

To  
M/s MB Power (Madhya Pradesh) Ltd.  
213 Okhla Industrial Estate Phase-III,  
New Delhi- 110 020.

**Sub: Expansion by addition of 2x660 MW (Phase-II) Super Critical Coal Based Thermal Power Plant of, at villages Murra, Belia, Guwari, Amgawan, Takuli & Jaithari, in Jaithari & Annupur Taluks, in Annupur Distt., in Madhya Pradesh - reg. TOR.**

Sir,  
The undersigned is directed to refer to your letter dated 10.11.2010 on the above mentioned subject.

2. It is to inform that the proposal was considered by the Expert Appraisal Committee during its 19<sup>th</sup> Meeting held during March 7-8, 2011, for determination of the Terms of Reference (TOR) for undertaking detailed EIA study in accordance with the provisions of the EIA notification dated **September 14, 2006**.

3. Based on the information provided by you with regard to the above mentioned project proposal, the Committee has prescribed the following Terms of Reference (TORs) for preparation of the Environmental Impact Assessment (EIA) Report and Environment Management Plan (EMP), in respect of your above mentioned project.

- i) Vision document specifying prospective long term plan of the site shall be formulated and submitted.
- ii) Executive summary of the project indicating relevant details along with photograph of site shall be provided and responses to the issues raised in public hearing and written representations (if any) along with action plan to address the same shall be provided in tabular form including requisite allocation of funds.
- iii) Status of compliance to the conditions stipulated in the environmental clearance accorded for Phase-I shall be submitted.
- iv) Possibility for harnessing solar power within the premises of the plant particularly at available roof tops shall be examined and details submitted.
- v) The coordinates of the proposed site including location of ash pond shall be submitted along with topo sheet and confirmed GPS readings of plant boundary, ash pond site etc. Level at Ash Pond site with respect to HFL of nallah/river shall be specified.
- vi) Layout plan indicating break-up of plant, green belt, infrastructure, roads etc. shall be provided.
- vii) Land and requirement for the project shall be optimized. Item wise break up of land requirement and revised layout shall be provided.
- viii) Present land use as per revenue records of the proposed site shall be furnished. Information on land to be acquired, if any, for coal transportation system as well as for lying of pipeline including ROW shall be specifically stated. It may clearly be confirmed whether the land including ROW is free of all encumbrances. The issues relating to land acquisition and R&R should be clearly discussed in the EIA report.
- ix) Satellite imagery or authenticated map indicating drainage, cropping pattern, water bodies (rivers, nallahs, ponds etc.), location of nearest villages, creeks, mangroves, rivers, reservoirs, national parks, wildlife sanctuaries, tiger reserves, biosphere reserves, heritage sites etc in the study area shall be provided.
- x) Location of any National Park, Sanctuary, Elephant/Tiger Reserve (existing as well as proposed), migratory routes, if any, within 10 km of the project site shall be specified and marked on the map duly authenticated by the Chief Wildlife Warden.
- xi) Topography of the area (elevation) shall be clearly indicated and specific information whether the site requires any filling shall be provided. If case so, details of filling, quantity of fill material required, its source, transportation etc. shall be given.
- xii) A detailed study on land use in the study area shall be carried out which shall include identification of common property resources available for conversion into productive land. Accordingly action plan for abatement and compensation for damage to agricultural land/ common property land (if any) due to proposed project (as applicable) shall be prepared.
- xiii) A mineralogical map of the proposed site and confirmed information that the site is not located on economically feasible mineable mineral deposit shall be submitted.
- xiv) Details of 100% fly ash utilization plan from day one of operation of the plant along with firm agreements / MoU with contracting parties shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.
- xv) Water requirement shall be optimized and revised requirement shall be submitted along with water balance diagram. Details of water balance calculated shall take into account reuse and re-circulation of effluents which shall be explicitly specified.
- xvi) Water body/nallah (if any) passing across the site shall not be touched. It shall also be ensured that atleast 100 m distance is kept away from the HFL of the nallah (if any) passing in and around the proposed site. In case any nallah / drain are to be diverted it shall be ensured that natural drainage pattern of the area is not disturbed and details shall be provided.
- xvii) Degenerated water bodies in and around the site within a 3.0 Km radius shall be regenerated and action plan shall be formulated.
- xviii) Hydro-geological study of the area shall be conducted from an institute/ organisation of repute to assess impact on ground and surface water regime due to proposed project. Specific mitigation measures shall be spelt out and action plan for implementation of the same shall be provided.
- xix) Study on the impact on river/marine ecology (as may be applicable) due to the proposed withdrawal of water / discharge of treated wastewater into the river/creek/ sea etc shall be carried out and submitted alongwith the EIA Report.
- xx) Source of water and its availability. Commitment regarding availability of requisite quantity of water from the Competent Authority (as may be applicable) shall be provided along with letter / document stating firm allocation of water.
