

MINUTES OF THE 6th MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE ON ENVIRONMENTAL IMPACT ASSESSMENT OF THERMAL POWER & COAL MINE PROJECTS

The 6th Meeting of the reconstituted Expert Appraisal Committee (Thermal) was held on **December 5-6, 2013** at IOCL Conference Hall, 5th Floor, Core-6, Scope Complex, Lodhi Road, New Delhi. The members present were:

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|---------------------|---|------------------|
| 1. Shri A.S. Lamba | - | Chairman |
| 2. Dr. C.R. Babu | - | Vice Chairman |
| 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. Dr. S.D. Attri | - | Member |
| 9. Dr. Ratnavel | - | Member |
| 10. Dr. Saroj | - | Member Secretary |

In attendance: Dr. M. Ramesh, Deputy Director, MoEF.

Shri P.D. Siwal, Dr. C.B.S Dutt, Representatives of CPCB and WII were absent.

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

The Minutes of the 4th EAC meeting were confirmed with minor corrections. However, while confirmation of the same, it was noted that the proposal of *2x600 MW and 3x800 MW coal based TPP of M/s IL&FS Tamil Nadu Power Company Limited at Villages Kottatai, Ariyagosthi, Vilianallur & Silambimangalam, Chidambaran Taluk, District Cuddalore in Tamil Nadu- reg. Amendment of EC* which was considered in the 4th EAC meeting as item no. 2.21, as per the MoU provided by the proponent, the coal would be sourced from Indonesia and South Africa. The Committee therefore recommended that in the said minutes, instead of only coal from Indonesia, the coal would be imported from Indonesia and South Africa.

Item No. 2: CONSIDERATION OF PROJECTS

2.1 2x660 MW coal based TPP of M/s Sahara India Power Corporation Ltd. at Villages Ghantbahal, Mohda and Bhalegaon, Tehsil Titlagarh, District Bolangir, Orissa – reg. Environmental Clearance

The proposal is for setting up of 2x660 MW coal based TPP at Villages Ghantbahal, Mohda, Bhalegaon, Tehsil Titlagarh, District Bolangir, Orissa by M/s Sahara India Power Corporation Ltd. The project was accorded TOR for preparation of

EIA/EMP report on 08.12.2009. The EIA / EMP report after conducting public hearing was submitted to the Ministry for consideration of environmental clearance. The Project Proponent (PP) along with their environmental consultant, M/s Anacon Laboratories Pvt. Ltd., Nagpur made a presentation and provided following information:

The total project area is 950 acres including ash pond area and township, which is being acquired through IDCO (Industrial Dev Corporation of Odisha, Govt. of Odisha agency) as per the MoU. Total Land in possession of the PP is 467.65 acres and the balance 482.35 acres is under various stages of acquisition & transfer. Full payment for Land made as per demands of IDCO by SIPCL over 800 acres. Out of 950 Acres, disputed/ held up land is 276.53 Acres, which is under litigation in the Hon'ble High Court of Odisha. The co-ordinates of the site are located within Latitude 20⁰12'24.20" N to 20⁰13'59.49" N and Longitude 83⁰10'51.10" E to 83⁰12'8.60" E. The total project cost is Rs. 8000 crores.

There are no National Parks, Wildlife Sanctuaries, Biosphere/Tiger Reserves, Heritage sites etc. within 10 km of the plant. There are two reserve forests in the study area viz. Baranai R.F at 4 km in the north east and Bazargarh R.F at 7.7 km in the east.

The Total water requirement is estimated to be 3580 m³/h, which will be met from River Tel. Water allocation for annual drawl of 53 Cusec from Tel River, which is at 1.5 Km from site was approved by 57th Water Allocation Committee on 22.05.2011. Central Ground Water Board (CGWB), New Delhi has given NOC for drawl of 500 m³/day water for construction purpose vide letter 7th January 2011.

Earlier at the time of TOR, it was proposed to procure domestic coal from Mahanadi Coalfields. However, it is now informed that due to non-availability of domestic coal linkage, it is proposed to use imported coal which would be sourced from Indonesia. The imported coal requirement is 4.6 MTPA. An MOU was signed with M/s Anshul Impex Pvt. Ltd., Nagpur on 27.08.2013 for import of 4.66 MMT Coal from Indonesia with 6-17% ash, GCV 5500 to 6000 Kcal/kg, sulphur < 0.8 %. The coal will be imported through Gangavaram Port, Vishakhapatnam where adequate port capacity is available. It has been confirmed by the port authority vide letter dated 11th Oct. 2013. Coal will be transported through existing network of Indian Railways from Gangavaram Sea Port up to the project site. An amount of Rs. 63.79 lakhs has been deposited with Railways on 14th Nov. 2012. M/s Aarvee Associates Architects Engineers & Consultants Pvt. Ltd. Bhubaneswar have completed Survey & layout of Railway line from Sikiri Railway linking station (17 km estimated) from the site and DPR is under preparation & shortly it will be submitted to East Coast Railway. ECR letter of 16/08/2013 refers. Chimney Clearance approval will be obtained from Airport Authority of India (AAI).

Public hearing/public consultation was conducted by the Orissa State Pollution Control Board held on 05.06.2012. It was noted that the issues raised in the public hearing include rise in temperature in the surrounding area due to the proposed project, scarcity in the drinking water supply, loss of agriculture due to

emissions from the power plant, land acquisition and compensation, migration of labour, medical facilities and employment. The Committee discussed the issues raised in Public Hearing and the responses made by Project Proponent. *It was desired by the committee that a detailed action plan along with budgetary provision for all activities to be implemented in response to the issues raised in the public hearing need to be submitted.*

The committee noted that the MOU for sourcing imported coal was only signed on 27.08.2013, whereas the EIA/EMP report was prepared prior to it. Therefore, a detailed clarification was sought from the PP regarding the basis for the predictions on ambient air quality data etc. submitted in the EIA/EMP report. Further, it was also desired that PP should submit details on the coal requirement/annum vis-à-vis the MOU signed for the imported coal for long term. With regard to base line data, the committee noted that the exit velocity reported from stack is 71 m/s which is abnormally high and therefore needs to be relooked into and rework the AAQ predictions.

Further, the committee also sought the detailed hydrology of the area as the River Tel was in close vicinity i.e. about 1.5 km. distance. The PP shall ensure that the quantity of water drawl is within the CEA norms. The committee noted that PP has not submitted permission letter/assurance from Railways for the transportation of coal. This needs to be provided. It was also observed that the documents submitted were not in line with the presentation made on the CSR financial commitments. Hence, an action plan with time frame and budgetary provisions for capital CSR cost @ 0.4% of Project Cost during the construction phase indicating the activities and thereafter annual recurring CSR cost @0.08% of the Project Cost needs to be submitted.

*In view of the above short comings, the proposal was **deferred** for reconsideration after submission of all above documents.*

2.2 1980 MW (3x660MW) Thermal Power Plant of M/s Neyveli Lignite Corporation Ltd. in Ghatampur, Kanpur, Uttar Pradesh – reg. Environmental Clearance

The proposal is for setting up of 1980 MW (3x660 MW) Thermal Power Plant in Ghatampur, Kanpur, Uttar Pradesh by M/s Neyveli Lignite Corporation Ltd. The ToR for preparation of EIA/EMP report was accorded on 28.12.2011. The EIA / EMP report after conducting public hearing was submitted to the Ministry for consideration of environmental clearance. The project proponent along with their environmental consultant, M/s Vimta Labs Ltd., Hyderabad made a presentation and provided the following information:

The total project area is 1886 acres including ash pond area and township. The breakup of land use is 190.19 acres of single crop, and 1694.42 acres as others.

Regarding the status of land acquisition, there was no clarity and commitment provided. As per the TOR issued there were 1032 project affected families. However, there was no mention about the detailed rehabilitation plan. On the contrary, it was informed that the disbursement of compensation for 7 villages is in progress with the approval of the State Govt. and for the 8th village it has not been initiated. *In view of this, the committee desire to know the details of the land use pattern, land acquired, to be acquired, compensation to the affected families etc.* The total project cost is Rs. 14375.4 crores.

There are no national parks, wildlife sanctuaries, biosphere/tiger reserves etc. within 10 km of the plant. There are four reserve forests in the study area viz. Mannjhupur R.F at 3.4 km in the west direction, Chandupur East Block R.F. at 4.0 Km in the west direction, Badanpur R.F. at 4.0 Km in the west direction and Chandupur West Block R.F at 6.0 km in the west.

The coal requirement would be 8.511 MTPA. The Ministry of Coal has allocated Pachwara South Coal Block for the project on 25th July, 2013. The proposal for environmental clearance of the aforesaid coal block was submitted to MoEF and as informed was considered for ToR for preparation of EIA/EMP in the EAC meeting held on 26.11.2013. The coal block involves about 50% of forest land and the proposal for forest clearance was submitted to the concerned DFO, U.P.

