

2.13 4000 MW Chhattisgarh UMPP of M/s Akaltara Power Ltd.(nowM/s Chhattisgarh Surguja Power Ltd.)nearSalka/ Khamaria, District Sarguja, in Chhattisgarh- reg. Extension of validity of TOR.

M/s Akaltara Power Ltd.was prescribed TOR for its 4000 MW Chhattisgarh UMPP near Salka/ Khamaria, District Sarguja, in Chhattisgarh on 30.03.2009.

M/s Akaltara Power Ltd. (name changed to M/s Chhattisgarh Surguja Power Ltd.) has informed that Pindrakhi & Puta Parogia Coal Blocks in Hasdeo-Arand allocated to this UMPP were categorized as "No-Go Area", thereby delaying the various activities including Public Hearing for the project.

M/s Chhattisgarh Surguja Power Ltd. also informed that REIA was submitted to SPCB, Raipur for conduct of public hearing vide their letter dated 01.02.2010, which has not progressed also till date. M/s Chhattisgarh Surguja Power Ltd. has therefore requested that the validity period of TOR be extended for a further period of four years.

The Committee noted the TOR earlier prescribed in 2009 may be inadequate additional TOR points may be prescribed. It was also noted that in doing so it shall be ensured that for such a large project a comprehensive EIA need to be carried out and placed for public consultation. The Committee accordingly recommended that validity of TOR extension can be given for one year in accordance with the existing policy decision.

2.14 2x600 MW Mahan Super Thermal Power Project of M/s Essar Power (M.P.) Ltd at Singrauli Tehsil, District Sidhi in Madhya Pradesh- Change in source of Coal reg.

M/s Essar Power (M.P.) Ltd. was accorded environmental clearance for its 1800 MW (3x600 MW) Mahan Super Thermal Power Project ,in Singrauli Tehsil, in District Sidhi, in Madhya Pradesh on 20.04.2007. The power project is linked to Mahan Coal Block.