

MINUTES OF THE 54th MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) ON ENVIRONMENTAL IMPACT ASSESSMENT (EIA) OF THERMAL POWER & COAL MINING PROJECTS

The 54th Meeting of the reconstituted EAC (Thermal Power) was held on 31st March, 2016 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:

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|-------------------------|---|---------------------------------|
| 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 G.S. Dang | - | Member |
| 6. Dr. S.D. Attri | - | Member (Representative of IMD) |
| 7. Shri P.D. Siwal | - | Member (Representatives of CEA) |
| 8. Shri Manoj K Gangeya | - | Member Secretary |

Shri J.L. Mehta, Shri A.K. Bansal, Shri Shantanu Dixit, Dr. Ratnavel, Representatives of CPCB and WII could not be present.

Item No.1: CONFIRMATION OF THE MINUTES OF THE 52nd EAC (LAST) MEETING.

Based on comments/observations of Members that had been received, the Minutes of the 52nd EAC (Thermal Power) meeting held during 29th February and 1st March, 2016 were confirmed.

Item No. 2: CONSIDERATION OF PROJECTS

2.1 Expansion of Obra TPP by addition of 2x660 MW at Obra, Tehsil Robertsganj, District Sonbhadra, Uttar Pradesh by M/s Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. - reg. reconsideration of EC.

(2.1.1) The proposal was earlier discussed in the 50th Meeting of the EAC (Thermal Power) held during 28th-29th January, 2016, the minutes of which are as under:

Quote "The Project proponent (PP) along with their environmental Consultant, BHEL, PCRI, Haridwar made a presentation and *inter-alia*, provided the following information:

TOR was granted by MoEF on 05.10.2007. Based on TOR issued, EIA studies were carried out during 2007-2008 and Public Hearing was conducted on 18.12.2008. Request for change in unit configuration from 2X500 MW to 2X660 MW was made by UPRVUNL. The same was considered by EAC during its 36th meeting held on November 14-15, 2011 and it was directed to revise the EIA/EMP report, Form-1 in consonance with the changed scenario with a few points for consideration vide letter dated 30.01.2012 (Letter of Change in Configuration). Accordingly, revised EIA report of the project was submitted for appraisal before EAC during its 60th meeting held on November 5-6, 2012. MoEF desired additional information on some of the issues and also advised to collect the fresh AAQ, Water and Soil data and revise EIA/EMP report and also re-conduct Public Hearing on revised report vide letter dated 25.04.2013. EIA Report has been revised incorporating the points suggested by MOEF. UPPCB re-conducted Public Hearing on 17.10.2014. Present presentation is as per MoEF letter

dated 25.04.2013. It was seen that the baseline data related to the period March to June 2013. The imported coal characteristics of sulphur and particularly ash were very high, while the GCV was low.

After detailed deliberations, the Committee sought the following documents/ information which were either not available in the EIA/EMP report or not found in order:

- (i) *NBWL clearance*
- (ii) *Detailed compliance report to the latest Consent to Operate (CTO) accorded by SPCB for the existing units.*
- (iii) *Action plan for phasing out the older Units to be submitted within six months to the MoEF & CC.*
- (iv) *Imported coal proposed to be used shall have lower sulphur & ash content and higher GCV so that the coal quantity to be imported, and its ash generation can be reduced. The imported coal may also be blended with the domestic coal presently being used for the existing units which will also ensure boiler efficiency to the designed parameters. In any case, the Ministry's O.Ms dated 05.02.2013 and 02.11.2015 on imported coal quality shall be complied with. Accordingly, the MoU/FSA for imported coal shall be revised.*
- (v) *Revised AAQ factoring the R&M and closing down option of the existing Units to be assessed/predicted and submitted.*
- (vi) *Justification/ explanation for the high concentration of toxic trace metals in the soil.*
- (vii) *Details of existing fly ash utilization and detailed Action Plan for the same.*
- (viii) *An integrated water balance factoring effluent treatment plan of desired degree to fulfill Zero Liquid Discharge along with water quality profile at various important locations has to be provided.*
- (ix) *Revised Budgeted Action Plan for addressing the issues arising out of the Public Hearing and accordingly, CSR Budgeted Action Plan also to be submitted.*

*In view of the above, the proposal was **deferred with advice to the PP to submit the above information/document/clarification within the validity of baseline data for submission of the same.**"Unquote.*