The Total water requirement is estimated to be 6275 m³/hr (150.6 MLD), which will be met from River Ganga (seepage water from West Allahabad branch canal near Bidhnu Kasba Village). The permission for water drawl has been obtained from the Govt. of U.P. on 6th June, 2012. *The committee noted that the present proposal for water drawl may affect the agriculture and irrigation of farmers. Hence, alternate options for water drawl shall be explored and the details of conservation of seepage water by lining shall also be submitted. A plan for sustainability of ecology also needs to be submitted.*

Public hearing/public consultation was conducted by the Uttar Pradesh Pollution Control Board held on 23.03.2013. It was noted that the issues raised in the public hearing include ash utilization, employment, pollution of River Yamuna, damage to the crops near by and compensation for the land. The Committee discussed the issues raised in Public Hearing and the responses made by Project Proponent.

The committee noted that Pachwara South Coal Block was allocated for the project only on 25.07.2013, whereas the EIA/EMP report was prepared prior to it. Therefore, a detailed clarification was sought from the PP regarding the basis for the predictions on ambient air quality data etc. submitted in the EIA/EMP report. The characteristics of coal from Pachwara South Coal Block also need to be submitted. The committee also noted that the environmental clearance & Stage-I forest clearance for the coal block will take substantial time and are mandatory as per the policy of MoEF.

Further, the committee noted that detailed MOU for ash utilization has not been submitted. As far as, ash pond area is concerned, it was felt that it needs to be optimized. The ash pond shall be lined by HDPE as the project is in the Ganga Basin and the ash dyke embankment shall be stone pitched. The committee noted the PP did not submit any permission letter / assurance from Railways for transportation of coal. As the project involves 1032 affected families, a detailed R&R plan needs to be submitted. With respect to CSR, an action plan with budgetary provisions for (i) Capital cost @ 0.4% of the Project Cost during the construction phase (ii) and thereafter expenditure towards annual Recurring CSR @ 0.08% of the Project Cost indicating the activities needs to be submitted.

In view of the above short comings, the proposal was **deferred** for reconsideration at a later stage.

2.3 (175 + 3x27) 256 MW CFBC Imported Coal based Thermal Power Plant of M/s Bhushan Steel Ltd. at Meramandali, Distt. Dhenkanal, in Orissa – EC

At the outset, the committee was informed of the directions of closure notice under Section 33(A) of Water (PCP) Act, 1974 & 31A of Air (PCP) Act, 1981 issued by the Orissa State Pollution Control Board dated 19.11.2013 for the integrated steel plant and power plant at the above location (i) to close down the operation of Blast Furnace-II of the expansion project and Cold Rolling Mill forthwith (ii) to close down the operation of Boiler No-I of the new Thermal Power Plant of capacity 256 MW and stop installation activities of another two boilers of this power plant forthwith.

The Committee was also apprised of the complaint received from an NGO of Orissa regarding gross violation of Environment (Protection) Rules, 1986 by M/s Bhushan Steel Ltd./Bhushan Energy Ltd. by starting construction of two power plants at the above location without obtaining prior environmental clearance.

The committee was also informed of the observations of the MoEF Regional Office, Bhubaneswar that the EIA/EMP reports for the two proposed power plants (256 MW and 185 MW) by M/s Bhushan Steel Ltd. and M/s Bhushan Energy Ltd. were prepared for expansion independently without reflecting the cumulative impacts. It was suggested that an EMP on comprehensive study for the units together should be prepared.

In view of the above serious non-compliance/violations and lacunae, the proposal was deferred. The PP shall first comply with all the directions issued and after receipt of compliance report from the Regional Office of MoEF and SPCB, the project could be reconsidered.

2.4 (165+20)185MW CFBC Imported coal based TPP of M/s Bhushan Energy Ltd. at Meramandali, distt. Dhenkanal in Orissa –EC

At the outset, the committee was informed of the directions of closure notice under Section 33(A) of Water (PCP) Act, 1974 & 31A of Air (PCP) Act, 1981 issued by the Orissa State Pollution Control Board dated 19.11.2013 for the integrated steel plant and power plant at the above location (i) to close down the operation of Blast Furnace-II of the expansion project and Cold Rolling Mill forthwith (ii) to close down

the operation of Boiler No-I of the new Thermal Power Plant of capacity 256 MW and stop installation activities of another two boilers of this power plant forthwith.

The Committee was also apprised of the complaint received from an NGO of Orissa regarding gross violation of Environment (Protection) Rules, 1986 by M/s Bhushan Steel Ltd./Bhushan Energy Ltd. by starting construction of two power plants at the above location without obtaining prior environmental clearance.

The committee was also informed of the observations of the MoEF Regional Office, Bhubaneswar that the EIA/EMP reports for the two proposed power plants (256 MW and 185 MW) by M/s Bhushan Steel Ltd. and M/s Bhushan Energy Ltd. were prepared for expansion independently without reflecting the cumulative impacts. It was suggested that an EMP on comprehensive study for the units together should be prepared.

In view of the above serious non-compliance/violations and lacunae, the proposal was deferred. The PP shall first comply with all the directions issued and after receipt of compliance report from the Regional Office of MoEF and SPCB, the project could be reconsidered.

2.5 4x135 MW Coal based TPP of M/s Wardha Power Company Ltd. at Warora Growth Centre MIDC, Warora in Maharashtra - Amendment of EC for correction of factual figures –reg.

Environmental Clearance was accorded by MoEF to M/s Wardha Power Company Ltd. for phase-I (2x135) MW and phase-II (2x135) MW coal based TPPs on 17th July, 2007 and 21st November, 2007 respectively. An amendment to the said environmental clearances was accorded by MoEF on 23rd May, 2013 based on the recommendations of EAC in its 64th meeting held on January, 7-8, 2013, which are extracted as under:

“2.8 4x135MW Coal based Thermal Power Plant of M/s Wardha Power Company Ltd. at Warora Growth Centre, MIDC, Warora, in Maharashtra - reg. Change in source of fuel.

M/s Wardha Power Company Ltd. was accorded environmental clearance for its Phase-I (2x135 MW) and Phase-II (2x135 MW) Coal based Thermal Power Plant at Warora Growth Centre, MIDC, Warora, in Maharashtra on 17.07.2007 and 21.11.2007 respectively.

M/s Wardha Power Co. Ltd. has informed that subsequent to multiple developments including mismatch in the timing of commissioning of power project and coal supply by GMDC, rejection of Forests Clearance to Morga-II Coal Block, the originally planned coal supplies could not materialize. That they have now entered into alternative Fuel Supply Agreement with M/s Western Coal Fields Ltd. on 03.04.2012 for supply of coal and balance required coal will be obtained through imported coal.

M/s Wardha Power Co. Ltd. has therefore requested for taking note of the above information and oblige for necessary action.

M/s Wardha Power Co. Ltd. made a presentation and provided the following information:

Presently M/s WPCL is operating 4x135 MW Coal Based TPP at Warora Growth Centre, MIDC Warora, in Chandrapur District, in Maharashtra. Environmental clearance for Phase-I (2x135 MW) was obtained in July, 2007 and for Phase-II (2x135 MW) in November, 2007 respectively. That from the first year of operation itself, the plant has achieved 100% Fly Ash utilization. Total coal required as per EC is 2.23 MTPA, which will be now be 2.525 MTPA at Domestic coal 78%: Imported coal 22% blending ratio. That FSA with M/s WCL has been signed for 1.625 MTPA, with GCV of 4600 Kcal/Kg, Ash content less than 36%, Sulphur content 0.6%. For imported coal FSA has been signed with Ask RE Ltd., Hongkong on 12.10.2012 for 0.9 MTPA with GCV of 5000 Kcal/Kg, Ash content not exceeding 22% and Sulphur content of 0.4%. That hybrid ESP with Bag Filter as given in EC will be installed.

M/s WPCL also informed that coal requirement will be now 1912 TPD per unit as against earlier envisaged 1800 TPD per unit. Average sulphur contents will be now 0.5% as against earlier envisaged at 0.6%. That the change in coal specification will not have any additional impacts on environment with reference to SO₂, other pollutants and ash generation.

The Committee noted the request was of the view that the coal block allocated has now been declared in the No-Go area which is still being deliberated by the Central Govt. In view of this the Committee decided that the request for change in fuel source can be agreed provided the project proponent establishes that the imported coal is an additional (actual coal) coming to the country. In ascertaining so, the project proponent shall submit documents to establish that Bill of imports (direct imports) for imported coal is meant for this power plant and the records are duly maintained for further verification.”

