

MINUTES OF THE 57th MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) ON ENVIRONMENTAL IMPACT ASSESSMENT (EIA) OF THERMAL POWER & COAL MINING PROJECTS

The 57th Meeting of the reconstituted EAC (Thermal Power) was held on 16th -17th June, 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. Shri Shantanu Dixit - Member
8. Dr. S.D. Attri - Member (Representative of IMD)
9. Shri P.D. Siwal
& N.S. Mondal - Member (Representative of CEA)
10. Dr. S.K. Paliwal - Member (Representative of CPCB)
11. Dr. S. Kerketta - Member Secretary

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

At the outset, the Committee welcomed the new Member Secretary, Dr. S. Kerketta. The services of the earlier Member Secretary, Shri Manoj K Gangeya were duly acknowledged by the Committee.

Item No.1: CONFIRMATION OF THE MINUTES OF THE 55th EAC (LAST) MEETING.

The Minutes of the 55th EAC (Thermal Power) meeting held on 5th-6th May, 2016 were confirmed.

Item No. 2: CONSIDERATION OF PROJECTS

2.1 4x660 MW, Stage-I, Barethi Super Thermal Power Project near Village Barethi, Tehsil Rajnagar, District Chhatarpur, Madhya Pradesh by M/s NTPC Ltd.- reg. reconsideration for EC

(2.1.1) The proposal was appraised by the EAC earlier in its 36th Meeting held during 19th-20th May, 2015, the minutes of which are as under:

Quote“ The Project Proponent (PP) along with their environmental consultant, EMTRC Consultants Pvt. Ltd., Delhi made a presentation and inter-alia provided the following information:

- (i) ToR for carrying out EIA study for Barethi STPP (6x660 MW) was accorded by the Ministry initially on 09.09.2010, which was valid till 08.09.2013. Public Hearing was conducted on 17.06.2011 and the final EIA report was submitted to the Ministry on 18.10.2011. However, the same was not considered by the Ministry due to non-availability of firm coal linkage. Accordingly, the Project Proponent (PP) had applied

for fresh ToR for revised capacity of 2,640 (4x660) MW, Stage-I and also requested for exemption of Public Hearing (PH).

- (ii) ToR for carrying out EIA study for Barethi STPP of 2,640 (4x660) MW was accorded on 25.07.2014 with PH exemption as there was no change in the location of project site and no TPP or any other industry came up within 10 km radius from the project site, etc. during the intervening period. In accordance with the TOR, based on one season (November 2014 - January 2015) baseline data, an EIA report has been submitted to MoEF&CC to accord EC.
- (iii) Govt. of Madhya Pradesh vide letter dated 31.03.2010 have accorded in-principle commitment for availability of about 3,400 acres of land for the project. However, so far physical possession of 2,900 acres land has been acquired by NTPC as the land requirement for Stage-I is 2,110 acres. It was earlier proposed to put up 2x660 MW as Stage- II for which 790 acres of land was required hence, the land was taken into possession. However now, as of now, no expansion is envisaged due to shortage of water therefore, Stage-II has not been envisaged. There is no ecologically sensitive area such as Biosphere Reserve, National Park and Wildlife Sanctuary within a radius of 10 km from the project site. Panna Tiger Reserve and World Heritage Site “Khajuraho Temple” are located at a distance of about 12 km and 23.4 km respectively. The estimated Project Cost is Rs. 17,820.98 Crores and proposed Environmental Protection Cost is Rs. 1,348.98 Crores.
- (iv) The coal requirement of 12.0 MTPA will be met from Banai coal mine block of Mand Raigarh in the State of Chhattisgarh allotted to NTPC by Ministry of Coal (MoC) vide letter dated 31.03.2015. The Sulphur and Ash contents in Coal would be in the range of 0.4-0.5% and 40-43%, respectively. Coal is proposed to be transported from coal mine block to the project site by Indian railway system rakes. The rakes will be unloaded at the wagon tippers.
- (v) High efficiency ESP will be installed to control particulate emissions to <math>< 50 \text{ mg/Nm}^3</math>. Two twin-flue stacks of 275 m height each will be installed. Baseline Environmental monitoring has been conducted from November, 2014 to January, 2015. The base line concentration for PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x is in the range of 40.0-56.0 $\mu\text{g/m}^3$, 12.0-20.0 $\mu\text{g/m}^3$, 4.0-5.6 $\mu\text{g/m}^3$ and 9.0 – 14.2 $\mu\text{g/m}^3$, respectively. The maximum incremental concentration of PM, SO_2 and NO_x would be 0.94 $\mu\text{g/m}^3$, 36.60 $\mu\text{g/m}^3$ and 11.97 $\mu\text{g/m}^3$, respectively. Final GLC of all these will be within the prescribed AAQ limits.
- (vi) The water requirement of 80 MCM will be sourced from Shyamari and Majhgaon dams. Water Resource Department (WRD), Government of Madhya Pradesh (GoMP) vide letter dated 03.09.2012 has allocated 40 MCM water each from Shyamari and Majhgaon dam. The dams are under construction phase by MP State Government. Water requirement has been optimized with designed COC of 5.0 in line with CEA norms. The total make up water during operation is 9,805 m^3/h (i.e. 2.96 $\text{m}^3/\text{h}/\text{MW}$ which is as per the CEA norms). The treated wastewater quality will conform to prescribed standards and shall be used in greenbelt development in and around project site to the maximum extent. Closed cycle cooling system will be installed to avoid hot water discharge for the protection of aquatic life. Zero Liquid Discharge (ZLD) system with maximum recycle/reuse of water will be implemented and thereby small quantity of make-up water shall be drawn. Therefore, the impact of water

discharge on ecology will be insignificant. Marine impact is not applicable as the site is land locked.