(2.1.2) Upon submission of the reply by PP to the above, the proposal was again placed before the Committee during this 54th meeting on 31st March, 2016, wherein the PP along with their environmental consultant, BHEL, PCRI, Haridwar, made a presentation and inter-alia, provided the following information:

- I. The application for obtaining clearance from NBWL was submitted to DFO, Kaimur Wildlife Division, Mirzapur on 15.12.2012. DFO, Kaimur Wildlife Division, Mirzapur confirmed that the proposed project is located at a distance of about 7.7 Km from boundary of Kaimur Wildlife Division and there will be no impact on the wildlife of the sanctuary due to proposed project vide letter dated 02.05.2013. The application was recommended and forwarded to Govt. of India for approval from

Standing committee of NBWL by UP Govt. vide letter dated 24.12.2013. MoEF&CC Wild life Division desired some additional information vide their letter dated 22/06/2015 and 14/07/2015 addressed to Principal Forest Conservator, Wild life, U.P., Lucknow. Principal Forest Conservator, Wild life, U.P., Lucknow has sent the desired information to the Ministry Vide his letter dated 11/02/2016. MoEF&CC vide their Draft Notification Dated 22/09/2015 have proposed the extent of eco-sensitive zone as 01 Km all around the boundary of Kaimur Wildlife Sanctuary. As the proposed plant site is 7.7 km away from the nearest boundary of Kaimur Wildlife Sanctuary, hence there is no effect on eco-sensitive zone by the proposed plant.

- II. Regarding the 'Consent to Operate' for the existing units, SPCB had earlier directed Obra TPS to take certain necessary action vide their letter dated 28.04.2015. After taking the desired action, Obra TPS submitted the latest compliance report to SPCB vide letter dated 14.01.2016. Application has also been submitted online and requisite fee also paid for obtaining consent to operate from SPCB. The team of SPCB visited the project and they inspected the facilities of Ash Water Recirculation System (AWRS) and ETP. The team appreciated the functioning of these plants. The SPCB also noted on the spot the low level of stack emission and appreciated the improvement in the emission of unit no. 9 (200 MW), which has under gone R & M along with installation of the new ESP in the unit. "Consent to operate" form SPCB is awaited.

Presently, Unit no. 10 & 11 (200 MW each) are under R & M and ESP of capacity 100 mg/Nm³ is being installed in these units, which are likely to be commissioned in April, 2016 and August, 2016 respectively. Thereafter, Unit no. 12 & 13 shall be shutdown sequentially for R & M and shall be completed by Dec 2017. ESP in Unit # 1, 2 (each of 50 MW) in which ESP have already been installed during their R&M work, shall be phased out after commercial operation of Unit no. 6 & 7 each of 500 MW of Anpara 'D' Thermal Power Station as approved by BOD, UPRVUNL on dated 22/09/2015. Anpara 'D' Units are scheduled to start commercial operation in the month of April, 2016 & May, 2016 respectively. Unit # 3, 4 & 5 (each of 50 MW) have already been deleted. Unit # 6 (100 MW) has been deleted. Unit # 7 (94 MW) is under shut-down for R&M works, which is under progress. However, in view of the directives of CEA letter dated 7.1.16, decision of phasing out of old unit no. 7 shall be taken by UPRVUNL. Unit # 8 (100 MW) is under process of deletion.

Thus by phasing out of Unit no. 1 & 2 and shutting down of Unit no. 12 & 13 by the month of July, 2016, stack emission from Obra TPS shall be effectively controlled and brought well within the permissible limits of environmental norms applicable to these units. To control fugitive emissions in coal handling area, sprinklers have been installed from where regular sprinkling of water is being done. Dry fly ash is transported in closed container. To control water pollution, Effluent Treatment Plant has been constructed and the same is functional since 17-09-2014. 11 nos. oil trap pits have also been constructed to arrest the spillage of oil. Construction work of AWRS has been completed, and the same is functional since 07 Dec, 2015.

- III. The coal requirement for the proposed TPP is 5.528 MTPA. Saharpur-Jamarpani Sector, Brahmani Basin, Rajmahal group of Coalfields, Jharkhand coal blocks have been allotted by Ministry of Coal, GOI to UPRVUNL for Obra-'C' extension project. As per Schedule-E of allotment order, application for EC & FC of coal

block is to be submitted after 11 months from the submission of Geological Report (GR) i.e. by 12.05.2018. The boiler will be designed for 100% domestic coal (worst case scenario). However, till 100% domestic coal is available, 70% imported and 30% domestic coal will be used. The 30% domestic coal will be sourced from the linkage coal of the old units which will be phased out before the commissioning of the proposed expansion TPP.

