

**19<sup>th</sup> EAC (THERMAL & COAL MINING PROJECTS) MEETING  
SCHEDULED FOR 26<sup>th</sup> SEPTEMBER, 2017.**

**AGENDA**

**Venue: Narmada Conference Hall, Ground Floor, Jal Wing,  
Indira Paryavaran Bhawan, Jorbagh, New Delhi-110003.**

**[Pl. check the MoEF website: http://environmentclearance.nic.in/Report/Default3.aspx](http://environmentclearance.nic.in/Report/Default3.aspx)**

**Important Note:**

- i. Please send the information as per Annexure 1 by E-mail in word format and also a signed & scanned copy, to the Member-Secretary at sk.smree66@nic.in at least one week prior to the EAC meeting.**
- ii. Please send hard copies of the documents indicating agenda items to all the EAC members, at least one week prior to the meeting and ensure the receipt of same.**
- iii. Non receipt of the project will lead to deferment of the project.**
- iv. Please also provide a hard copy of presentation to the EAC Members during the meeting.**
- v. The Project Proponent should carry the KML/Shape Files of the mine lease area at the time of presentation before EAC and to present on the details of mine lease online to show the present status of mine lease**
- vi. The KML/Shape files should be emailed on the below mentioned email addresses at least 10 days prior to the meeting**
- vii. The Project Proponent to show the transportation route of minerals on maps during presentation.**
- viii. Without this information, EAC has discretion to invite the proponent for the meeting.**
- ix. No consultant is permitted into the meeting who has no accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) as per the MoEF OM dated 2nd December, 2009**

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**COAL MINING PROJECTS**

**Time: 10.00 AM: Tuesday: 26<sup>th</sup> September, 2017**

- 19.1 Garjanbahal OCP coal block of 10 MTPA (Normative)/13.0 MTPA (peak) in a total project area of 795.38 ha of M/s Mahanadi Coalfields Limited in District Sundargarh (Odisha) - For further consideration of EC
- 19.2 Environmental Clearance to Durgapur Extension Deep OC Phase-II of 3 MTPA of M/s Western Coalfields Limited in a total area of 1622.50 ha located in District Chandrapur (Maharashtra), dovetailing the EC for Phase-I granted on 16<sup>th</sup> March, 2012.- Further consideration of EC.

- 19.3 Baitarni West Coal Mine of 15 MTPA in a total project area of 1567 ha by M/s Odisha Mining Corporation Ltd located in North Central Part of Talcher Coalfields in District Angul (Odisha)- ForTOR
- 19.4 Gourangdih ABC Coal Mine of 2.5 MTPA in a total project area of 356.575 ha by M/s West Bengal Mineral Development And Trading Corporation Limited (WBMDCL) located in villages Panuria, Kantapahari, Jamgram, Shibdhawra, Banddhawra, Lalbandh, Gourangdih and Bhuiapara, Barabani CD Block, District Paschim Bardhaman, (West Bengal) - For TOR
- 19.5 Madanpur South Coal Mine project of 5.4 MTPA in a total project area of 713.952 ha of M/s APMDC located in villages Morga, Ketma (Hasdeo-Arand Coalfield), Tehsil Katghora in District Korba (Chhatisgarh) - For TOR
- 19.6 Barjora (North) Block Coal Mining Project (3 MTPA) in a total area of 260.14 ha located in village and Tehsil Barjora, District Bankura, West Bengal M/s The West Bengal Power Development Corporation Limited - For TOR
- 19.7 Murpar Expansion UG Mine (Phase-I) for a sanctioned EC capacity of 0.28 MTPA with increase in Land Area from 325 Ha. to 482.09 Ha by M/s Western Coalfields Limited Located in Tehsil Chimur, District Chandrapur of (Maharashtra)-EC under 7(ii) of EIA Notification J-11015/25/2001-IA.II (M)
- 19.8 Pakri Barwadih Coal Mine Project (15 MTPA) in an area of 3319.42 ha of M/s National Thermal Power Corporation Ltd. (NTPC) Ltd. located in villages Barkagaon, Itij, Chiruadih, Urub, Chepa, Kalan, Nagri, Jugra, Sinduari, Churchu, Carahara, Sonbarsa, Pakri-Barwadih, Chepa-Khurd, Deora-Kalan, Lakura, Langatu, Keri, Dadikalan, Tehsil Barkagaon District Hazaribagh (Jharkhand)- EC Amendment
- 19.9 Discussion on any other item.