The PP vide letter dated 3rd June, 2013, had informed that although the coal requirement of 1912 TPD per unit (3824 TPD for two units) as against earlier envisaged 1800 TPD per unit (3624 TPD for two units) has been correctly recorded in the above minutes of EAC, the amendment letter dated 23rd May, 2013 issued by MoEF continues to mention the coal consumption of 3600 TPD instead of 3824 TPD approved by EAC which seems to be a typographical error. It was also requested to amend point no. 5 of the said amendment letter as point no. 4 as it also seems to be a typographical error.

The committee noted that the above amendments/corrections requested in factual figures are purely typographical errors and be corrected in the amendment letter dated 23rd May, 2013 issued by MoEF.

2.6 Expansion by addition of 2x120 MW (Unit-9&10) Phase-II CPP of M/s NALCO Ltd. at Angul District, Orissa- reg. Amendment of EC for expansion of Ash pond (Ash Pond No. 4, ash mound and dyke raising)

Environmental clearance was accorded by MoEF to M/s NALCO Ltd. for 2x120 MW (Unit-9&10) Phase-II CPP of M/s NALCO Ltd. at Angul District, Orissa on 30.07.2004. The PP has requested for amendment in EC for expansion of ash pond i.e. ash mound & dyke raising and construction of Ash Pond No. 4. The PP has made a presentation and provided the following information:

The EC accorded stipulates that no additional acquisition of land would be permitted including ash disposal and the ash generated should be used in a phased manner as per provisions of the Notification on fly ash utilisation issued by Ministry on 14th Sept'1999 and its subsequent amendments in the years 2003 & 2009.

The Unit#9 was commissioned on 23/08/2009 and the Unit#10 was commissioned on 27/08/2010. NALCO has not acquired any additional land after 30.07.2004 for ash disposal in particular. NALCO has made all efforts to increase ash utilisation. In FY 2012-13, the ash utilisation was 66.07 % and in FY 2013-14 (upto Oct'2013), it is 68.0%. In Unit 7 to 10, dry ash collection facility with High Concentration Slurry Disposal (HCSD) System has been implemented. The project for back filling of coal Mines void is under implementation.

The ash disposal from Units-1 to 6 is by wet disposal to ash pond and from Units - 7 to 10 is by dry ash collection with HCSD disposal. The total area of the Ash Pond is about 800 acres and was constructed in 1986. Initially it was a single pond of 10 m height (upto 90 MRL) and was the starter dyke constructed with earth only. This pond had shaft discharge arrangement to drain out the supernatant water and garland drain was provided all around the pond. Subsequently after this pond got filled up, this one pond system was converted to 3 pond system in 1992-93. The shaft discharge system was abandoned and the supernatant water was allowed to escape from the flush escape and to pass through the intermediate channel (called Pond-3). Ash Pond-1&2 were meant for storage of ash. A channel between Pond-I&II is used for carrying decanted water for 100 % treatment, recycling and reuse (is termed as Ash pond-III). The Ash Pond dykes were raised from 90 to 107 MRL in stages with ash core design with upstream raising method. The first phase dyke raising works were taken up from 90 to 100 MRL in 3 stages starting from the year 1992. The second phase dyke raising was from 100 to 104 MRL with a berm of 7 m at 100 MRL in 2001. The 3rd phase dyke raising was done from 104 to 107 MRL in 2008. The 4th Phase dyke raising is being done in Ash Pond-1 only from 107 to 110 MRL. All the designs of Phase wise raising has been carried out by reputed institutes like IIT, Chennai and II Sc. Bangalore. The designs have been approved by Director of F&B, Govt. of Odisha before start of construction in each stage.

Currently the Ash Pond-I is completely filled upto 107 MRL. Dyke raising from 107 to 110 MRL is in progress with 80% construction completed. One Section of the pond Dyke raising upto 110 MRL is completed and ash discharge is being done. The Ash Pond-II Dyke height is upto 107 MRL. This pond is at present completely filled and most of the area is covered by Kasatandi (*Saccharum Spontaneum*).

NALCO has received CTE for construction of ash mound over ash pond-2 vide letter No. 2656/Ind-II-NOC-5671 dtd. 19-02-2013. The design has been provided by II

Sc. Bangalore and involves earth covering with elaborate drainage system to cater to run off water even with cloud burst condition. This system is equivalent to present ash mound of NTPC, Dadri, U.P. This ash mound is to be constructed over Ash Pond-2 where the dyke height is up to 107 MRL and which is at present completely filled up. The ash for the mound is to be evacuated from Pond-1 thereby creating space for ash disposal in Pond-1. Construction of ash mound has not yet started. This will be started only when requirement of additional space for ash disposal is necessary.

IISc Bangalore has done a Pre-feasibility study and have established the feasibility of raising the dyke height of Ash pond-1 & 2 upto 113 MRL in 2 stages of 3 mtr each. The design for dyke height raising from 107 to 110 MRL has been provided by IISc. Bangalore and vetted by IIT, Chennai who was appointed by Govt. of Odisha. The permission from OSPCB was accorded for raising the Dyke height from 107 to 110 MRL vide letter No.664/Ind-I-Con-235 dt.11.01.2013. for Ash Pond-1.

On evaluation of space available for ash disposal, OSPCB has restricted the CPP capacity of NALCO to a generating capacity of only 7 Units (840 MW) in the CTO that is issued for a limited period till 30/04/2014. In light of this, space enhancement for ash disposal and enhancing ash utilization has been NALCO's major thrust area. EC was accorded by MoEF on 05/09/2013 for Coal mine void filling in lean slurry mode with 100% water recycling, and the project implementation is in full swing. The EC granted for coal mines void filling is for 1 year on trial basis after which NALCO needs to submit the compliance report of the EC conditions for further extension of the EC by MoEF, GOI, New Delhi.

NALCO has also received CTE for Construction of Ash Pond-4. The construction work is in progress(about 80% complete) which shall only be used for disposal after clearance from the Apex court. It is of importance to NALCO for higher ash utilization during dyke construction and disposal in High Concentration Slurry Disposal(HCSD) mode.

The data of ash generation and the time period for which ash disposal can be made is as follows.

Ash Generation Data

- a. Considering full production of the Aluminum Smelter plant, Captive Power Plant(CPP) requires to run minimum of 8 Units Generating 960 MW
- b. Considering Specific Coal consumption of 0.83Kg/Kwhr Coal consumption = 19123 MT per Day
- c. Considering 43 % Ash content in coal Total Ash Generation = **8223 MT per Day**
- d. Dry Ash Utilisation from Plant for Brick manufacturer/ readymix/ asbestos = 800 MT per day
- e. Balance quantity of ash to be disposed is 7423MT per day (or equal to 6748 M³ or equivalent to about 1125 truck load of ash per day)

Space Availability Data

- a. The Ash pond-1 with dyke height raised from 107 MRL to 110MRL can cater to ash disposal for 7 months from October'2013 i.e upto April'2014
- b. Ash Mound:-
 - i The total ash that can be stored in the mound was estimated to be 65 lakh **M³** in two phases. (Phase-1:- 35 lakh M³ & phase 2:- 30 lakh M³)
 - ii The total mound construction can be completed in around 4 years
 - iii Construction of ash mound shall lead to creation of space in Ash Pond-1, which will be utilized for ash slurry disposal. Discharge to Ash Pond-1, can be resumed only after evacuation of sufficient quantity of ash from one section out of the two sections of the pond.

Mines Void Filling

- a. Mines void filling project is under progress which is likely to be trial commissioned by 30/06/2014, if there will be no obstruction by villagers.
- b. The pipe line for the project passes through 12 villages in the NALCO acquired land. Villagers are creating hindrance to work on regular basis. This is a major road block for completion of the project. Hence there is every likelihood of slippage in the completion date indicated above.
- c. Full stabilization of the system may take upto 1 year after commissioning.
- d. EAC (TPP) shall be approached after 1 year of start of ash disposal with all analysis data/reports indicated in the EC for subsequent dumping. It may be noted that MCL is attending EAC(Coal mining) meeting scheduled on 13/12/13 before giving final clearance to us although, we have received Environment clearance from EAC(TPP).This may further delay the project.
- e. Life of mines void shall be 6 years. However the present plan for Ash disposal & utilization include all the three projects namely (i) Ash Pond-IV, (ii) Ash Mound over Ash Pond-2, (iii) Ash pond dyke raising of Pond-1, along with the coal mines void filling in lean slurry mode.

The work related to construction of Ash Pond-IV was awarded at total contract value of Rs 21.71 Cr and work for an amount of about Rs 17.4 Cr has been completed upto end November'2013. Work to the tune of about 80% has been completed. About 52 persons from the land affected families were given employment by NALCO at the time of acquisition of the land prior to 2004. Incidentally the Honbl'e Supreme Court permitted the company to raise further construction of Ash Pond-IV vide order dated 28/05/2013. The trial disposal to coal mines void can start by June'2014 which is uncertain considering severe hindrance by villagers. Hence, to tide over the critical ash disposal scenario in spite of all efforts in ash Utilization/disposal front, requirement of construction of Ash Pond-IV is essential to keep Captive Power Plant of NALCO running. The Power produced in the CPP is supplied exclusively to the Smelter Plant of NALCO for production of aluminum. Stoppage of CPP will lead to production stoppage of aluminum in smelter, leading to

total stoppage of operation of the company. This will be a colossal loss to NALCO, a Navaratna company and to the Nation.