To comply with instructions issued by EAC on 28.01.2016, a revised MOU has been entered into with MMTC on dated 24.02.2016 for the desired coal characteristics and quantity. As per revised MOU, the sulphur, ash and GCV are 0.6%, 12% (max.) and 5,000-5,500 Kcal/Kg respectively. The earlier quantity of imported coal was 5.54 MTPA and is now revised as 3.4 MTPA which will be blended with domestic coal 1.6 MTPA (70: 30 respectively). The blended coal shall be better than domestic coal in terms of lower ash content and improved calorific value. Consent for transportation of imported coal from Port to project location has been accorded by Railways vide their letter dated 16.10.2015.

Meanwhile, Coal ministry issued O.M dated 08.02.2016 to cater for Bridge linkage of coal for the period between development of the coal block and commissioning of the project. Bridge Linkage for the proposed project has been applied in accordance with Coal Ministry's above mentioned O.M. SLC (LT) meeting for Bridge Linkage has already been conducted at MOC on 18.03.2016 & project is expected to get Bridge Linkage for which Order is awaited.

- IV. The Air Dispersion Modeling on various possible running combinations of the existing units & proposed 2x660 MW units of Obra C project has been done. The scenarios/combinations of running various units, existing as well as proposed, have been covered in the Modeling. The Ground Level concentration of SPM, SO_x & NO_x are well within the prescribed limits. Revised AAQ factoring the R&M and closing down option of the existing units is done and emission Inventory and modeling outputs are presented.
- V. Dry fly ash of Unit # 1, 2 & 9 is being lifted by M/s J.P. Associates through Dry Fly Ash Collection System after completion of R&M of these units. Unit # 10 & 11 are presently under R&M. After completion of their R&M by March 2016 and July 2016 respectively, dry fly ash from these units shall be collected through Dry Fly Ash Collection System and same will be lifted by M/s J.P. Associates as per ash existing agreement with them.

Unit # 12 & 13 are currently under operation, and these shall be put under R&M in phased manner. Their R&M is proposed to be completed by Dec 2017. Dry Fly Ash Collection system shall be installed during R&M. After completion of R&M, dry fly ash from these units shall be lifted by M/s J.P. Associates as per existing agreement with them.

Presently the ash utilization from the running units no. 1 & 2 (50 MW each) and unit no. 9, 12 & 13 (200 MW each) are not up to mark. The main handicaps/hurdles in the desired utilization of the ash are non-availability of dry fly ash extraction system in unit no. 12 & 13 and above all transportation of ash through the restriction of passage due to high population density in the surrounding area through which ash is transported. In order to overcome these

hurdles and facilitate easy delivery of fly ash, action is being taken to construct a distant silo at a separate access road.

Meanwhile the ash is allowed to be transported in closed containers, and sprinklers are used to sprinkle water to control the fugitive dust/ash. Moreover the UPRVUNL intends to appoint a suitable consultant to carry out the feasibility study for construction/installation of ash based products like brick, paver blocks, tiles and other ash based products on a large scale, as a long term measure for ash utilization. These studies will be carried under CSR funds and the products will be distributed, if required in the near by area under CSR work.

To increase the fly ash utilization, National Highway Authority/PWD and other agencies of nearby area have been contacted for lifting of fly ash/pond ash and some of the agencies have expressed their interest for lifting fly ash/pond ash from Obra TPS for construction of Roads as well as making Bricks/Tiles etc and LOI have been issued to them. M/s J.P. Associates have expressed their interest to utilize entire dry fly Ash generated from the proposed 2x660 M.W. Obra C TPP. For these new units, installation of DFAES and a distant silo are also envisaged. Moreover, the new units shall have disposal of ash slurry only in the form of HCSD. Action Plan for 100% fly ash utilization is presented.

- VI. UPRVUNL has framed its CSR policy and CSR committee. UPRVUNL is committed to spend 0.4% of capital cost of the proposed project i.e. approx. Rs. 35 crores as one time investment under CSR activities. The list of activities to be undertaken under CSR plan has been obtained from District Administration. Besides, an order has been placed with I.I.T. Kanpur to carry out need based detailed Socio-economic study in study area of proposed project site vide LOI dated 02/02.2016. Study is under progress and I.I.T. Kanpur shall submit their final report by April, 2016. Based on both these documents, CSR activities as per the need of local population shall be carried out by UPRVUNL. Seven number RO plants (costing about Rs. 64 lacs) at different locations in the area identified by district authorities have been provided to ensure pure and safe drinking water to the residents under CSR works. These are operated and maintained by UPRVUNL.