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## Basic Information

**Important Note:** Please send the information by e-mail **in word format and a signed & scanned copy** to the Member-Secretary at [sk.smree66@nic.in](mailto:sk.smree66@nic.in) prior to the EAC meeting. Please also provide a copy to the members of the EAC during the EAC meeting.

### I. PROJECT DETAILS

1. Name of the project:
2. Name of the Company, Address Tele No. & E-mail :
3. Latitude and Longitude of the project
4. If a Joint venture, the names & addresses of the JV partners including their share
5. Details of coal linkage:
6. Whether the project is in the Critically Polluted Area (CPA):
7. **Cost of the project :**
8. **Employment generated/to be generated:**
9. **Benefits of the project:**
10. Whether new or expansion project .If expansion:
  - i from ..... MT to ..... MT
  - ii What is the % of expansion
11. If for expansion, whether the application is under 7(ii) of the EIA Notification, 2006.
12. If expansion, please indicate the number and date of the **certified Compliance Report** of Regional Office of the MoEF
13. No. and Date of the ToR /and revised ToR, if any, letter issued by the MoEF (if this is a case for EC)
14. No. and Date of the EC and the revised EC letter issued by the MoEF (if this is a case for reconsideration. If so, what specific reconsideration(s) being sought by the proponent)
15. If the project was considered in EAC, Pl. give dates of the meeting (s).
16. Type of Mine: (Open cast/Underground/mixed):
17. Capacity of the mine applied for
18. ML Area
  - i. As per block allotment
  - ii. As per approved mine plan
19. Date of approval of mine plan, mine closure plan, status & date
20. Date of Board's approval:
21. Date of Ground water clearance:
22. Date of mine closure approval
23. Any river/Nallha flowing near or adjacent to the proposed mine. If yes, please give details.

Signature of Proponent

Date

## II. TECHNICAL DETAILS

### 24. Geological Reserve:

- i. Total geological reserve
- ii. Mineable reserve
- iii. Extractable reserve
- iv. Per cent (%) of extraction
- v. Range of ground water level
- vi. Total estimated water requirement:

### 25. Details of Seams:

- i. No of seams
- ii. Thickness of seams to be worked on
- iii. Grade of coal
- iv. Stripping ratio
- v. Category of gaseousness
- vi. Average gradient
- vii. Maximum thickness of seams

### 26. Method of mining:

### 27. Life of mine

28. Whether ambient air quality seasonal data has been documented. If so, from which season to which season and whether the results are within the prescribed limits.

29. Whether the certificate of compliance of earlier EC from MoEF Regional Office has been obtained, if the proposal is for expansion.

### 30. Details of O.B.

- i. External OB dumps
- ii. No of OB dumps
- iii. Area
- iv. Height
- v. Quantity (in MCm)
- vi. Year of back filling

### 31. Details of Internal Dumps

- i. Number of internal dumps
- ii. Area
- iii. Height
- iv. Quantity

Signature of Proponent  
Date

32. Details of final Mine Voids

Area  
Depth

33. Details of Quarry:

Total quarry area :

Backfilled quarry area of .....ha shall be reclaimed with plantation.

A void of ..... ha at a depth of ..... m which is proposed to be converted into a water body.

34. Details of Land usage

**LANDUSE DETAILS**

S.N.	LANDUSE	Within ML Area (ha)	Outside ML Area (ha)	TOTAL
1.	Agricultural land			
2.	Forest land			
3.	Wasteland			
4.	Grazing land			
5.	Surface water bodies			
6.	Settlements			
7.	Others (specify)			
	<b>TOTAL</b>			

Pre-mining:

Post- Mining:

S.N.	Land use during Mining	Land Use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	TOTAL
1.	External OB Dump					
2.	Top soil Dump					
3.	Excavation					
4.	Roads					
4.	Built up area					
5.	Green Belt					
6.	Undisturbed Area					
	<b>TOTAL</b>	85				<b>110</b>

Core area

Signature of Proponent  
Date

Details of Forest issues

- i. Total forest area involved (in ha) for mining
- ii. Status of Forest Clearance
- iii. Is there any National Park, eco-sensitive Zones, within 10 km radius? If so, give the details.
- iv. If the project is within 10 KM of radius of the wild life sanctuary, whether the Wild Life Management Plan has been prepared and approved. If so, pl give the status, date of approval with the budgetary provision.
- v. Extent of forest land in the project (including safety zone and all types of forest land) (in ha)
- vi. Total forest land for which Stage-1 FC is available (give area in ha), provide breakup of this area in following format:

Area (in ha)	Stage-1 FC issued vide letter no.& date	Validity period of FC

- vii. Balance forest land for which Stage-1 FC is not available (give area in ha)
- viii. Details of wild life issues involved, if any. If so, whether WL management plan has been prepared and pl. indicate the status.