- (vii) All the required measures to protect the natural surface drainage pattern of the area shall be taken. To study the existing drainage pattern and to plan the drainage of plant without disturbing the natural pattern, "Area Drainage Study" is already done by IIT, Roorkee and recommendations of the study are being followed in planning/execution of the project.
- (viii) Ash utilization/management shall be done as per the fly ash utilization Notification dated 03.11.2009. It is estimated that about 15,000 TPD i.e. about 4.8 MTPA of ash shall be generated. In order to assess the ash utilization potential in the vicinity of proposed power plant, a market survey was undertaken by NTPC through M/s Bhagavathi Ana Labs Pvt. Limited. The survey covered cement plants located within 300 km, brick manufacturing plants and major construction activities within the 100 km radius of Barethi STPP. There are 13 cement units within 300 km from the proposed power plant. Apart from this, 16 more cement plants are proposed/upcoming within 300 km radius from the proposed power plants which will also require fly ash. The total requirement by all the existing Cement & Ready Mix Concrete (RMC) units is estimated to be about 3.5 MTPA. Based on this study, it is proposed to utilize 3.5 MTPA, 0.1 MTPA and 1.2 MTPA of fly ash for Cement & RMC sector, Fly ash bricks and Roads & Highway Embankment & others, respectively.
- (ix) A detailed Socio-economic Study for the affected area has been conducted through G.B. Pant Social Science Institute, Allahabad. From the study it is observed that the basic amenities and infrastructural facilities like education, health, electrification, banking and road networking are only accessible to a few sections and small areas of rural society in the project area. Special emphasis for village developmental work may be given to the Sandni and Barethi villages. The number of Project Affected Persons (PAPs) for Sandni and Barethi villages are 565 & 485 respectively where as at Basari and Satna, the number of PAPs is 33 & 12, respectively. The Project Affected villages (PAVs) having more than 50% of the total PAPs concentrations shall be taken up on first priority.
- (x) A comprehensive Community Development Plan has been formulated (including Education, Health, Infrastructural works, Drinking water facility, training for income generating schemes, etc.) in consultation with the stakeholders and District Administration under approved R&R plan for Barethi project. The R&R Package, formulated after discussions in the Village Development Advisory Committee (VDAC) meetings were deliberated and finalized after modifications, in the meeting of the Committee of Secretaries, Govt. of Madhya Pradesh (GoMP). A budget of Rs. 185.64 crores is earmarked for R&R and Rs. 97.995 crores for CSR/community development.
- (xi) Public Hearing/Public Consultation for the project was conducted by Madhya Pradesh Pollution Control Board on 17.06.2011. It was noted that the issues raised in the PH pertained to Permanent Employment for educated young generation, Environmental Pollution & measures for its abatement, Hospital in Village Barethi, Free electricity to the residents of the area, provisions of Rehabilitation & Resettlement & compensations, Construction of road from Panna-Chhattarpur to NTPC plant avoiding agricultural land, etc. The Committee discussed the issues raised in the PH and the reply of the PP.

2. After detailed deliberations, the Committee opined that the mandatory firm coal linkage is not available for the project as the EC and FC for the coal block are not available. Hence, firm coal linkage is required and accordingly, the EIA/EMP shall be revised. As there is no Stage- II, land requirement for the project shall be considered as only 2,110 acres. The PP has not proposed 33% of the area as green belt and hence, the same needs to be done. Since, the Panna Tiger Reserve is at a distance of 12 km and a contiguous forest exists, the recommendation/comments of NBWL may be obtained. The ash pond shall be shifted 150 m away from the natural drain and thick green belt shall be developed in between. Since, Khajuraho Temple is made of red stone, long term effect on this also needs to be assessed, mainly due to SPM (Carbon) & SO_x. As the following information was not available in the EIA/EMP report, and PP could also not provide at the time of presentation, the proposal was **deferred**-
- I. Firm coal linkage i.e. including the EC and FC of coal block. Accordingly, the EIA/EMP shall be revised.
 - II. An authenticated map from CWLW clearly showing the boundary of the project and the Panna Tiger Reserve including the boundary of its eco-sensitive zone.
 - III. Considering the scale of the project and proximity with the Panna Tiger Reserve and the contiguous forest, NBWL clearance/comments shall be obtained. The Ministry may also seek comments from its wildlife department.
 - IV. Details of compensation given for different categories of land.
 - V. Action plan for green belt development in 33% of the area.
 - VI. Detailed action plan for the development of railway siding and alternate plan, if any.
 - VII. Commitment for using washed coal so as to reduce the ash content to <34%.
 - VIII. Sensitive receptor base-line data for "Khajuraho Temple". A separate study may be conducted to ascertain any effects on Khajuraho Temple due to emissions from TPP.
 - IX. Details of effluent treatment and discharge especially during the rainy season be prepared.
 - X. The area drainage/hydro-geology study of IIT, Roorkee shall be circulated to all the members and shall be presented before the EAC by the concerned Officials of IIT, Roorkee in the next meeting.
 - XI. Detailed action plan for rainwater harvesting.
 - XII. As agreed, the ash pond shall be shifted 150 m away from the natural drain and thick green belt shall be developed in between. The same shall be clearly indicated on map and submitted.
 - XIII. MoUs for fly ash utilization and Report available on fly ash utilization potential of the area shall be submitted.
 - XIV. Details on health survey records and sources of endemic diseases in the area.

- XV. *Reply to the issues raised by EIA Resource & Response Centre (ERC), New Delhi.*
- XVI. *Detailed land use pattern of the project area as per the revenue record.*
- XVII. *Justification for having proposal of a big ash pond area when so many users are available to use fly ash.*
- XVIII. *Impact on water withdrawal on downstream users.*
- XIX. *All the studies given in ToRs may be completed and made as a part of EIA/EMP report.*
” Unquote

(2.1.2) The reply to above information sought by EAC, was submitted by the PP to MoEF&CC and accordingly, the proposal is again placed before the EAC in this 57th meeting on 16.06.2016, wherein the PP along with their environmental consultant, EMTRC Consultants Pvt. Ltd., Delhi made a presentation and inter-alia, provided the following information:

- (i) Ministry of Coal (MoC) on 18.03.2016 has accorded in-principle approval for grant of bridge linkage for the proposed project from Coal India Ltd. (CIL). CIL vide its O.M. dated 09.05.2016 has accorded in-principle approval for grant of bridge linkage from Korba/Raigarh field (80%) & Korea Rewa coal field (20%) of SECL for the proposed project. MoEF&CC on 07.12.2015, has notified new Emission Standards for TPPs. Based on these standards i.e. PM (30 mg/Nm³), SO₂ (100 mg/Nm³) and NO_x (100 mg/Nm³), EIA report has been modified. The impacts on air quality, after complying with new emission standards are very much lower than that predicted earlier.
- (ii) The project site is located beyond 10 km from the Buffer Zone of Panna Tiger Reserve. Further, Eco Sensitive Zone (ESZ) is approximately 12 km from the project boundary/stack. In this regard, a map showing the Buffer Zone of Panna Tiger Reserve duly signed and stamped by Field Director of Panna Tiger Reserve is submitted. NBWL clearance/comments is required, only if, the project falls within 10 km area of Wildlife Sanctuary.
- (iii) The coal transportation shall be by Rail. Railway siding planned from Lalitpur-Khajuraho section of NC Railways, involves construction of 2 km of approach siding up to plant. Feasibility study for rail transportation already done and NC railways have approved the report. Completion of the construction of the rail line shall be in synchronization with the commissioning of the power plant.
- (iv) NTPC is committed to use coal with ash content not more than 34%. Contract document with CIL will include necessary clause in this regard.
- (v) M/s NEERI, Nagpur conducted the impact assessment study on Khajuraho Temple due to the proposed Barethi STPP in the year 2012-13. Based on the observation, it was concluded that there will be no adverse impact anticipated on Khajuraho temple located at about 23.8 km away from the project site. Archaeological Survey of India (ASI), Delhi vide letter dated 13.06.2016 issued NOC for construction of Barethi STPP, Stage-I (4x660 MW). The Barethi site may be considered as Greenfield site as the District Trade and Industries Centre, Chhattarpur, Govt. of

M.P. vide its letter dated 02.07.2014 has confirmed that no industrial establishment is located within the 10 km radius of study area.

- (vi) An independent plant effluent drainage system will be made so that effluents do not mix with storm water. Storm water will be collected and stored in the reservoir. This will reduce the fresh water drawl from dams. Project is designed with 2.5 m³/MW-h water consumption and Zero Liquid Discharge concept (in normal operating condition). During, heavy rains some treated water from the CMB, meeting the discharge standards, shall be discharged into nearby nallah. Quality of treated water shall be monitored using online instruments.
 - (vii) Entire runoff from the paved and unpaved areas will be collected in a water reservoir through drains. Roof top rainwater will be collected and will be taken to the recharge pits to recharge underground table.
 - (viii) The proposed ash pond is to be constructed keeping 150 m away from the natural nallah and areas available between the proposed ash dyke and nallah will be developed as thick green belt. A map is shown in this regard.
 - (ix) A copy of the Market Survey report for ash utilization carried out by Bhagavathi Ana Labs Private Limited, Hyderabad was submitted. A letter confirmation from Birla Corporation Limited, Diamond Cement, Prism Cement and Reliance Cement for lifting of ash has been obtained. An ash utilization plan has been prepared.
 - (x) Chief Medical and Health Officer, District Chhattarpur (Madhya Pradesh) vide letter dated 11.06.2015 indicated that in the present scenario, people in the nearby villages suffer mostly from fever, cough & cold, pneumonia, diarrhea & diseases related to ENT (Ear, Nose, Throat) and Eye.
 - (xi) A budget of Rs. 99.09 Crores is earmarked for CSR/community development.
- (2.1.3) The PP informed that the present proposal is for Stage-I and Stage-II will also be located at the same site of Stage-I. The EAC noted that the site is in an ecological sensitive area. For example, it is close to Khajuraho Temples and Ken Crocodile Sanctuary, which are about 20-30 km from the TPP site. It is about 12 km from Panna Tiger Reserve. There is extensive network of surface drainage system consisting of 1st, 2nd, 3rd and 4th order streams all of which find their way into Ken River.
- (2.1.4) The EAC also recommended that the surface drainage channels shall be preserved and the conditions stipulated by the ASI vide letter dated 13.06.2016 shall be strictly complied.
- (2.1.5) *After detailed deliberations, the EAC sought the following information/documents and accordingly, **deferred** the proposal.*
- i. Revised plant layout with 33% green belt of the project area, with focus towards Khajurao, and Panna Tiger Reserve.*
 - ii. The plantation must be started immediately along the periphery areas, so that some cover will be available by the time the plant becomes operational.*
 - iii. Detailed Storm water management system.*
 - iv. MoUs for the entire 2.9 MTPA of fly ash proposed to be utilized for manufacture of cement*

- v. *Low lying areas are not to be developed using fly ash.*
- vi. *Detailed sulphur balance. AAQ modeling for all the four seasons shall be carried out and submitted.*
- vii. *Impact of fugitive emissions.*
- viii. *Impact on the aquatic flora and fauna*
- ix. *The details regarding water drawl, including reported plan that only excess water during monsoon will be stored in the dam and utilised for the plant and that there will be no change or diversion in non-monsoon flows, or in the downstream water withdrawal during non-monsoon period and impact of the same etc. In this connection, the EAC also pointed out that the PP's contention that there will be no impact on Ken river is not tenable, since both the dams that will cater to the project's water requirement are fed by the Ken river.*
- x. *Considering the scale of the project and proximity with the Panna Tiger Reserve and the contiguous forest, NBWL clearance/comments shall be obtained as already desired earlier by the EAC. The Ministry may also seek comments from its wildlife department.*
- xi. *Since the site is ecologically sensitive, the EAC recommended that no further expansion of the project may be permitted in future at the site.*
- xii. *As already desired earlier by the EAC, all the required measures to protect the natural surface drainage pattern of the area shall be taken.*
- xiii. *Hydrogeological study needs to be elaborated.*
- xiv. *A detailed map of the area showing streams, tributaries, dams, Ken river etc.*

2.2 3x660 MW (Stage-I) Sipat Super Thermal Power Project at District Bilaspur, Chhattisgarh by M/s. NTPC Ltd. - reg. continuation of transportation of coal by open wagons

(2.2.1) The proposal was appraised by the EAC earlier in its 54th Meeting held on 31st March, 2016, the minutes of which are as under:

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

- i. MoEF accorded EC for Sipat STPP Stage-I on 22.02.1999 for a total capacity of 2,000 MW (4x500 MW). However, due to change in configuration of project from 4x500 MW to 3x660 MW, MoEF issued an amendment to EC on 30.04.2002. The EC stipulates that coal should be transported by captive MGR in closed wagons to avoid dust pollution. Further, due to change in source of coal & coal quality and for waiver of condition of coal transportation in closed wagons, NTPC approached to MoEF&CC vide letter dtd. 22.05.2013 for amendment in EC.
- ii. Based on above submission of NTPC, the EAC in its meeting held on 09.01.2014 had recommended transportation of coal in open wagons with suitable measures instead of closed wagons, depending on the availability. MoEF&CC issued an amendment to EC vide its letter dated 08.09.2014 which stipulates that transportation of coal by open wagons with suitable measures instead of closed wagons, depending upon the availability. However, permission for transportation of coal by open wagons is accorded only for one year with the stipulation that within one year, NTPC shall come out with a plan of carrying coal in a cleaner way. This was communicated to NTPC vide Ministry's letter dated 08.09.2014.