(2.1.3) The EAC pointed out that the toxic trace element levels such as Nickel (41.38 to 89.74 µg/gm), Chromium (23.85 to 123.64 µg/gm) and Zinc (53.81 to 74.64 µg/gm) are relatively high in soils sampled and the levels of Nickel are markedly higher than the limits prescribed for soils as per State Environmental Protection Administration, China (SPEAC). The PP mentioned in his presentation that the high levels were due to fly ash deposited on soils due to dust blow from fly ash dykes and mixing fly ash with soils. In other words, the long-term weathering (30 to 36 years) of fly ash is perhaps contributing to the release and build up toxic trace metals into soils leading to contamination of not only soils but also the ground and surface waters.

(2.1.4) The old fly ash dykes which were not lined, the dust blow from ash dykes, the fugitive dust from stacks of the old power plants and the effluent from ash dykes led to the contamination of soils and also ground and surface waters in the area around the Obra power plants. At present, ash utilization is 22% for existing units and it is indicated by the PP that to utilize ash from proposed units, silo has been planned for fly ash and ash pond with liner for bottom. Also, a unit of brick manufacturing is proposed. Although an Action Plan has been submitted by the PP, the same seems to

be not credible. Hence, a detailed credible Action Plan shall be submitted to the Ministry.

(2.1.5) The extent of contaminated terrestrial habitat and its land use, and the level of depth to which the heavy metals leached, and the levels of toxic trace metals in the ground and surface waters in the contaminating site are not yet known.

(2.1.6) *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 granting environmental clearance for the desired expansion subject to stipulation of the following additional specific conditions:*

- (i) *The EC is subject to the clearance from the Standing Committee of the NBWL. Further, the grant of EC does not necessarily imply that wildlife clearance shall be granted to the project. The proposal of wildlife clearance will be considered by the respective authorities on its merits and decision taken. The investment made in the project, if any based on EC, in anticipation of the clearance from wildlife angle shall be entirely at the cost and risk of the project proponent and MoEF shall not be responsible in this regard in any manner.*
- (ii) *The EC is recommended for 70% imported and 30% domestic coal. The PP shall apply for suitable amendment of EC after obtaining the EC and FC of the linked coal block.*
- (iii) *The Sulphur and ash content of imported coal shall not exceed 0.6% and 12 % 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.*
- (iv) *Detailed credible Action Plan for fly ash Utilization from the existing and expansion units in compliance to the Ministry's Notifications shall be submitted to the Ministry. The details (size, location and liner system, including capping if any for old ash pond) of existing ponds along with quantity of ash and that for proposed units should be provided.*
- (v) *As a precautionary measure to prevent the entry of heavy metals into food chain, the PP should: (i) immediately barricade the polluting ash dykes and the contaminated area including agricultural fields of farmers, (ii) the PP should examine the possibility of acquiring the agriculture fields after paying compensation to the farmers, and (iii) the fields should not be used for cultivation till they are decontaminated.*
- (vi) *As the data provided by PP indicates contamination of soil by heavy metals crossing limits in respect of Ni, there is a need to carry out detailed assessment for soil contamination to know the extent (area & depth) of contamination and then preparation of remediation plan through a competent organization / agency in this field. Based on such study, the PP should undertake both short and long-term mitigation measures including bioremediation technologies to decontaminate the polluted sites and prevent further pollution from existing ash dykes.*
- (vii) *The PP should immediately undertake the study not only relating to the contaminated sites, but also the details on the number of ash dykes and the area covered by ash dykes, the amount of ash lying in the dykes, the volume of effluent*

discharged, and current status of these dykes should be made available for evolving effective decontamination strategies.