35. Cost of the project :

- i) Total capital Cost:
- ii) Cost of Production:
- iii) Sale Price:
- iv) CSR cost:
- v) R&R Cost:
- vi) No of PAFs:
- vii) Environmental Management cost:

36. Details of transportation of coal

- i. In pit:
- ii. Surface to siding:
- iii. Siding at loading:

37. Details of reclamation:

- a. Total Afforestation plan shall be implemented covering of mining. This will include:
  - i. Reclaimed external OB dump ( in ha ) :
  - ii. internal dump (in ha),
  - iii. Green belt ( in ha)
  - iv. Density of tree plantation ( in no of plants)
  - v. void ( in ha) at a depth of ( in m )which is proposed to be converted into water body
  - vi. Others in ha (such as excavation area along ML boundary, along roads and infrastructure, embankment area and in township located outside the lease etc).

Signature of Proponent  
Date

38. Detailed Status of Progressive Mining Closure Plan **(For expansion projects only)**

- a) Implementation of various activities as per approved progressive mine closure plan ( in Bar chart)
- b) Any deviation from the approved Progressive Mine Closure Plan.
- c) Total area excavated (in ha.)
- d) Total area backfilled after excavation (in ha.)
- e) Total area reclaimed (in ha.)

**III. LEGAL ISSUES**

- 39. PI give details , if the proposal is under any investigation
- 40. Any court cases pending. If so, please provide a list with details as annexure.
- 41. Any violation cases pending. If so, please provide a list with details as annexure
- 42. Give details of actual coal production vis-à-vis sanctioned capacity since the inception of mine in following format :

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity

**IV. PUBLIC HEARING ISSUES**

- 43. Date and Place of public hearing:
- 44. Issues raised during Public Hearing and assurance given alongwith the financial provisions, if any, by the project proponent.(Please attach as an annexure in a tabular form.)

**V. Consultant:**

- 45. Name of the consultant who prepared the EIA/EMP report
- 46. Whether the consultant has been accredited by the QCI and NABL and whether it is accredited with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) as per the MoEF OM dated 2nd December, 2009

**VI. IMG of Ministry of Coal :**

- 47. Whether the project was considered by the IMG of Ministry of Coal for any irregularities. If so the no. and date of the show cause notice and the response of the MoC.

Signature of Proponent  
Date

**GENERAL INSTRUCTIONS FOR SUBMISSION & CONSIDERATION OF TOR/EC**

**ANNEXURE-2**

## APPLICATIONS OF COAL SECTOR PROJECTS

### I TOR/EC APPLICATION

1. Proponents should clearly specify the date of application, location (village, coalfield, Tehsil, District, State), production capacity (MTPA) and lease/project area (in ha), in the application and in the forwarding letter. (In case the lease area does not cover all aspects of the mining activities /operations such as infrastructure, buildings, roads, ext. OB dumps, etc., then the total project area should be given which includes the lease area and area falling outside the lease for mining activities/operations). In case of expansion projects, in case of expansion in production from \_\_\_\_\_ MTPA to \_\_\_\_\_ MTPA or for ML/ project area from \_\_\_\_\_ ha to \_\_\_\_\_ ha should be given.
2. Production capacity should indicate both normative and peak capacity. Both TOR and EC applications should be on this basis. Peak capacity means the highest achievable production capacity from the mine taking into consideration the geo-mining characteristics, equipment, manpower deployment, man hours, etc achievable for the mine and exigencies for enhancement of production. The peak capacity that is achievable for the project, for which EC has been applied for, should be also reflected in the approved Mining Plan.
3. The Name and address of the Consultant who has prepared the EIA-EMP Report should also be given on the cover of the EIA-EMP and on the cover of the Hard copy of the presentations made to the EAC. The details of QCI registration along with the No. should also be indicated.
4. Details of Land use breakup of the lease area and study area should be based on land use - details of agricultural land, forest land, wasteland, grazing land, surface water bodies, settlements, etc. and not based on land ownership such as tenancy land, Govt. land, revenue land, etc.
5. The application should be signed by a person of the Company or someone authorised by the company and **the name of the signatory and the position in the company** should be clearly stated in the forwarding letter and in the application (Form-I) and in the EC application. Applications not with the aforesaid details would be treated as incomplete applications.
6. In case the Ministry of Coal has allocated the Coal Block to one or more companies, and the Allotment letter stipulates constitution of a Joint Venture, however, the lease is in the name of one of the members of the JV, then the application for EC (TOR and EC based on TOR) must be made by the concerned lessee of the JV only. If the lease is jointly allotted to the JV, the application should be made by the JV allotted the lease. Individual members of the JV cannot make the application unless they are the lessee of the coal block.
7. Such an application must include the following: (i) The MOC Allotment Letter of the Coal Block, (ii) Copy of constitution of the JV under the Companies Act, (iii) MOU entered by the JV companies vide MOC Allotment letter.