- iii. In compliance to the above said conditions, an Action Plan for Cleaner Way of Transportation of Coal by Rail was submitted to MoEF&CC vide letter dated 14.03.2016. Coal is transported in line with the Action Plan with regular monitoring. The Action Plan specifies methods to control fugitive dust emissions and the responsibilities of parties involved in the coal transportation system, environmental control measures, monitoring parameters and corrective actions proposed to be taken in the event of any failures.
- iv. It is general practice in India to transport the coal in open wagons (BOBRN/BOXN) with suitable measures for control of fugitive dust emissions. The same has been envisaged in Sipat STPP also. Further, coal is loaded into open BOBR/BOXN moving wagons from overhead coal silos at mine end. At the power plant end, when BOBR wagon is unloaded in underground track hoppers, the bottom of wagon opens up to empty the coal into underground hoppers. While in BOXN wagon, the coal is unloaded by wagon tippler. Therefore, there are technological constraints in loading & unloading of coal in closed wagons. Coal transportation from mine pit to plant (about 42 km distance) takes about an hour and adequate sprinkling of water is ensured on top surface of coal.
- v. NTPC is already working on the said action plan for carrying coal in a cleaner way. MoEF&CC is requested to permit the transportation of coal in open wagons adopting the measures to counter dust problem in line with the action plan submitted. "Press Release dated: 01.03.2016 by Ministry of Railways" with respect to transportation of coal by Indian Railways inter-alia, states that, transportation of coal is predominantly done in BOXN and BOBR type of wagons.
- vi. The PP showed a video recording of the water spraying system on the open railway wagons carrying coal over a distance of about 40 km from the source to TPP of NTPC.

(2.7.2) After detailed deliberations, the Committee:-

- (a) noted that the EC condition for carrying coal in closed wagons had been stipulated as far back as in April, 2002. NTPC, however, had been carrying coal all these years, and was continuing to carry coal even now, in open wagons. This was thus a violation of the EC condition of April, 2002.
- (b) noted that NTPC had been asked (vide the Ministry's letter dated 08.9.2014) to submit the action plan referred to in para 2.7.1 (ii) above within one year (i.e. within September, 2015), but NTPC had done so only in March 2016, thus again being in violation of the EC condition of September, 2014. In addition, the action plan for carrying coal in a cleaner way, submitted by NTPC, lists out only standard measures, and does not refer to anything out of the ordinary.

(2.7.3) The Committee was unable to appreciate why the condition of coal transportation in closed wagons had been stipulated in the 2002 EC, if according to NTPC, this was not the "general practice". The Committee was also unable to appreciate why the matter had not been taken up by NTPC with the MoEF&CC in 2002 itself. The Committee was therefore of the view that before it could consider NTPC's present request for transportation of coal in open wagons instead of closed wagons, it would be necessary to look at why this condition had been stipulated. The Committee, therefore, requested the Ministry to examine the earlier records so that some light could be shed on this. Member Secretary EAC was requested

to inform the Committee of the outcome of such an examination when this agenda item was next taken up for EAC's consideration.

(2.7.4) Similarly, the Member Secretary, EAC was requested to examine the EAC minutes of 09.01.14, as well as the subsequent processing till the issue of EC amendment vide the Ministry's letter of 08.9.2014, so that it could be better understood why the EAC had recommended NTPC's request for transportation of coal in open wagons, but this recommendation was only for a limited period of one year. Member Secretary EAC was requested to inform the Committee of the outcome of such an examination when this agenda item was next taken up for EAC's consideration.

(2.7.5) The Committee requested NTPC to check up its earlier records also. The proposal was accordingly **deferred** till the earlier position is clarified.

(2.7.6) Regarding the water spraying system on the open railway wagons carrying coal over a distance of about 40 km from the source to TPP of NTPC, the PP was advised that since water shortage in the area is acute, particularly in dry months and is just not available even for irrigation in adequate amounts, PP should study alternative methodologies/ technologies being utilized including abroad, to prevent coal dust blow from moving open wagons carrying coal, if any. The results of this study should be submitted within one year.

(2.7.7) Further, to study the impact due to coal transportation, the PP shall carry out AAQ monitoring as well as short & long term health survey of people in villages/habitation within one km on either side of the railway track starting from coal source to TPP. Such studies should be carried out every six months, and the reports should thereafter be submitted to MoEF&CC.

(2.7.8) Detailed reply to the issues raised by the ERC in their letter dated 30.03.2016”
Unquote.

(2.2.2) The reply to above information sought by EAC, was submitted by the PP to MOEF&CC and accordingly, the proposal is again placed before the EAC in this 57th meeting on 16.06.2016, wherein the PP presented their reply.