- xxi) Detail plan for carrying out rainwater harvesting and proposed utilisation in the plant shall be provided.
- xxii) Feasibility of zero discharge shall be examined and detailed justification shall be submitted if in case the same is not possible. Proposed discharge (if any), its quantity, quality and point of discharge, users downstream etc. shall be provided.
- xxiii) Quantity of water requirement for the project should be optimized. Optimization of COC for water conservation shall be specified. Other water conservation measures proposed in the project should also be given.
- xxiv) Detailed plan for conducting monitoring of water quality regularly and mechanism for maintenance of records shall be formulated. Detail of methodology and identification of monitoring points (between the plant and drainage in the direction of flow of surface / ground water) shall be submitted. It shall be ensured that parameter to be monitored also include heavy metals.
- xxv) Detailed socio-economic study shall be carried out for the study area comprising of 10 km from the plant site.
- xxvi) Action plan for identification of local employable youth for training in skills relevant to the project for eventual employment in the project itself shall be formulated.
- xxvii) A detailed R&R and CSR plan along with activities wise break up of financial commitment shall be prepared. CSR component shall be identified considering need based assessment study. Sustainable income generating measures which can help in upliftment of poor section of society which is consistent with the traditional skills of the people shall be identified. The programme can include activities such as development of fodder farm, fruit bearing orchards, vocational training etc. Separate budget for community development activities and income generating programmes shall be specified.
- xxviii) R&R action plan shall specify the details of land / homestead oustees and compensation and welfare measures formulated.
- xxix) While formulating R&R and CSR schemes it shall be ensured that an in-built monitoring mechanism for the schemes identified are in place and mechanism for conducting annual social audit from the nearest government institute of repute in the region shall be prepared. The project proponent shall also provide action plan for the status of implementation of the scheme from time to time.
- xxx) Specific schemes for upliftment of marginalized section of the society especially tribals population in the study area shall be also formulated as part of CSR programme.
- xxxi) One complete season AAQ and meteorological data (except monsoon) shall be collected and the dates of monitoring mentioned. The parameters to be covered for AAQ shall include SPM, RSPM (PM10, PM2.5), SO<sub>2</sub>, NO<sub>x</sub>, Hg and O<sub>3</sub> (ground level). The location of the monitoring stations should be so decided so as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors including reserved forests. There should be at least one monitoring station each in the upwind and in the pre dominant downwind direction at a location where maximum ground level concentration is likely to occur.
- xxxii) Cumulative impact of other sources of emission including the proposed project on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours may be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any. The wind roses should also be shown on this map.
- xxxiii) Fuel analysis shall be provided. Details of auxiliary fuel, if any including its quantity, quality, storage etc should also be given.
- xxxiv) Quantity of fuel required its source and characteristics and document to substantiate confirmed fuel linkage shall be provided.
- xxxv) Details of transportation of fuel from the source to the proposed plant shall be submitted. If transportation is over a long distance it shall be ensured that rail transportation to the site shall be first examined and details in this regard provided.
- xxxvi) Details regarding infrastructure facilities such as sanitation, fuel, restroom, medical facilities, safety during construction phase etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
- xxxvii) EMP to mitigate the adverse impacts due to the project along with item wise cost of its implementation shall be specified.
- xxxviii) A Disaster Management Plan along with risk assessment study including fire and explosion issues due to storage and use of fuel should be carried out. It should take into account the maximum inventory of storage at site at any point in time. The risk contours should be plotted on the plant layout map clearly showing which of the proposed activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures should be provided. Measures to guard against fire hazards should also be provided.
- xxxix) Detailed plan for raising Green belt of 100 m width and consisting of at least 3 tiers around plant boundary (except in areas not possible) with tree density not less than 2500 trees per ha and survival rate atleast 80% shall be submitted. In case 100 m width is not feasible atleast 50 m width green belt shall be raised and detail justification provided.
- xl) Over and above the green belt, as carbon sink, social forestry shall be carried out in close consultation with the District Forests Department. The project proponent shall accordingly identify blocks of land / degraded forests and shall undertake regeneration of degraded forests at a large scale. In pursuance to this the project proponent shall formulate time bound action plan along with financial allocation and shall submit status of implementation to the Ministry every six months.
- xli) Details of litigation pending or otherwise with respect to project in any courts, tribunal etc. shall be provided.