8. The Application for TOR should be made **only when** toposheet of the study area has been procured.
9. The Application for TOR should be made **only after** the geological report of the coalmine project has been completed for the project area for which the coal mining project is being formulated and is being sought TOR.
10. All the sections in the Form-I (Revised) should be filled in. No section should be left blank.
11. A CD (soft form) in PDF and in WORD format of the TOR Application containing the Form-I and the Pre-feasibility report) and EIA-EMP and supporting documents for the EC application should be submitted to the MOEF at the time of application. These should be forwarded to the EAC members at the time of circulation of the application along with MOEF covering letter indicating its inclusion in the agenda for the EAC meeting.
12. Pl. send all your communications **to MOEF by SPEED POST** (India Post) as most of the Courier agencies are not permitted within the CGO Complex. Copies to EAC members could be by Courier/Speed Post.
13. **No change can be made in the application** (Form-I and the pre-feasibility Report) **at the time of circulation to EAC members**. In case the details provided in Form-1 and the pre-feasibility Report require changes, then a formal letter from the company along with the revised application should be made to the Ministry indicating the specific changes made. In case the application requires revision, the revised application should state at the top of the Form-I (Revised along with date of revision). **Only after obtaining prior permission from MOEF**, the revised application (or original applications can be circulated for presentation before the Committee.
14. An approved Mining Plan is not required at the TOR stage. In case of new projects, it is desirable to submit applications for TOR when the Mining Plan is under finalisation/draft stage, the details of which can be provided in the pre-feasibility report). **An approved Mining Plan along with MOC approval letter is required at the EC stage.**
15. In case of applications under Section 7.2 (ii) for expansion projects with prior EC for the project of a lesser production capacity/lease area/both and the present application is for expansion in production/ lease area/ both/ modernisation, the application (Form-I) should be submitted under Section 7 (ii) of the EIA Notification 2006, enclosing the following: (i) a copy of the EC letter, (ii) a copy of the EIA-EMP Report of the earlier EC, (iii) copy of the proceedings of Public Hearing conducted on the project of earlier EC (and authorised English translation in case the P.H. is not in English) and status of implementation of issues raised therein, (iv) An Addendum EIA-EMP Report of not more than 25-30 pages which will form part of the pre-feasibility report of the expansion project report covering all aspects of EIA-EMP for the proposed expansion - status of env. quality, specific issues on which impacts are anticipated and the proposed EMP/ mitigative measures

proposed for the expansion project vis-à-vis the project for which EC was obtained.

In addition, a detailed compliance report on the earlier EC along with status of implementation of R&R (in case the project involved an R&R) should be also furnished in the Addendum EIA-EMP Report.

16. Applications for new/expansion Projects having a baseline data of more than 3 years will require fresh generation of baseline data based on the recent NAQPM Notification of 2009. Baseline data for AAQ should be consistent with meteorological data for the same season. It can be for any season except monsoon. **In case, baseline data has been collected before application has been made for the TOR**, the details of the data are required to be presented before the EAC for their approval for grant of TOR. **The minutes of the meeting must make a definite reference that the baseline data has been collected before the application was made for TOR**, however, EAC has approved the base line data and locations of stations.

17. If a captive coal washery is proposed to be constructed within the lease/project area or in the vicinity of the proposed (new) coalmining project for which TOR application is being made, then for such cases, an application for TOR for the integrated coalmine-cum-washery unit should be submitted.

18. Production capacities of coal mining as well as for the washery should be in ROM.

19. Circulation of the application for TOR should be made so as to reach the EAC members at least 10 days before the scheduled date of the meeting. The applications (Form-I and the pre-feasibility report) should be photocopied back-to-back while submitting to the Ministry and while circulating to the EAC members.