(2.2.3) *The EAC noted that the PP has agreed to carry out the studies recommended in paras (2.7.6) and (2.7.7) of the previous minutes, reproduced above.*

(2.2.4) *Regarding the EAC's attempt (reference Para 2.7.3 and 2.7.4 of the previous minutes, reproduced above) to make a more informed decision on the PP's present request for coal transportation in open wagons on a continuous basis instead of for only one year, both the PP, as well as the Member Secretary EAC intimated that the previous available records did not reveal why the coal transportation decision had been taken in the manner as recorded in the EC. The EAC therefore recommended that the Ministry may take decision on the PP's present request as the EAC had already earlier recommended coal transportation in open wagons with suitable measures instead of closed wagons.*

(2.2.5) *In this connection, the EAC noted that the EC condition of 08.09.2014 asking NTPC to submit an action for carrying coal in a cleaner way (reference earlier minutes Para 2.7.1 (ii), read with Para 2.7.2 (b), both reproduced above) still remained to be complied with, and was pending.*

(2.2.6) *The EAC recommended that the Ministry may take a decision on the appropriate action that needs to be taken on the two violations noted in Para 2.7.2 (a) and (b) of the previous minutes, reproduced above.*

2.3 2x600 MW Coal Based Singareni Thermal Power Plant at Pegadapalli village, Jaipur Mandal, District Adilabad, Telangana by M/s Singareni Collieries Company Ltd.- reg. amendment of EC

(2.3.1) The PP along with their environmental consultant, EMTRC Consultants Pvt. Ltd., Delhi made a presentation and inter-alia, provided the following information:

(i) EC for the above TPP was accorded on 27.10.2010. The construction is in progress and the power generation has already commenced on trail basis for Unit-1 from 01.06.2016 onwards. The PP applied to MoEF&CC requesting for the following amendments in the EC:

- Permitting SCCL to utilize coal from its own mines as mentioned in EC letter, till the desired coal output is achieved from the linkage mine i.e. Naini coal block.
- Permitting transportation of coal by road from its mines to the TPP at least for a period of two years or till the rail transport system is made operative.

(ii) MoC vide letter dated 22.04.2016 has accorded bridge linkage to the above TPP from SCCL own mines for a period of three years from the date of allotment of Naini coal block. The traffic impact assessment due to transportation of coal by road has been studied and a report on the same has been submitted.

(2.3.2) *Based on the information and clarifications provided, the detailed discussion that ensued and considering the status/progress of the project, the EAC recommended for **amendment of EC to source coal from the SCCL mines and temporary permission for transportation of coal by road for a period of two years** subject to the following additional conditions:*

- i) Prior requisite approvals from the concerned State Authorities, especially the PWD, shall be obtained.*
- ii) The transportation by road shall be through mechanically covered trucks to the extent feasible, else through trucks covered by tarpaulin.*
- iii) Periodic maintenance of the road shall be done by the project proponent at its own expenses and shall also facilitate the traffic control on the road in consultation with the State Govt. Adequate road safety measures shall be provided for pedestrians.*
- iv) Avenue plantation of 2/3 rows along the road shall be carried out by the project proponent at its own expenses in consultation with the State Govt.*
- v) The PP shall advertise in the local leading newspapers and upload on the website, the above amendment of EC so accorded by the Ministry, for public information.*

2.4 Coal Fired Thermal Power Plant of 3x150 MW at Haldia, District Purba Medinipur, West Bengal by M/s India Power Corporation (Haldia) Ltd. – reg. amendment of EC

(2.4.1) The proposal was appraised by the EAC earlier in its 50th & 52nd meetings held during 28-29.01.2016 and 29.02.2016-01.03.2016, respectively, the minutes of which are as under:

Quote “(2.5.1) The PP made a presentation and inter-alia provided the following information:

- (i) EC was accorded to the above proposal (3X135 MW) by SEIAA, West Bengal on 12.04.2010. Subsequently, Application was made to SEIAA on 20.04.2011 for change in configuration from 3x135 MW to 3x150 MW due to optimization done by BHEL. However, due to the moratorium in Haldia and its lifting only on 17.09.2013 etc., the amendment of EC for change in configuration from 3x135 MW to 3x150 MW was accorded by the Ministry on 14.10.2014. Consent to Establish for 3x150 MW was accorded by WBPCB on 12.11.2014. As the original EC expires on 12.04.2015, an application was made for extension of validity of EC to MoEF&CC in January, 2015 and the same was extended by MoEF&CC on 13.08.2015 for 2 years i.e. till 12.04.2017. The EC validity extension is based on domestic e-auction coal due to de-allocation of coal blocks by Hon'ble Supreme Court.
- (ii) The usage of imported coal was not considered earlier due to the cost economics. However, due to the change in global pricing policy and business scenario, the imported coal price has come down significantly and it is now competitive to domestic coal price. As per the design of boiler, it is capable to fire independently 100% domestic coal, 100% imported coal and also capable to fire blend of imported and Indian coal in various ratios. BHEL has also given the clearance to operate the boiler with 50% Indian coal with any of the imported coal.
- (iii) An agreement has been signed with M/s GMR Coal Resources PTE Limited (GCRPL) for supply of 1.74 MT (\pm 15%) imported coal with maximum sulphur and ash contents of 0.6% and 20% respectively. Haldia Port is at a distance of only 6 km from the TPP and pipe conveyor system from the Port can be explored. The Kolkata Port Trust (Haldia Dock Complex) vide letter dated 19.10.2015 has committed for handling the imported coal for the TPP. There would be a positive environmental impact due to imported coal against the domestic coal because of the lower ash & sulphur contents of imported coal and also from the logistics point of view.

(2.5.2) *Based on the information and clarifications provided by the PP and detailed discussions held on all the issues, the Committee recommended for amendment of EC for **using imported coal and in case of the shortfall of imported coal, if any, a blend of maximum 30% domestic e-auction coal may be used** subject to the following additional conditions.*

- (i) *The Heads of Agreement for the imported coal shall be translated into a firm MoU/FSA and submitted to the Ministry.*
- (ii) *The blending of coal shall be strictly in conformity with the recommendations of BHEL.*
- (iii) *The Sulphur and ash contents in the imported coal shall not exceed 0.6% and 20% respectively any given time. The Sulphur and ash contents in the blended coal shall not exceed 0.5% (maximum as per the EIA/EMP) and 30% respectively any given*

time as indicated in the PP's presentation. In case of variation of coal quality at any point of time, prior approval of the Ministry shall be obtained. Ash % in domestic coal shall be governed by the MOEF&CC policy/guidelines.

(iv) *The CSR Budget for the construction phase be suitably enhanced by Rs. 20 to 25 Lacs per annum as agreed to during the deliberations. However, the budget for operation phase cannot be less than that or the amount as per the CSR policy of GOI till the operation of the plant.*

(v) *The PP shall advertise in the local leading newspapers and place on their website, the Ministry's approval on the above amendment for public information.*

(3.2.2) Subsequent to the meeting, the PP vide letter dated 11.02.2016, with justification, has again requested for use of Imported coal (100%) in addition to using Indian coal (100%) with a provision of using blending of 50% domestic (e-auction) with imported coal.