The committee noted that the MoUs/agreements for fly ash utilization were not submitted and sought the same. In order to prevent dust emissions, grassing should be done on the ash mound. The long term strategy for revamping the existing CPPs with new super critical CPPs shall also be submitted. Regarding the construction of ash mound & dyke raising and construction of Ash Pond No. 4 without prior approval of MoEF, the PP was of the understanding that prior approval of MoEF for the same may not be required as the ash pond is not listed in the schedule of EIA Notification, 2006. However, MoEF was also informed of the said expansion of the ash pond.

*Based on the information and clarifications provided, the Committee **recommended** the above amendments for expansion of ash pond i.e. ash mound & dyke raising and construction of Ash Pond No. 4 only after MoU / agreement for fly ash utilization is submitted to MoEF. Also in order to make public aware about construction of Ash Dyke 4 and Mound on Pond 2 as also dyke raising of Ponds 1 and 2 which were not discussed during Public Hearing and as such the PP should put up the information on Company's website as also give publicity to the issue by publishing the same in local Newspapers.*

2.7 2x660 MW coal based Supercritical TPP of M/s Lanco Vidarbha Thermal Power Ltd. At village Mandva, in Wardha Taluk & District, in Maharashtra - reg. Review of Environmental Clearance in compliance to the order of High Court of Bombay

The proposal was earlier discussed in the 1st and 4th meetings of the re-constituted EAC held on September 19-20, 2013 and November 18-19, 2013 respectively which is extracted as under:

“M/s Lanco Vidarbha Thermal Power Ltd. was accorded environmental clearance for its 2x660 MW Coal Based TPP at village Mandva, in Wardha Taluk & District, in Maharashtra on 24.02.2011.

A PIL was filed in the High Court of Bombay at Nagpur bearing PIL No. 78/2010 challenging the public hearing conducted by the Maharashtra Pollution Control Board on 17.09.2010. The PIL was disposed off on 18.11.2011 with directions to conduct a second public hearing. The extract of the order of the High Court is given as under:

“1. By this petition, which if filed in public interest, the petitioners have challenged the public hearing conducted by Respondent no.3 – Regional Officer, Maharashtra Pollution Control Board (MPCB) under a notification issued under Rule 5 (3) of the Environment (Protection) Rules, 1986 for granting environment clearance to certain new projects or activities covered by the said notification. The hearing, which is challenged, took place on 17.09.2010. According to the petitioners, since hearing was vitiated by ruckus since the Regional officer, MPCB did not hear all the villagers, who wanted to raise objections and even when the villagers wanted to object, could not express their objections since they

were hustled out of the meeting and suppressed by officers of respondent no.6-Company from expressing themselves.

2. After this petition was filed on 22.12.2010, the Ministry of Environment and Forests (MoEF) granted Environmental Clearance on 24.02.2011 and the respondents acted on the Environmental Clearance and started developing the site for the purposes of setting up of the Coal Based Thermal Power Plant. Apparently, no stay was granted by this Court against the Environmental Clearance nor was any injunction granted by the Court restraining respondent no. 6 from carrying out construction.

3. According to Mr. Mandlekar, Learned counsel for the petitioners, hearing was vitiated on account of several facts, which are set out in paragraph 8 of the petition. In the grounds, it is contended that the hearing was conducted improperly, arbitrarily, unfairly; the respondents used muscle power against the poor villagers; the Police Officers present at the hearing openly threatened the villagers and directed not to speak against the project; adequate notices were not given in the newspapers and after hearing only 14 persons, the public hearing was abruptly closed after the goons hired by the respondents created ruckus and villagers were brutally beaten. A First Information Report was also lodged against an official of respondent no.6-Company. We are informed that subsequently trial has been compromised and settled by the complainant. According to the petitioners, majority of the people were against the project and public hearing was forced to close. The objections were not answered and no satisfactory answers were given. Neither the attendance register was maintained nor it was sent along with proceedings of the public hearing. Minutes of the public hearing were not prepared in Marathi nor were they read. Thus, according to the petitioners, the hearing was a farce. It has defeated the purpose of the said hearing and accordingly, Environmental Clearance granted by the MoEF in the hearing is also vitiated.

4. On behalf of respondent no.6-Company, there is a complete denial of the allegations. According to respondent no. 6- Company, they had no part to play in the grant of permission or otherwise to the villagers for speaking at the hearing and they did not obstruct any villager from speaking. The Regional officer of the MPCB, who conducted the hearing has stated that the hearing was done in accordance with law. Those who wanted to speak were allowed to speak. According to the MPCB, the Minutes of the proceedings were recorded and submitted to the MoEF for consideration. The entire proceedings were videographed and sent to the MoEF and are still available for screening.

5. At this juncture, we would like to note that there is a serious dispute of ruckus at the hearing. It is not disputed that only 15 people spoke and about 190 written representations were submitted to the MPCB.

6. It is obvious from the circumstances of the case that there is a hue and cry raised about denial of opportunity of being heard to the villagers by MPCB. Having regard to the number of villagers who attended the meeting, it is indeed quite possible that there was ruckus at the meeting and that everybody, who wanted to have their say, could not express themselves. It is not disputed that a

First Information Report was lodged regarding the ruckus at the meeting though it is equally not disputed that later on the matter has been settled before the Court and no one has been prosecuted. There is no doubt that the person who filed the First Information Report later on could not identify who injured him. This, however, clearly suggests that the public hearing was not peaceful and, in any case, was not marked by solemnity in which such a public hearing should be conducted.

7. We have no doubt that merely because the Rules do not contemplate a public hearing by a Court, there is no reason to assume that the hearing should not be held in an atmosphere of solemnity, where the grievance of the villagers can be taken into account and considered properly.

8. Without going further into the matter, we are of the view that the public hearing was not conducted as it should have been. Indeed, Mr. Bhat, learned counsel for respondent no.6, submitted that respondent no.6 has no objection if public hearing is conducted again so that the grievance of the villagers that they were not heard may be removed.

In the circumstances, we are not inclined to go through the videographed proceedings and are of the view that the public hearing should be conducted again.

9. Thus there is no manner of doubt that the order passed in pursuance of the public hearing which was not conducted properly is vulnerable. It may be noted that the Environmental Clearance contemplated by the Rules is not based solely on the objections at the public hearing. The Environment (Protection) Rules, 1986 provide that the Environmental Clearance may be granted on the basis of the report of the Project Appraisal Committee constituted by the Central Government after detailed scrutiny of the application for setting up project or initiating any activity. The Rules also contemplate taking into account all final Environment Impact Assessment Reports and in addition, a report prepared on the outcome of public consultation including public hearing. While the public consultation is, by no means, a minor requirement is equally true that there are other factors on which such a clearance is based.

10. In the present case, the Environmental Clearance has been granted also on the basis of the other factors such as appraisal by the Expert Environment Appraisal Committee and the outcome of the public hearing, which we have seen was not conducted satisfactorily. The Environmental Clearance was granted on 24.02.2011 and has been acted upon by respondent no. 6.

11. In the circumstances, we are of the view that it would serve interest of justice if the impugned Environmental Clearance is allowed to stand pending the outcome of the public consultation at the public hearing proposed to be ordered by us. In other words, in the circumstances of the case, we are of the view that it would serve the interests of justice if a post decisional public hearing is given to the villagers, in accordance with rules. The Regional Officer, MPCB who conducts the public hearing shall ensure that the hearing takes place in an atmosphere of solemnity and seriousness so that it is effective. We are not impressed by

submissions made on behalf of the MPCB that the Rules contemplate that the hearing should take place in the presence of all the villagers who have gathered. It may be recalled that in the meeting held in the present case, there were about 5000 villagers, who were present and it is hard to imagine the Regional Officer being capable of ensuring a quiet, peaceful and solemn hearing with such large numbers.

12. In the circumstances, we direct that the Regional Officer may, without denying access to any member of the public for the hearing, shall make an enclosure of an adequate area where the persons, who have given their names in advance as desirous of being heard, are called in the presence of other villagers. If necessary, the Regional Officer shall make arrangement for a public address system so that those who are gathered outside the enclosure, which we are informed have been like a pendal, may hear the proceedings.

The Regional officer shall ensure that there is a controlled entry into the smaller pendal where he actually conducts hearing while ensuring that those outside the pendal can follow the proceedings through public address system or video system and further that those outside the smaller enclosure can enter and sit in the pendal by turns.