- (viii) *As PP has indicated about achieving zero discharge of effluent, the details of proposed system are required to be provided by PP of the 12 MLD ETP proposed, including proposed R.O. system, management of R.O. reject as well as ash overflow and its recycling arrangement.*
- (ix) *The PP should also undertake short and long-term studies on health disorders among people living within the contaminated area.*
- (x) *The PP should create an Environment Cell exclusively for Obra PP to manage the fly ash dumps and monitor decontamination programme of the contaminated sites. The Cell should include one ecologist, one soil scientist/microbiologist, one environmental scientist and one plant scientist.*
- (xi) *As committed, a minimum amount of Rs. 35 crores shall be earmarked for the capital cost of CSR during the construction phase of the project. The CSR budget during the operational phase shall be minimum as per the CSR policy of GOI. Based on the socio-economic study being carried out by IIT Kanpur, a detailed budgeted credible action plan shall be submitted to the Ministry.*

2.2 3x660 MW (Stage-I: 2x660 MW; and Stage-II: 1x660 MW) Super Critical Coal Based TPP at Village Painampuram, Muthukur Mandal, District Nellore, Andhra Pradesh by M/s Thermal Powertech Corporation (India) Ltd.- reg. Amendment of EC.

- (2.2.1) As pointed out by the Committee, the PP agreed that there were numerous inconsistencies & contradictions in the documents submitted, as also inconsistencies and contradictions in the amendments being sought in the EC (example: percentage quantity of imported coal being proposed for use), and that they would rectify the same and resubmit. The proposal was accordingly, **deferred**.
- (2.2.2) As PP has commissioned two units, present ground water quality monitoring data must be provided along with the baseline data of EIA report (prior to EC) to know the impact due to operating units. Also, compliance of EC conditions in respect of these two commissioned units shall also be submitted.
- (2.2.3) Detailed reply to the issues raised by the ERC in their letter dated 30.03.2016.

2.3 2,000 MW Gas Based Combined Cycle Power Plant (CCPP) at Village Godhra, District Kutch, Gujarat by M/s. Nana Layja Power Co. Ltd. - reg. discussion on adequacy of stack height etc.

The EAC was informed that the Ministry has withdrawn the proposal from the Agenda considering the earlier recommendations of EAC on the same.

2.4 2x515 MW Imported Coal Based Thermal Power Plant at Villages Kattupalli & Kalanji, Taluk Ponneri, District Thiruvallur, Tamil Nadu, by M/s. Chennai Power Generation Ltd.- reg. reconsideration for ToR

The PP requested for deferment.

2.5 Expansion of 1,200 MW to 2,520 MW by installing 2x660 MW Coal Based Power Project near Village Kajurda, Taluka Khambhalia, District Dev Bhoomi Dwarka, Gujarat by M/s. Essar Power Gujarat Ltd. – reg. ToR

- (2.5.1) As pointed out by the Committee, the PP agreed that there were numerous inconsistencies & contradictions in the documents submitted and that they would rectify the same and resubmit. The proposal was accordingly, **deferred**.
- (2.5.2) The compliance of EC conditions in respect of Phase-I, which is completed and in operation shall be submitted. Further, present air quality data monitored should be provided along with the baseline data at the time of preparation of EIA report for Phase-I.

2.6 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.

The Committee noted that the related 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**.

2.7 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.

- (2.7.1) The PP made a presentation and inter-alia, provided the following information:
- i. EC for Sipat STPP Stage-I was accorded by MOEF on 22.02.1999 for capacity of 2,000 MW (4x500 MW). However, due to change in configuration of project from 4x500 MW to 3x660 MW, an amendment to EC was issued by MOEF 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 through the 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 emission 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 end to plant (about 42 kms 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 dtd. 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 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 (ie within Sep 2015), but NTPC had done so only in March 2016, thus again being in violation of the EC condition of Sep 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 MoEFCC 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 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 also check up its earlier records. The proposal was accordingly **deferred** till the earlier position became clearer.
- (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 utilised 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 ambient air quality monitoring as well as short & long term health survey of people in villages/habitation within one km on either side of the railway track stretching from 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.

3.0 Discussion under any other item:

The Committee has noted that requests are being received for amending the EC to reflect the PP's decision to use imported coal instead of domestic coal. For example, in the recent past, such requests had come up in the 52nd EAC held on 29th Feb-1st March 2016 under agenda item 2.5 (6x660 MW TPP by KSK Mahanadi Power Company, for reasons mentioned in para 2.5.1 (vi)) and item 3.2 (3x150 MW TPP by India Power Corporation), as well as in the present 54th meeting, under agenda item 2.2 {3x660 MW (Stage-I: 2x660 MW; and Stage-II: 1x660 MW) TPP by M/s Thermal Powertech Corporation (India) Ltd }. The Committee felt that the MoEF&CC may like to apprise the Ministry of Coal of this position.

There being no agenda item left, the meeting ended with a vote of thanks to the Chair. The next meeting of the EAC (Thermal Power) is scheduled for **5th – 6th May, 2016**.