(3.2.3) *After detailed deliberations, the EAC recommended that since the subject matter is of technical in nature, the matter may be referred by the Ministry to CEA for their advise on whether the request of the PP can be agreed to” **Unquote.***

(2.4.2) The said reply of CEA was received by the Ministry and accordingly, the proposal was placed before the EAC in this 57th meeting on 16.06.2016. The observations of CEA in the matter are as follows:

1. Boilers are generally designed for a specific coal quality (called as design coal) where the best or guaranteed performance is achieved in terms of efficiency, losses, emissions, etc.; along with operating capability within a range of quality variation where optimal performance is however not achieved. Though operation may be possible with wide quality variation from design, larger variations generally lead to larger deterioration in performance.
2. In the above context, the claim of the project proponent (PP) that “*as per the design of boiler, it is capable to fire independently 100% domestic coal, 100% imported coal and also capable to fire blend of imported and Indian coal in various ratios. BHEL has also given the clearance to operate the boiler with 50% Indian coal with any of the imported coal*” does not appear to be realistic. It may be seen that BHEL in their letter dated 5th February, 2016 (enclosed in the reference) have clearly indicated that the boiler is designed for Indian coal (with analysis as enclosed in Annexure-I). BHEL has also indicated that 100% imported (Indonesian or South African) coals can be fired only after completion of PG tests thereby implying possibility of detrimental effect of such firing and thereby not achieving guaranteed performance in PG test.

Also BHEL have clearly indicated that they do not recommend blending beyond 30%, and feasibility of higher blending have to be established by the PP through field trials; which could be conducted only after conducting the PG test. Further BHEL have nowhere indicated that the performance with various coal combinations proposed would be comparable to the design/optimal performance and no impact of performance deterioration/variation have been brought out.

3. Also the PP's contention made out in the MoM of 50th EAC that “*there would be a positive environmental impact due to imported coal against the domestic coal because of the lower ash & Sulphur content in imported coal and also from the logistics point of view*” does not appear to be true as the Sulphur content of 0.5% indicated for design coal is much lower than the Sulphur content of 0.8% indicated for Indonesian and S.A. coal (even after adjusting for heat value). Further, the high moisture content of 32% in Indonesian coal would lead to considerable drop in efficiency and consequently higher emissions.
4. Further, the above observations of BHEL regarding the operating capability of the boiler are for specific composition of the Indonesian and South African coal referred in the proposal and the performance could be substantially different in case of other coal compositions. There are wide variations in quality of coal available internationally and even within Indonesia and South Africa, large variations in coal quality/composition exist.
5. It may also be pertinent to mention that in this era of supercritical technology units, allowing small subcritical units would already involve much higher environmental emissions. Thus efforts should be made to ensure achieving best possible performance of these units with no further deterioration.

(2.4.3) *The EAC took into account the PP's latest letter dt. 10th June 2016 to the MoEF&CC wherein he has inter alia repeated his request “As per the design of the boiler it is capable to fire independently 100% domestic coal, 100% imported coal and also capable to fire blend of imported coal and Indian coal with maximum of 50%”.*

(2.4.4) *After detailed deliberations, the EAC re-iterated its earlier recommendation made in the 50th meeting of January, 2016. EAC however clarified that the use of imported or blended coal shall be done only after PG test with the design domestic coal and strictly in compliance with all other recommendations/conditions of BHEL.*

(2.4.5) *In the light of the above, the PP stated that he was willing to withdraw his request for using a 50:50 blend, but would like to reiterate his request for using either 100% imported coal, or 100 % domestic coal. The EAC advised the PP that whatever changes he is seeking should be submitted formally in writing for the EAC's consideration, and not verbally during the EAC meeting, particularly since there is a very wide (i.e. 100%) variation in the quantities of imported and domestic coal involved.*

2.5 300 MW replacement Coal Based Thermal Power Project at Parli-Vaijanathi, District Beed, Maharashtra by M/s Maharashtra State Power Generation Co. Ltd.- reg. extension of validity of EC.

(2.5.1) The proposal was appraised by the EAC earlier in its 46th meeting held during 26-27.11.2015, the minutes of which are as under:

Quote “The Committee noted that EC for the above TPP was accorded by MoEF&CC on 09.09.2008 with a validity period of five years to start the production operations by the TPP. The PP has applied to MoEF&CC for extension of validity of EC only on 02.11.2015 i.e. after more than two years after the expiry of validity. The Committee also noted that the PP has revised the TPP capacity to 250 MW without the prior approval of MoEF&CC.

2. As the validity of the EC expired more than 2 years back, the proposal could not be considered” **Unquote.**

(2.5.2) The proposal was again referred to the EAC in this 57th meeting on 16.06.2016 as per the clarification provided by the Ministry vide O.M. dated 12.04.2016 on the subject matter. The EAC noted that as per the Ministry’s amendment Notification dated 29.04.2015 regarding extension of validity of EC, the maximum validity of EC for the TPPs is only seven years. The EAC was appraised by the Member Secretary that there was an error in the said amendment Notification i.e. the maximum validity of EC for the TPPs is ten years (5 years initially, extendable by another 5 years, as stated in the EIA Notification, 2006) and not seven years. The same is being rectified by the Ministry.

(2.5.3) *The EAC recommended that the proposal may be referred to them, if required, after rectification of the said amendment Notification and the Ministry’s communication to the PP intimating that the PP’s case would be covered by the above referred to (under process) rectification.*

2.6 67.7 MW Biomass based Cogeneration Power Plant at Village Dharikheda, Taluka Nandod, District Narmada, Gujarat by M/s. Nitash Co-generation Private Ltd.- reg. extension of validity of EC

(2.6.1) The Committee noted that EC for the above TPP was accorded by MoEF&CC on 21.07.2008 with a validity period of five years to start the production operations by the TPP. The PP has applied to MoEF&CC for extension of validity of EC only on 18.05.2016 i.e. nearly three years after the expiry of validity.