4. Besides the above, the following general points will be followed:

- a. All documents to be properly referenced with index, page numbers and continuous page numbering.
- b. Where data is presented in the report especially in table, the period in which the data was collected and the source should invariably be indicated.
- c. Where the documents provided are in a language other than English, an English translation should be provided.
- d. The Questionnaire for environmental appraisal of thermal power projects as devised earlier by the Ministry shall also be filled and submitted.
- e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/ EMP reports prepared by them and data provided by other organization / Laboratories including their status of approvals etc. In this regard circular no. F.No. J-11013/77/2004-IA-II (I) dated 2<sup>nd</sup> December, 2009 is posted on the Ministry's website <http://www.moef.nic.in> may be referred.

In addition to the above, information on the following may also be incorporated in the EIA report.

1. Is the project intended to have CDM-intent?

(i) If not, then why?

(ii) If yes, then

a. Has PIN (Project Idea Note) {or PCN (Project Concept Note)} submitted to the ?NCA? (National CDM Authority) in the MoEF?

b. If not, then by when is that expected?

c. Has PDD (Project Design Document) been prepared?

d. What is the Carbon intensity? from your electricity generation projected (i.e. CO<sub>2</sub> Tons/MWH or Kg/KWH)

e. Amount of CO<sub>2</sub> in Tons/year expected to be reduced from the baseline data available on the CEA's web-site ([www.cea.nic.in](http://www.cea.nic.in))

2. Notwithstanding 1(i) above, data on (d) & (e) above shall be worked out and reported.

**5. The Environmental clearance shall be applied only after firm fuel and water linkages are obtained.**

6. After preparing the Draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the same shall be submitted to the SPCB for conducting the public hearing as per procedure of EIA notification 2006. The issues emerged during public hearing shall be further incorporated in the Draft EIA/EMP report. The final EIA/EMP report along with public hearing report and the requisite documents (*including written objections, if any*) shall be submitted to the Ministry for appraisal by the Expert Appraisal Committee for consideration of awarding environmental clearance under the provisions of Environmental Impact Assessment notification dated September 14, 2006.

7. The TORs prescribed shall be valid for a period of two years for submission of EIA/ EMP reports, after public consultation.

Yours faithfully,

(Dr. P.L. Abujarai)  
Director

Copy to:

1. The Secretary, Department of Environment, Govt. of Madhya Pradesh.
- The Chairman, Madhya Pradesh Pollution Control Board, Paryavaran Prisar, E-5 Arera Colony, Bhopal – 462 016.
3. The Chief Conservator of Forests, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, Arera Colony, Ravishankar Nagar, Bhopal - 462016.
4. Guard File.

(Dr. P.L. Abujarai)  
Director