The Regional Officer shall issue fresh public notice inviting objections and notifying the villagers that in addition if they wish that their representatives, if any, be heard their names may be given at least 24 hours in advance and each objection is heard properly regarding his objection to the project.

13. Having regard to the circumstances of the case, we consider it appropriate to direct respondent no.2-Collector and respondent no.4-Superintendent of Police, Wardha to supervise the arrangements and remain present or depute some responsible officer to remain present during the hearing. As it was done before, the proceedings shall be videographed and report of the proceedings shall be countersigned by the Collector and the Superintendent of Police or their representatives.

15. Mr. Mandlekar, learned counsel for the petitioners, empathetically urged that in the circumstances of the case the Environmental Clearance should remain stayed for the reasons indicated earlier.

16. We are of the view that such a stay is not necessary to serve interest of justice. Mere building and construction activities which are going on at this stage cannot be said to have an adverse impact on the environment *per se* particularly since the commissioning of the power plant is long way off. Mr. Bhat, learned counsel for respondent no.6, states that the Power Plant is not due for commissioning before 2014. Therefore, in the meanwhile, there is sufficient time for conducting the public hearing and for respondent no.1 Ministry to review the environment clearance, if necessary, in accordance with law. It is also clear that the respondent no.1- Ministry would be entitled to review the earlier Environmental Clearance in toto or in part depending on the outcome of the public hearing.

Needless to say that any activity undertaken by respondent no.6 in pursuance of the impugned Environmental Clearance shall be at its own risk and subject to final outcome of the proceedings.

17. Mr. Mandlekar, learned counsel for the petitioners further states that the Project Appraisal Committee should be free to take a decision afresh after considering outcome of the public hearing. Needless to say that there is no restrictions on either Project Appraisal Committee or the Ministry or any other the authorities. They all are free to consider entire matter afresh, in accordance with law.

Rule made absolute in the above terms. No order as to costs”.

In compliance to the Order of the Hon’ble High Court the matter was placed before the EAC for necessary requirements.

The Committee noted that public hearing was re-conducted by the Maharashtra State Pollution Control Board (MSPCB) on 20.06.2012 and its proceedings submitted to the Ministry vide their letter dated 11.09.2012. The Ministry noted that the document received from the Maharashtra State Pollution Control Board was incomplete w.r.t. the proceedings of the public hearing. The same has since been made available now.

M/s Lanco Vidarbha Thermal Power Ltd. made a presentation on the compliance of the Order of the High Court and the action taken therein.

Representatives of the MSPCB was also present. The Regional Officer, MSPCB clarified that that the public hearing was conducted smoothly and in accordance with the provisions of EIA Notification 2006 and was concluded as per law.

The Committee was also shown randomly the video of public hearing of the re-conducted public hearing. It was noted that the video recordings of the public hearing comprises of 13 CDs as the proceedings started at 11.55 am till 1.05 am on 20.06.2012 to 21.06.2012 i.e more than 13 hours. The Committee also perused through the issues raised and the responses made by M/s Lanco Vidarbha Thermal Power Ltd.

The Committee noted that some of the replies made, which has relevance with the public issue at large need to be appropriately addresses for which an effective action plan is required to be formulated. *The Committee therefore decided that M/s Lanco Vidarbha Thermal Power Ltd. shall prepare an action plan for implementation with requisite details and submit the same at an early date and not later than one month’s time. Thereafter the review can be again taken up on submission of the same. The matter was accordingly deferred.*

On submission of the information sought, the matter was again placed before the EAC for its re-consideration in the 4th meeting held in 18 - 19 November, 2013.

The Committee noted that although the PP has submitted an action plan, it does not have any budgetary provisions. Hence, the action plan shall be accordingly revised and submitted for further consideration in the next EAC, if submitted.”

On submission of the information sought above, the matter was again placed before the EAC for its re-consideration.

The PP made a detailed presentation on the expenditure and budget with respect to the issues raised by public at large in public hearing dated 20th June’2012.

*Based on the information and clarifications provided, the Committee **recommended** for revalidation of EC accorded earlier subject to the compliance of the CSR activities as proposed.*

2.8 2x250 MW Barauni Extension Thermal Power Project adjoining the existing unit of M/s Bihar State Power Generation Company Ltd. at BTPS village Barauni, District Begusarai, in Bihar – EC.

The project proponent requested to defer the proposal for next EAC meeting and was accordingly deferred.

2.9 1320 MW (2x660 MW) Super Critical Coal Based Thermal Power Plant of M/s Dwarkesh Energy Ltd at Villages Torniya, Chhippipura and Rampuri, Tehsil New Harsud, District Khandwa, in Madhya Pradesh – EC.

The proposal is for setting up of 1320 MW (2×660 MW) Super Critical Coal based Thermal Power Plant at Villages Torniya, Chhippipura and Rampuri, Tehsil New Harsud, District Khandwa, MP. The project was accorded TOR for preparation of EIA/EMP report on 26.07.2011. The EIA / EMP report after conducting public hearing was submitted to the Ministry for consideration of environmental clearance. The project proponent made a presentation along with its consultant M/s. JM EnviroNet Pvt. Ltd., Gurgaon and provided following information:

The land required for the proposed project is 935 acres for Main Plant, Green Belt & Ash Dyke, of which, 33.98 acres is Government Land and the remaining 901.02 acres is Private land. The land required for Township will be 100 acres and for Corridors for ash slurry, raw water & coal will be 155 Acres, which is within the CEA Norms. About 50% of the total land has been acquired. The co-ordinates of the site will be Latitude 21°59’27.58” to 22°1’3.21” N and Longitude 76°45’35.81” E to 76°46’49.61” E. R&R of PAPs shall be completed in a time bond manner.

There are no National Parks, Wildlife Sanctuaries, Heritage Sites, Tiger/Biosphere reserves etc. within 10 km of the project site. Cost of the Project will be Rs. 7354 Crores. An amount of Rs. 450 Crores is allocated as the capital cost of EMP and 18 Crores/Annum as the recurring cost of EMP.

Domestic Coal requirement will be 6.9 MTPA and application has been submitted to MoC. However, imported coal from Indonesia will be used till domestic

coal linkage is obtained. Imported coal requirement will be 5 MTPA. MoU has been signed with M/s. Adani Enterprises Limited for Indonesian Coal. All the predictions were made on the domestic coal for worst case scenario. Ash and Sulphur content in the imported coal will be 8-15 % and 0.45-0.9 % respectively. Gross calorific value for the imported coal will be 5000 kcal/kg (ADB). About 0.6 MTPA of Fly Ash and 0.14 MTPA of bottom ash will be generated. Stack height will be 275 m. The AAI has issued No objection for 275 m stack. Coal from Indonesia will be brought to Dahej/Hazira Port in India, from where it will be transported to the site by Rail. The proposal to import 5 MTPA coal from Dahej/Hazira/Mundra Port on West Coast for the project situated near Barud station in Itarasi-khandwa section of West Central Railway (WCR) was agreed/permitted to by the WCR on 19.09.2013 as per logistic policy of Railways. MoU for Fly Ash utilization is signed with M/s. JK Lakshmi Cement Ltd. to comply with the MoEF norms. Bottom ash will be disposed to ash pond in semi dry form. Ash pond/dyke will be lined with permeability of 10-6 mm/sec.

Water requirement for the project will be 37.2 MCM per annum, which will be sourced from Indra Sagar Reservoir (on Narmada River) which is 8 km from the proposed site. Permission for drawl of 37.2 MCM of water has been granted by Water Resource Department, Govt. of M.P vide its letter dated 26-09-2013. As directed in the said letter, an agreement for supply of water was signed on 02.12.2013 by the PP with the Executive Engineer, Narmada Development Authority, Division No. 25, Narmada Nagar, Punasa, District Khandwa, M.P. Natural Draft Cooling Tower will be installed. On the issue of sustainable water availability, the PP informed the Committee that the study was conducted by M/s. Design Studio Ltd. They have analyzed that against the water requirement of 37.2 MCM for the project, during the lean season, the lowest level of Indra Sagar Reservoir recorded is 243.67 M (as per 2011 data). The wastewater generated will be treated and near to Zero Effluent discharge will be practiced.

Public hearing for the project was conducted by Madhya Pradesh pollution Control Board on 31-08-2012. It was noted that the major issues raised were regarding environmental impacts like increase in atmospheric temperature, dispersion of the dust, impact on the water level of the River due to the project, CSR activities and compensation for land acquired. The Committee discussed the issues raised in Public Hearing and the responses made by Project Proponent. In response to the issues of public hearing, the PP informed that an amount of Rs. 46 Crores has been earmarked towards the CSR activities. Necessary training and education will be provided to one person of each family. Land acquisition is being done on mutual consent generally higher than circle/market rate.