20. Once a TOR has been granted by the Ministry, the project proponent cannot make any changes to any TOR Condition or project parameters without prior approval of the Ministry.

21. The name and address of the Consultant who is registered with QCI can prepared the EIA-EMP Report. The name of the Consultant who has prepared the EIA-EMP Report should be available on the hard cover of the Reports (pre-feasibility report at the TOR stage and the EIA-EMP Report at the EC stage). Wherever secondary data has been included, it should be specifically stated so along with source of data and year of data collection.

## ***II TOR/EC PRESENTATION TO THE EAC COMMITTEE***

22. Presentation to EAC should be made by the lessee only. However, representatives of the JV could also attend. In case the JV or one of the companies of JV is making the presentation on behalf of the lessee, a letter of Power of Attorney by the lessee/JV owning the lease is required for making the presentation for TOR/EC.

23. A senior level representative of the Company who is of a level of decision maker should appear before the Committee. If the company so desires, the senior representative could be accompanied by his team along with consultants who is registered with QCI. The name of the consultant and the registration No with QCI should be provided on page 1 of the Hard Copy circulated at the time of presentation.

24. The following maps/topo sheets and schematic diagrams are essential for the presentation:

**Land use maps (1: 50,000 scale) based on recent satellite imagery** indicating the topographical and land use features of the study area (10km buffer zone surrounding the core zone) should be furnished. In case of ecologically sensitive areas as defined in the EIA Notification 2006 – Appendix I Form 1 – III Sensitivity of (for eg. Areas near Wildlife Sanctuaries/Tiger Reserves/National Parks/Archaeological monuments, areas falling near/within elephant habitats/migratory corridors), a 15km map of the buffer zone should be presented. Satellite imagery should also be provided.

**Land use Map of the study area (core zone and 10km of the buffer zone) on the topo sheet (1: 50,000 scale)** indicating the broad topographical features of the land use (agricultural land, forestland, grazing land, wasteland and surface water bodies) **and not based on land ownership** of the core zone and buffer zone should be furnished. The maps should also contain the other features such as major roads, Highways, Railway lines, other mines and industries, habitations, etc.

25. In case the features are not clear in the topo sheet, map of the study area (core zone and buffer zone) superimposed on the topo sheet (1: 50,000 scale) preferably on Computer-Aided-Design (CAD) should be presented.

26. **Landuse map of the coalfield** showing major landuse features including forests and drainage and location of project within the coalfield along with locations of other coal mines, main coal transportation routes, etc should be shown.

27. **A landuse map based on toposheetof the study area (1: 50,000 scale)** indicating the hydrological features (rivers, canals, streams, nallas, water tanks, etc.) within the core zone and buffer zone should also be provided.

28. A more detailed **area drainage contour map** of the core zone and 2-5 km of the buffer zone (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in a separate map.

29. In case of any proposed diversion of nallah/canal/river, the proposed route of diversion/modification of drainage and their realignment, construction of embankment etc. should

also be shown (in dotted lines) on the map.

30. Similarly if the project involves diversion of any road/railway line passing through the ML/ project area, the proposed route of diversion (in dotted lines) and its realignment should be shown.

31. A **separate map of the core zone** indicating the proposed locations of quarry area, ext. OB dumps, and other mining operations should be shown on the map. For projects where the Mining Plan is under finalisation, the progressive mine development and final mine closure plan should also be shown as figures.

32. A schematic diagram of the route of coal transportation form mine face to end user along with km distance should be shown.

33. TOR application/presentation should indicate details of secondary data available on the study area. In addition, method of collection of the baseline data, along with met. data of nearest station of IMD along with wind roses along with proposed locations of monitoring stations shown on the study area map (Core zone and buffer zone), etc should be furnished. Similarly details of proposed locations of stations for water quality monitoring and noise levels should also be provided.

34. All presentation slides and maps should be clear and legible with proper indexing and colour **as per standard colour codes**. The slides on the presentation material should be numbered.

35. Hard copies of Presentation made on TOR during the meeting should be page numbered and **photocopied back-to-back** (except for maps which should be preferably in A3 size).

36. Hard copy of the presentation should contain the following information on its cover:

- a. Name of the Project & Location (village, Tehsil, Name of the Coalfield, District, State)
- b. Name of the Company
- c. Production capacity (in Million tonnes per annum) (MTPA) (in ROM)
- d. Lease/project area (in ha)
- e. If it is a case of expansion, then from ... MTPA to .... MTPA or from .... ha to ..... ha or both (if it involves expansion in lease area and production capacity)
- f. Date of presentation (each time it comes up for consideration should be indicated along with the date in addition to the above).
- g. Presentation before the EAC can also be made only by consultants who are registered with QCI vide MOEF Circulars. The name of the Consultant and address should also figure on the Cover of the presentation/slide 1 of the presentation.