(2.6.2) Further, the EAC noted that as per the Ministry’s amendment Notification dated 29.04.2015 regarding extension of validity of EC, the maximum validity of EC for the TPPs is only seven years. The EAC was appraised by the Member Secretary that there was an error in the said amendment Notification i.e. the maximum validity of EC for the TPPs is ten years (5 years initially, extendable by another 5 years, as stated in the EIA Notification, 2006) and not seven years. The same is being rectified by the Ministry.

(2.6.3) *The EAC recommended that the proposal may be referred to them, if required, after rectification of the said amendment Notification and the Ministry’s communication to the PP intimating that the PP’s case would be covered by the above referred to (under process) rectification.*

2.7 1x660 MW Coal Based Supercritical Panki Extension Power Project at Panki, District Kanpur, Uttar Pradesh by M/s Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited- reg. EC

(2.7.1) The EAC noted that Kanpur (includes Panki) is a critically polluted area, although moratorium has been lifted for consideration of projects for EC. EAC further noted that since the establishment of Panki TPP, the area surrounding it has become heavily populated with several lakh populations residing near the plant site. It also noted that though existing units (2x105 MW = 210 MW) would be phased out, capacity of expansion unit (660 MW) will be nearly 3 times the capacity of units to be phased out. Considering the non-compliance of emission & effluent limits by the existing TPP, CPCB had issued directions on 15.09.2015 to UPPCB to direct the Panki TPP for

submission of action plan to ensure compliance of emission & effluent standards. However, the EAC was informed by the representative of the CPCB that there was no response from UPPCB or the PP in this regard.

- (2.7.2) It was also noted that the Ministry, CPCB and EAC have received several representations from the local population on the existing TPP and also requesting not to consider the proposed expansion in light of its proximity to the local population, the adverse environmental impacts already caused by the existing TPP, etc. The representations had also brought out that the area was heavily populated, and a population of more than six lakhs in the immediate vicinity would be adversely impacted. The EAC was also informed that Kanpur city itself was in close proximity, approximately only 15 kms away from the proposed project.
- (2.7.3) The EAC also noted that during the Public Hearing, a large number of participants had repeatedly brought the harmful environmental impacts of the existing unit, particularly the ash problem. However, in response to these repeated complaints, the PP had merely stated to each participant that with the new technologies envisaged for the proposed units, the ash problem would be taken care of. The EAC took note of the fact that as yet there was no approval of the competent State Govt. Department to the proposed phasing out of the existing units on commissioning of the new units, and as such there was no definite time frame for the closure of the existing units. Considering that the new units would take a minimum of four years to commission, and with no definite time frame for closure of the existing units, it implied that the ash problem would continue for many more years. The EAC was therefore distressed to note the manner in which the PP had dealt with the ash issue during the Public Hearing.
- (2.7.4) *After detailed deliberations, despite the fact that the proposed expansion would have relatively lesser impacts in comparison to the existing old TPP, considering that Kanpur (including Panki) is existing critically polluted area and presence of dense population surrounding the plant site etc., the EAC is of the view that the PP may explore alternate electricity generation options (Gas based/Solar, etc.) in the proposed location. The EAC also advised the PP to explore alternative locations for the proposed coal based TPP as it would not be possible for it to consider the presently proposed location. In addition, the EAC recommended that the MoEF&CC should ask the CPCB and SPCB to take immediate action to ensure that the existing TPP is complying to the emission & effluent standards.*

2.8 2x300 MW Yamuna Nagar Thermal Power Project, Stage-II, Phase I, Yamuna Nagar, Haryana by M/s Haryana Power Generation Corporation Ltd.- reg. amendment of EC

- (2.8.1) The proposal was appraised by the EAC earlier in its 50th meeting held during 28-29.01.2016, the minutes of which are as under:

Quote “(2.5B.1) The PP made a presentation and *inter-alia*, provided the following information:

MoEF while granting EC dated 18.11.2004 to the above TPP had stipulated under (Clause No. 3-IX) that, “A 500 m distance from National Highway/Railway line and 500 m distance from HFL of river Yamuna from the plant site, ash pond and Township must be kept”. Accordingly, ash disposal area for the thermal power station having an effective area of 200 acres was kept 500 m away from Yamuna Nagar-Saharanpur

Railway Track. As a result, the land measuring about 90 acres was kept vacant and is still lying vacant in compliance of the directions of the Ministry. It is requested to grant EC for installation of a Solar Power Project of about 15 MW in the said vacant land.

(2.5B.2) Regarding utilization of the area kept vacant in pursuance of the EC condition, the Committee was of the view that the Ministry may take a suitable decision in the matter as the said condition seems to have been stipulated by the Ministry based on its guidelines” Unquote.

(2.8.2) The proposal was again referred to the EAC in this 57th meeting on 17.06.2016 for appraisal and recommendation. Since no new point has been raised, *the EAC reiterated its earlier recommendation that the Ministry may take a suitable decision in the matter (i.e. permission for utilization of the vacant land), as the said condition seems to have been stipulated by the Ministry based on its guidelines.*

2.9 4x300 MW Thermal Power Plant at Jaigad, District Ratnagiri, Maharashtra by M/s. JSW Energy (Ratnagiri) Ltd. – reg. amendment of EC

The EAC noted that the background documents had not been received by the members. As such, the Committee was not in a position to consider the case. The proposal was, therefore, **deferred**.

2.10 1,600 (2x800) MW Godda Thermal Power Project at Villages Motia, Gangta & Gaighat, Tehsils Godda & Poraiyahaat, District Godda, Jharkhand by M/s Adani Power (Jharkhand) Ltd.- reg. ToR

(2.10.1) The above proposal (same district and different villages) was earlier discussed in the 52nd and 55th meetings of the EAC (Thermal Power) held on 29.02.2016-01.03.2016 and 05-06.05.2016, respectively, the minutes of which are as under:

Quote “(2.3.1) In the 52nd meeting on 29th Feb – 01st Mar 2016, the PP along with their environmental Consultant, Greencindia Consulting Private Limited, NCR, Ghaziabad made a presentation and *inter-alia*, provided the following information:

- i. Adani Power (Jharkhand) Limited, (APJL) is a subsidiary company of APL which has been formed to develop Thermal Power Plant in Jharkhand. The power plant is being developed as a result of the MoU signed between Government of India (GoI) and Government of Bangladesh (GoB) on 11.01.2010 with a view to enhance traditional ties of friendship, through economic co-operation. Accordingly, Adani Power Limited (APL) on 11.08.2015 signed a MoU with Bangladesh Power Development Board (BPDB), to develop a 2X800 MW thermal power plant on BOO basis in India and supply the entire power generated to Bangladesh Power Development Board (BPDB) through a dedicated Transmission Line.
- ii. NOC from Ministry of Power, Government of India has been obtained to set up Thermal Power Plant in Jharkhand for supplying power to Bangladesh through a dedicated 400 kV transmission line. Government of Jharkhand has signed MoU with Adani Power (Jharkhand) Limited for setting up this Power Plant.
- iii. After exploring four sites, the site at Paraspani has been finalized because of No Protected or Reserve Forest involved in project site, No Wildlife Sanctuary/National

Park is located within 15 km from the project site, Land is mostly barren with single crop thus least impact on Agriculture and livelihood in comparison to other location and Minimum Displacement, therefore lesser R & R issues. A second order seasonal stream passes through the site, which will be conserved. To maintain natural drainage profile, storm water drains will be developed along the profile of first order streams.

- iv. The land requirement is 1,014 acres/410 Ha. (includes Main plant, Coal Storage, Water Reservoir and Green Belt) [Private land: 302 + Govt. land: 108]. The coal requirement is 7.0 MMTPA of Imported Coal which will be met from Indonesia, South Africa, Australia and other possible sources. The imported coal shall be received at Dhamra port (Odisha) and the same will be transported to the project site by rail. Coal storage of 15 days requirement of coal is proposed at the power plant. The annual requirement of coal is estimated to be about 7.0 MMTPA. Hasdiha- Godda Railway Line is under development. Railway Infrastructure will be developed from Godda to the Site. The nearest Railway Station is Hansdiha (39 Km, SW) and the nearest Sea Port is Kolkata Port (350 km, S). The project site falls under ZONE – III as per IS 1893: 200. The project cost is Rs. 13,906 Crores.
- v. The water requirement is 4,000 m³/hr (35 MCM per annum) which shall be sourced from Chir River with a water intake point at a distance of 20 km. The water will be drawn from the River Chir by constructing a pump house and pumping the water to the plant through a dedicated pipeline. An intermediate booster pumping station shall be provided for Paraspani site. Closed circuit cooling water system would be adopted for steam generator and turbine generator and common auxiliaries like air compressors, ash handling plant equipment etc. It is proposed to install Two (2) natural/induced draft cooling towers, one for each unit and of approx. capacity 92,000 m³/hr per tower. The cooling tower would be designed for a cooling range of 9°C. 100% Ash disposal shall be as per MoEF guidelines.

(2.3.2) *The Committee observed that although the proposed site seems to be suitable for the TPP w.r.t ecology etc., the PP did not provide the information/data regarding the water availability from Chir River so as to assess the impact of proposed water drawl on the downstream users and ecology. Accordingly, the proposal was **deferred** and the following information was sought:*

- i. *Data from the State Irrigation Department justifying the water availability.*
- ii. *Impact of proposed water drawl on the downstream users and ecology.*
- iii. *Confirmation that the imported coal parameters shall be as per the O.Ms of the Ministry.*
- iv. *Copy of the NOC from Ministry of Power for the export of power.*

(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.*

(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” **Unquote**.
- (2.10.2) Subsequent to the last EAC, the PP has applied to the Ministry for ToR for the same project but at a revised site, which is at a distance of 17.5 km away from the earlier site. The name of the project has been changed to “Godda Thermal Power Plant”, as the Paraspani Village is no more involved. However, the source of coal and water remain unchanged.
- (2.10.3) The PP along with their environmental Consultant, Greencindia Consulting Private Limited, NCR, Ghaziabad and hydrology consultant, Nano System Consultant Pvt. Ltd. made a presentation. An Executive Engineer from the WRD, Govt. of Jharkhand was also present.
- (2.10.4) The land requirement is 860 acre (Main plant, WTP, CT: 393 acre; Green Belt: 203 acre; Town: 30 acre and Ash Dyke: 234 acre) of which private land is 737 acre and Govt. land is 123 acre. Additional area of 550 acre for raw water reservoir will also be required. The nearest Railway Station is Hansdiha (39 km, SW).
- (2.10.5) The EAC noted that the PP did not submit the information sought in the last EAC i.e. flow data and catchment areas of Chir River etc. The EAC pointed out that since the source of water remains unchanged, the data is still required. The hydrology consultant has only tried to make oral submissions. The proposal was accordingly, **deferred**.

2.11 Proposed 1x500 MW Coal Based Sagardighi Phase III Extension Unit-5 at Sagardighi Thermal Power Station (SgTPP) in Murshidabad District, West Bengal

by M/s The West Bengal Power Development Corporation Ltd.- reg. amendment of ToR for revision of capacity to 660 MW

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

- (i) ToR for the above proposal was accorded by MoEF on 15.01.2015. The EIA report is already prepared for 500 MW and the same is ready for submission to PCB for Public Hearing.
- (ii) CEA vide letter dated 28.03.2016 has advised WBPDCCL to explore the possibility of setting up supercritical Unit for projects likely to be commissioned in 13th Plan. Considering the directive of CEA, WBPDCCL is contemplating to change the plant capacity from 500 MW subcritical Unit to 660 MW supercritical Unit considering high thermal efficiency and environment friendliness in terms of emission.
- (iii) The existing available land is adequate to accommodate the 660 MW Unit along with the requisite FGD and SCR in compliance to the norms notified by MoEF&CC on 07.12.2015. The coal requirement will increase from 2.76 MTPA (85% PLF) to 3.4 MTPA (90% PLF) and the water requirement will decrease from 1,800 m³/hr to 1,650 m³/hr.

(2.11.2) *After deliberations, the EAC recommended amendment of ToR for revision of capacity to 660 MW subject to the following additional ToR:*

- i. The EIA/EMP report shall be revised based on the standards notified by MoEF&CC on 07.12.2015.*
- ii. In addition, long term data of the existing three monitoring stations is to be included along with the data of the five new proposed stations.*

The next meeting of the EAC (Thermal Power) is scheduled on **14th and 15th July, 2016**. As, there being no agenda item left, the meeting ended with a vote of thanks to the Chair.