The committee noted that the R& R plan has not been submitted by the PP and sought the same. The surface drainage pattern of the site shall not be disturbed due to the proposed TPP and the plant layout may be revised accordingly, if required. The Rivers nearby shall be protected, without any dumping and if required, the embankment of the Rivers may also be raised. Considering the location of the ash pond, the committee recommended that the relocation of ash pond is the preferred option and the feasibility of same shall be submitted. The ash pond shall also be HDPE lined and the ash dyke

embankment shall be stone pitched. Further, thick green belt shall be developed around the ash pond.

The committee observed that the toposheet submitted by the PP shows that the distance of RF from the project site is around 7 km whereas the letter of DFO states it to be 700 m. Hence, the same shall be got verified from the DFO. While concluding the Public Hearing proceedings four conditions were recommended which includes 100% fly ash utilization from Day 1. The committee recommended that all the four conditions shall be complied by the PP and an action plan in this regard shall be submitted.

The committee also recommended that Storm water shall only be discharged through a guard pond and regular analysis shall be done by the PP. During the dry season, zero discharge (including for green belt development) shall be strictly implemented. A plan for treatment of cooling tower blow down shall also be submitted. It was observed that the sulphur balance needs to be verified and impacts predicted accordingly. A firm commitment/approval for the handling of coal in the Port also needs to be submitted.

In view of the above short comings, the proposal was **deferred** for reconsideration at a later stage.

2.10 380 MW Gas based Combined cycle Power plant of M/s GAIL India Ltd. at village Vijaipur, in Guna Distt., Madhya Pradesh - RE-CONSIDERATION FOR EC.

The Committee noted that none of the members has received the documents regarding the proposal and hence, the proposal was deferred for consideration in the next EAC.

2.11 2x660 MW Imported Coal Based TPP of M/s SJK Powergen Ltd. at village Lalapur, in Shahdol Distt., in Madhya Pradesh - RE-CONSIDERATION FOR EC.

The proposal was earlier discussed in the 46th, 64th and 1st Meetings of the EAC held during April 9-10, 2012, January 7-8, 2013 and September 19-20, 2013 respectively, wherein it was deferred due to inadequacy of information requisite for appraisal.

The project proponent in the earlier meetings gave a presentation and provided the following information:

“The proposal was earlier proposed based on domestic coal but due to non-availability of the same, it has been decided to go ahead with imported coal from Indonesia for an interim period until domestic coal is available.

The present proposal is for setting up of 2x660 MW Supercritical Imported Coal Based Thermal Power Plant at village Lalpur, in Sohagpur Taluk, in Shahdol

Distt., in Madhya Pradesh. Land requirement will be 700 acres, of which 163 acres is Govt. land (chote jhar ka jungle), 527 acres is private land and 10 acres is revenue land. Stage-I forests clearance has been obtained for diversion of 66.294 ha of revenue forest land. The co-ordinates of the site are located within Latitude 23⁰15'50"N to 23⁰17'10" N and Longitude 81⁰28'12" E to 81⁰30'20" E. Imported coal requirement will be 4.72 MTPA at 85% of PLF and will be obtained from Indonesia, Kuansinglnti Makmur (KIM) Coal mines and PT Borneo Indobara (BIB) Coal mines. MoU has been signed with M/s GMR Coal Resource Pvt. Ltd, Singapore. Ash and sulphur contents in imported coal will be 7.5% and 0.59% respectively. Total ash generation will be 0.356 MTPA. Fly ash will be supplied to M/s ACC Keymore Cement Works of Katni, MP. Ash pond area will be 240 acres and co-ordinates of the ash pond site is located within Latitude 23⁰15'50"N to 23⁰16'57" N and Longitude 81⁰29'1" E to 81⁰30'20" E. HCSD is being envisaged for disposal of ash from power plant. Twin flue Stack of 275m shall be provided. Induced Draft cooling system shall be installed. Water requirement of 34.69 MCM will be sourced from the River Son through a pipeline at a distance of about 2.5km from project site. Permission to draw water has been obtained from the Govt. of Madhya Pradesh and the Central Water Commission. Water will be drawn upstream of Bansagar Dam in River Son. Sarphanala (a seasonal nala) is located at 0.2 km distance from the project site. There are nine reserve forest blocks within 10 km of the study area of the project site. There are no National Parks, Wildlife Sanctuaries, Heritage Sites, Tiger/Biosphere reserves etc. within 10 km of the site. Public Hearing was held on 08.10.2009. Cost of the project will be Rs 8000.0 Crores.

In **46th meeting**, the Committee noted that land has been optimized from 950 acres to 700 acres in order to reduce the area of forest land (Jhudpi jungle). It was also informed that proposed ash pond has been relocated further away from the River Sone. That the colony (township) has also been removed.

The project proponent also informed that their intention for installation of Assisted Spray Air Cooled Condensers is under serious examination.

The Committee had also discussed the issues raised in the public hearing held on 18th December, 2009 and the responses provided by the project proponent. The major issues raised were regarding unemployment of local youth and provision of employment especially to land losers and educated youth; pollution due to stone crushers in the area; educational facilities; request for non-disposal of fly ash in Son river or Sarphanallah as these are sources of drinking water for the villagers; regular monitoring of air and water, general pollution, plantation of trees, provisions of drinking water, electricity, hospital and roads. The project proponent also informed that there are no litigation in any court of law pertaining to the project.

The Committee also discussed the reply given by the project proponent to the written communication received during the public hearing.

The Committee noted that even though water allocation appears to be in place, a detailed analysis on the water availability during lean season, taking into account the flow available in Sone river, (considering the riparian needs) and the storage capacity for meeting the lean season period, need to be submitted.

The Committee also noted that transportation of coal and associated impacts including coal handling at ports and railway rolling stocks availability etc. need to be substantiated with available study reports /materials / data etc.

It was also observed that the study area has Schedule-I species including Sloth Bear for which conservation plan should be prepared for immediate implementation.

In view of the missing gaps and requisite information sought as above, the Committee decided to defer the project for reconsideration on receipt of following information:

- i) Detailed Action plan for implementation on relevant issues / concerns raised in Public Hearing along with response made and the rough budgetary allocation shall be prepared.
- ii) Geological map of the plant area shall be furnished;
- iii) Location of additional ash pond details shall be provided;
- iv) MoU for Fly Ash Utilisation signed with contracting parties shall be submitted;
- v) Transportation of coal and associated impacts / barriers, including coal handling capacity at Ports and railway rolling stocks availability shall be studied and report submitted;
- vi) A copy of R&R plan to be submitted.
- vii) CSR Action Plan shall be revised and financial break up activity wise along with firm commitment shall be submitted;
- viii) Detailed analysis on the water availability during lean season taking into account the flow available in Son river (considering the riparian needs) and the storage capacity for meeting the lean season requirement shall be prepared and report submitted; and
- ix) Wildlife Conservation Plan drawn in consultation with the office of the Chief Wildlife Warden for immediate implementation shall be prepared and submitted.

On submission of the clarification, the matter was again placed before the Committee during the **64th meeting** of EAC.

The project proponent informed that imported coal from own mine in Indonesia will be brought to Vizag Port, and transported to TPP site by rail, which is about 900 Kms.

The project proponent informed that a barrage will be constructed at a distance of about 2 Kms from the TPP site. It was however clarified that the barrage will entail no submergence as such as the same is being proposed on high banks of the river for holding excess monsoon water for use of TPP during lean season and that mean minimum flow of river required will be maintained. It also stated that Bansagar Reservoir is located at about 150 Kms downstream.

The Committee observed that more detail information such as impact on other competing sources of water downstream of the proposed barrage and detail water

availability for the proposed TPP need to be established along with detail analysis on the adverse impact due to water storage (barrage) on fauna flora. The Committee also decided that the project proponent shall satisfy the Committee that Barrage will have no significant adverse impact on livelihood of people downstream. It was also decided that approval of the CWC, as may be applicable, shall also be submitted for records.

The Committee also noted that the information provided on land use pattern in the study area shall be revisited; preferably using IRSA satellite maps and R&R plan shall be submitted. That while formulating CSR, the methodology adopted and the issues and activities studied/ examined shall be clearly indicated.

In view of the shortcomings as pointed above, the proposal was deferred for re-consideration at a later stage. It was also decided that in the information as stated above may be furnished timely, so that the matter can be placed in the fourth coming meeting for re-consideration”.

On submission of the above, the matter was again taken up during the meeting held on December 6, 2013.

The project proponent stated water from Sone river is not proposed to be drawn during non monsoon months i.e October to May. That the area dependant on Sone River downstream of proposed Barrage is about 252 sq.km. Total Catchment area of Sone River and its tributaries upto Banasagar Reservoir is about 12159 sq.km. Catchment area of Sone River upto proposed Barrage location is about 5091 sq.km. Balance of catchment area from downstream of Barrage upto Banasagar is about 7068 sq.km. Thus, out of 7068 sq.km of Catchment below the Barrage, an area of 6816 sq.km is taken care of by the various major rivers flowing into Sone River. The remaining area is 252 sq.km (i.e 7068 sq. km – 6816 sq.km).

Out of 252 sq.km, about 112 sq.km is covered by reserved forests and no agricultural or other activities are permitted in these areas. The balance land is about 140 sq.km allowing for villages/homesteads, open shrubs etc. The cultivable area may work out to say 80 sq.km, that is 8000 Ha. The terrain being rocky in nature, not more than one crop is raised, that too availing the rains.

As per the latest census figures village wise the population count in this area of 140 sq.km is 32000. Thus for a population of 32000, adopting a domestic water requirement of 50 litre per capita per day, the quantum for the three dry months will work out to 450000 litres (450 cum). Whereas, it is programmed to release 0.26 MCM per month downstream of barrage to cater to the drinking water as well as any agricultural needs for the village clusters in the 140 sq.km area. This figure has been considered in the simulated reservoir routing carried out for 10 years using the inflow hydrological data available.

With regard to information on land use of the area downstream of the Barrage, it was stated that the extent of land area downstream of the proposed Barrage, depends on water sourcing from Sone River. The classification of the total area of land in the District Shahdol between various uses is summed up as: Total Geographical area is about 5,61,000 ha. Out of this total area forest cover is about 2,27,800 Ha

(constitutes 40%). Out of this balance area is about 3,33,200 Ha. Whereas, land for non-agriculture uses is about 44,600 Ha. Barren and un-cultivable land is about 9,300 Ha. Permanent pastures & other grazing land is about 6,500 Ha. Land under misc. trees, crops & groves is about 700 Ha. Uneconomical patches of land are about 17,700 Ha. Total is 78,800 Ha. It was also stated that Shahdol district has a good area under food and non food crops during the Kharif season- nearly 190,000 Ha. However, during Rabi season, the area dwindles to a meager 14,000 Ha. Thus, as it is the area does not draw much water from the flow in Sone River.

Irrigated source-wise irrigated water area was also presented and it was stated that in Shahdol district the source wise irrigated area is as below:

By Canal – 4,400 Ha; By Tank-2,400 Ha; By Tube wells -1,300 Ha; By Open wells-3,800 Ha; From other source-8,900 Ha. Thus the total area irrigated is about 20,800 Ha. This is very low compared to other district in the Rewa Division. District wise, this area of 20,800 Ha constitutes to a meager 6% of the Rewa Division.

Shahdol district has a distinctly large area under Paddy-1,08,000 ha. Out of total area of 1,62,000 ha. That the land can be put to cultivation in Sadhol District is only about 45 % of total area and is predominantly one crop only. Out of the total area of 1,72,800 ha, area actually sown is only 20,800 Ha (12%). Even such irrigated land mostly depends on tanks, tube wells etc. and irrigation provided by Canals is for a meager 4,400 Ha.

As a further check on the viability of the reservoir operation for routing the inflows vis-à-vis the reservoir storage position month wise has been considered. Such an exercise will confirm the availability of water for ensuring the upstream & downstream committed allocations & usages taking into account various losses etc.

It was further stated that with data of observed daily flow in the River Sone being available, an attempt has been made to come out with a working table for operation of the Reservoir to be formed behind the proposed Barrage structure on the River near Shahdol (village Lalpur) for routing this flow. The daily flow data collected for the years 1993-1994 to 1998-1999 at the Phapund gauging station maintained by CWC have been considered for this purpose. The value of the daily flow has been proportionately reduced to that at Shahdol by applying the factor of 0.42 arrived at by comparing the catchment area drained by the River at the two locations. That having fixed the FRL at EL 458.00, the entire boundary of the reservoir was surveyed & marked with the erection of pillars (totaling nearly 440 numbers) for identification and physical verification ensuring no adverse submersion. In view of the above references, the project proponent stated that provision of barrage will entail no adverse impact on competing recipients.

It was further stated that in view of the proposed barrage drinking water for Shadol town will be greatly benefitted and people residing upstream of the barrage will also be benefitted due to availability of water all round the year.

On the issue of R&R plan it was stated that Madhya Pradesh Govt's. R&R Policy has been taken into account wherever applicable. Regarding CSR activities the project proponent made a presentation and informed that sustained activity began

from June, 2010 in Lalpur and Chhata Gram Panchayat of Sohagpur Block. That an amount of Rs 80.62 lakhs has been incurred till date on activities such as health care, education, sanitation, community development etc. That during the year 2013-2017, it is proposed to take up establishing an English Medium School; infrastructural upgradation of all Govt. Schools and Anganwadis; support for bright students of Navadoya and Sainik Schools; establishment of 8 bedded hospitals with ambulance facilities in core village; installation of hand pumps etc.

The Committee noted some of the good work done by the project proponent in social sector but in the instant case it was observed that the claims of CSR activities appears to be an exaggeration in the absence of specific evidences – documentary or otherwise to substantiate the claim. It was also observed that the activities having declared as having been carried out since June, 2010 were not supported with any financial expenditure statement. Regarding proposed CSR programmes the Committee noted that these are general statements with no specific details and commitments. The Committee therefore decided that the project proponent shall submit a detailed Action plan and a firm commitment of implementation of the CSR activities (based on need based assessment) proposed to be carried out along with financial budget allocation.

In view of the observation made above, the Committee decided that the proposal be deferred and shall be taken up once information/study noted above are submitted.”

On submission of the information sought above, the matter was again placed before the EAC for its re-consideration.

The PP made a presentation on the detailed action plan with budgetary provisions for the CSR activities. The revised CSR Report includes the evidences for the activities carried out till now, the supporting documents for financial expenditure towards the above activities and the action plan for the proposed CSR activities (based on need based assessment) along with the budgetary allocation. The proposed budget for CSR activities has been increased by about 50% over the previous allocation. The total CSR investment proposed during 2013-2017 is Rs. 30 crores with an annual expenditure of Rs. 1.5 crores for O&M from the FY 2017-18. The committee felt that the recurring annual CSR expenditure be raised to Rs. 3.5 Crore.

*The committee informed the PP that a representation/complaint was received from EIA Resource and Response Centre, New Delhi for the project. A copy of the same was provided to the PP for their reply. The committee desired that the PP shall submit their detailed reply with a copy to the members for a decision on the issues raised in the said representation and therefore, the proposal was **deferred**.*

2.12 Capacity Enhancement by Debottlenecking of existing 2x150 MW to 2x160 MW Indian and Imported Coal and Petcoke based TPP of M/s Shree Cement Ltd. near Village-Andheri Deori, Tehsil-Masuda, Distt. Ajmer, Rajasthan – ToR.

The proposal was considered for determination of Terms of Reference (ToR) for undertaking EIA/EMP study as per the provisions of EIA Notification, 2006. The

project proponent and their environmental consultant, M/s EMTRC Consultants Pvt. Ltd. gave a presentation and provided the following information:

The proposal is for Capacity Enhancement by Debottlenecking of existing 2x150 MW to 2x160 MW Indian & Imported Coal and Petcoke based TPP of M/s Shree Cement Ltd. near Village-Andheri Deori, Tehsil-Masuda, Distt. Ajmer, Rajasthan. Environmental clearance for the existing unit was accorded by MoEF on 30.11.2010. The certified compliance report of the conditions stipulated in the said EC was forwarded by the MoEF, Regional Office, Lucknow on 26.08.2013 and is found to be in order. The proposed expansion will be carried out in the existing plant area of 22.3 ha and no additional land is required. The water consumption after the proposed expansion will be restricted to 1300 KLD proposed for the existing unit and as per the EC. No additional water would be required. The project cost for capacity enhancement would be Rs. 9.0 crores. The additional cost for circular stacker and reclaimers would be Rs. 48.36 crores.

The committee felt that the calculations for ash generation appeared to be incorrect and hence shall be recalculated. The Form-I shall also be revised accordingly. Further, the details of the existing and proposed fuel also need to be submitted. The committee while considering another proposal in its last meeting for change in fuel mix from coal to pet-coke, wanted to ascertain the environmental performance of TPPs running on pet-coke. In the said meeting it was also decided that a site visit may be undertaken by a sub-group comprising of Shri N.K. Verma, Shri G.S. Dang and a representative of MoEF to study a TPP which is already using pet-coke to some extent, for effect of using pet-coke on emission of SO₂ and other environmental issues. Since the existing unit of the instant project is using pet-coke, it was decided that the site-visit may be done for this project.

*In view of above, the proposal was **deferred** for reconsideration at a later stage.*

2.13 1200 MW (2x600 MW) Thermal power Project of M/s Jindal India Thermal Power Ltd. at village Derang, Distt. Angul, Orissa - Extension of Validity of EC.

The proposal is for extension of validity of EC accorded by MoEF for the above project on 29.9.2008. The project proponent made a presentation before the committee requesting for the extension and provided the following information.

The entire private land required for the project has been acquired and the entire Government land required for the project has been alienated. The Stage-I and Stage-II clearances have been obtained for the forest land. The water for the project has been allocated by Department of Water Resources, Govt. of Odisha in June 2008. The coal for the project has been tied-up. Letter of Assurance for 600 MW (Unit 1) was received from Mahanadi Coalfields Ltd and FSA for 600 MW has been signed. The Mandakini-A Coal Block has been allocated jointly with two other companies which is sufficient for 600 MW (Unit 2). The Main Plant Equipments (BTG) is being supplied by M/s. Bharat Heavy Electricals Ltd. (BHEL). The Balance of Plant (BoP) equipments are being supplied by the best suppliers in the country, including M/s. Siemens Ltd., M/s. Gammon India Ltd., M/s. Paharpur Cooling Towers Ltd., M/s. Tecpro Ltd., etc.

After acquisition of the land for the project in the year 2009, the work was initiated at the project site. However, there has been delay in implementation of the project due to R & R issues, flooding & heavy rains in 2011, delay in supplies by the vendors etc. The project is expected to be commissioned in the year 2014-15. About 60% work is completed and the balance work is progressing at a fast pace.

Based on the information and clarifications provided, the Committee noted that the project is in an advance stage of implementation and no public interest will be served by denying the extension sought. The Committee therefore decided that the request for extension can be agreed to in accordance with the provisions of EIA Notification, 2006. The Committee further recommended that additional conditions which were earlier not prescribed but relevant now be stipulated while issuing the extension of validity.

2.14 600 MW (4x150 MW) Coal Based Power Project of M/s Simhapuri Energy Pvt. Ltd. at Thamminapatnam, Distt. Nellore, Andhra Pradesh - Extension of Validity of EC.

The proposal is for extension of validity of environmental clearance accorded by MoEF on 03.07.2008 for 540 MW (4x135 MW) Coal Based Power Project of M/s Simhapuri Energy Ltd. at Thamminapatnam, Distt. Nellore, Andhra Pradesh. An amendment to the EC for change in configuration from 540 MW (4x135 MW) to 600 MW (4x150 MW) was accorded on 01.01.2010. The project proponent made a presentation before the committee requesting for the extension of validity of EC and also regretted for the inadvertent delay in requesting MoEF for extension i.e. the validity of EC is upto 02.07.2013 whereas the application was made to MoEF on 10.09.2013.

It was informed that the Consent for Operation (CFO) was obtained from the A.P. Pollution Control Board for 2X150 MW Unit (Phase-I) and the 2X150 MW unit (Phase II) is under final stages of erection. The 75 acres of area earmarked for green belt is under green belt development. An amount of Rs. 1.1 crores has been spent on CSR activities till date.

The PP also informed that the company has been converted from Private Limited to Public Limited following the due process and the ROC certificate was issued on 21.11.2012. The relevant documents were submitted to MoEF.

Based on the information and clarifications provided, the Committee noted that the project is in the final stages of implementation and no public interest will be served by denying the extension sought. The Committee therefore decided that the request for extension can be agreed to in accordance with the provisions of EIA Notification, 2006. The Committee further recommended that additional conditions which were earlier not prescribed but relevant now be stipulated while issuing the extension of validity.

2.15 2x660 MW Supercritical Coal based Thermal Power of M/s KU Thermal Power Pvt. Ltd. at Villages Ottapidaram & Sillanattam, District Tuticorin, in Tamil Nadu - Extension of Validity of ToR.

The proposal is for extension of validity of ToR accorded by MoEF on 28.12.2011 for the preparation of EIA/EMP report for the above project. The project proponent made a presentation before the committee requesting for the extension and provided the following information.

The draft EIA report was submitted to TNPCB for conducting the Public Hearing. Although an application was submitted for coal linkage to Ministry of Coal on 23.02.2012, it is yet to be accorded. Since, confirmed coal linkage is mandatory for submission of Final EIA/EMP report, an extension of ToR validity by a year is sought.

Based on the information and clarifications provided, the committee recommended the extension of validity of ToR by one year as per the policy of MoEF. However, the committee noted that as informed by the PP, the draft EIA/EMP report was submitted to the SPCB, whereas the coal linkage is yet to be firmed up. The PP shall ensure that the environmental impacts assessed in the draft EIA/EMP report are in consonance with the coal quality/characteristics proposed. Else, the EIA/EMP report shall be amended accordingly. The Committee further recommended that additional ToR which were earlier not prescribed but relevant now may be prescribed while issuing the extension of validity.

Any other items with the permission of the Chair

3.1 Natural Gas based Combined Cycle Power Plant (478 MW) at Peddapuram, East Godavari District, Andhra Pradesh by M/s Gautami Power Ltd. - reg. amendment in EC.

The proposal is for amendment in EC for use of HSD as alternate fuel instead of 'emergency fuel' for the above project. The project proponent made a presentation before the committee requesting for the said amendment and provided the following information.

MoEF had accorded EC to the above project on 09.01.2001 and an amendment in EC was accorded on 23.11.2005 for utilizing HSD (green diesel) with sulphur content not exceeding 0.05% as an emergency fuel. This is a gas based power project and has natural gas allocation of 1.96 MMSCMD by MoPNG from KG Basin for operating the plant on full capacity. As the gas supplies for the project have come down due to reduction in gas production in the KG D6 fields, it is requested to amend the EC for using HSD (green diesel) with sulphur content not exceeding 0.05% as an alternate fuel instead of emergency fuel.

The plant is based on the state-of-the-art Alstom 13E2 Gas Turbines having dual fuel capability to fire Natural Gas and HSD. The GT combustors incorporate low NOx EV burners achieving NOx levels less than 50 ppm on gas and 75 ppm on HSD. The plant operated on full generation for the years 2009, 2010 and 2011 using gas supplied from KG D6 gas fields. However, since October 2011, the total gas supply

from KG D6 has been reducing from the original level of 60 MMSCMD to less than 15 MMSCMD and supply to power sector was stopped since March 2013. As the power being supplied to the State utilities is under a long term PPA, the actual off-take of power on HSD will be based on merit order dispatch.

The procurement of HSD will be from the Public Sector Oil Marketing Companies with HSD having less than 350 ppm of Sulphur content. The modeling studies on the pollution load in terms of NO_x and SO_x show that they are well within the limits stipulated by CPCB/MoEF. As per the existing policy of GOI i.e. Gazette notification of Ministry of Power on the policy of HSD for power generation vide Resolution: F.No.:FU-32/97-IPC.I (Vol.VI) dated January 19, 2001, power generation using indigenously sourced HSD is allowed. The Ministry of Power and Ministry of Petroleum & Natural Gas have accorded NOC for HSD as fuel for the GVK Jegurupadu Phase II Power Project (220 MW) in East Godavari District, Andhra Pradesh.

The Committee deliberated on the proposal and noted that the quantity of HSD to be utilized for power generation is quite substantial. The usage of HSD in such quantities will not be as eco-friendly as natural gas. The vehicular pollution for transportation of HSD also needs to be taken into account. It was also noted that Government is subsidizing HSD for certain specific end users only such as for transportation. The Committee therefore desired that the PP shall obtain the views/comments of Ministry of Power and Ministry of Petroleum & Natural Gas on the use of HSD for the project before taking a decision.

Further, the Committee sought the composition analysis of HSD to be used vis-à-vis the natural gas, the NO_x emission levels on HSD operation compared to that of Natural gas operation and the particulate emissions from the stack while using HSD as fuel.

*In view of above, the proposal was **deferred** for reconsideration at a later stage.*

3.2 2x600 MW of 4x600 MW Malwa Thermal Power Project at Purni, District Khandwa, Madhya Pradesh by M/s M.P. Power Generating Co. Ltd. – reg. Extension of Validity of EC

The proposal is for extension of validity of EC accorded by MoEF for the above project on 01.10.2008. The project proponent made a presentation before the committee requesting for the extension and provided the following information.

The trial synchronization of Unit I on oil and coal were done on 31.08.2013 and 30.09.2013 respectively. The Unit I has reached full load on 18.11.2013 and the commercial operation is scheduled in December 2013. The trial synchronization of Unit II on oil and coal are scheduled for March and April, 2014 respectively. The commercial operation of Unit II is scheduled in June 2014.

Based on the information and clarifications provided, the Committee noted that the project is in the final stages of implementation and no public interest will be served by denying the extension sought. The Committee therefore decided that the request for extension can be agreed to in accordance

with the provisions of EIA Notification, 2006. The Committee further recommended that additional conditions which were earlier not prescribed but relevant now be stipulated while issuing the extension of validity.

There being no agenda item left, the meeting ended with a vote of thanks to the Chair.