## MEMBERS OF THE EXPERT APPRAISAL COMMITTEE (THERMAL &amp; COAL MINING)

Sl.No.	Particulars	Capacity
1.	Dr.Navin Chandra Chairman EAC (Coal and thermal), GOI Director General MP Counsel of Science and Technology (MPCST) Vigyan Bhawan, Nehru Nagar Bhopal - 462003 (Madhya Pradesh) E-mail: <a href="mailto:navinchandrarrl@yahoo.com">navinchandrarrl@yahoo.com</a>	Chairman
2.	Dr.Narmada Prasad Shukla Former Chairman, Madhya Pradesh Pollution Control Board, H-44 B, Apsara Complex, Indrapuri A factor, Bhopal (Madhya Pradesh) - 462 021 E-mail: <a href="mailto:Shuklanp55@gmail.com">Shuklanp55@gmail.com</a>	Member
3.	Shri N. Mohan Karnat, IFS Chief Conservator of Forest Institute of wood Science and Technology, 18th Cross, Malleshwaram, Bangalore (Karnataka) - 560 003 E-mail: <a href="mailto:mohankarnat4@gmail.com">mohankarnat4@gmail.com</a>	Member
4.	Dr. Sharachchandra Lele, Senior Fellow, Programme Leader (Forests & Governance), Convenor (Centre for Environment & Development) Ashoka Trust for Research in Ecology and the Environment, (AITREE), Bangalore (Karnataka) – 560 064 E-mail: <a href="mailto:slele@atree.org">slele@atree.org</a>	Member
5.	Dr. Jai.Krishna Pandey Sr. Principal Scientist & Head of Miner's Health and Safety, CSIR-Central Institute of Mining and Fuel Research (CIMFR), Technology Block, (Room No. TG-8) Barwa Road, Dhanbad – 826 015 (Jharkhand) Email: <a href="mailto:jkpandey@cimfr.nic.in">jkpandey@cimfr.nic.in</a>	Member
6.	Dr. Manjari Srivastava Professor, School of Business Management, NMIMS (deemed to be University), V L Mehta Road, Vile Parle, West Mumbai -400 056 (Maharashtra) Email: <a href="mailto:manjari.srivastava@nmims.edu">manjari.srivastava@nmims.edu</a>	Member
7.	Dr. Gururaj P. Kundargi	Member

	Ex. CMD, MOIL Limited Plot No. 32, MOIL Vatika, Chincholi Road, Fetri Nagpur -441501(Maharashtra) Email: <a href="mailto:gpkundargi@gmail.com">gpkundargi@gmail.com</a>	
8.	Shri Surmya Dolarray Vora Executive Director, Gujarat Science City, Plot no. 725/B, Sector-8C Gandhinagar -382007 (Gujarat) Email: <a href="mailto:Suramyavora@gmail.com">Suramyavora@gmail.com</a>	Member
9.	Representative Central Electricity Authority (CEA), Ministry of Power, Sewa Bhawan, R.K. Puram, New Delhi – 110 066. E-mail: <a href="mailto:pdsiwal@yahoo.com">pdsiwal@yahoo.com</a>	Member
10.	Representative Director General of Metrology, Indian Meteorological Department, Mausam Bhawan, Lodhi Road, New Delhi-110 003. E-mail: <a href="mailto:ram.giri@imd.gov.in">ram.giri@imd.gov.in</a>	Member
11.	Representative Central Pollution Control Board, (Dr. S.K. Paliwal, Scientist-D) Officer dealing in Coal Mining Parivesh Bhawan, East Arjun Nagar Delhi- 110 032 E-mail: <a href="mailto:sanjeevpaliwal.cpcb@nic.in">sanjeevpaliwal.cpcb@nic.in</a>	Member
12.	Representative Indian Institute of Technology (Indian School of Mines), Dhanbad (Jharkhand)- 826 004 E-mail: <a href="mailto:dt@ismdhanbad.ac.in">dt@ismdhanbad.ac.in</a>	Member
13.	Shri S. K. Srivastava Additional Director, (IA-Coal Mining) Ministry of Environment, Forests and Climate Change, IPB, Jor Bag New Delhi – 110 003 E-mail: <a href="mailto:sk.smree66@nic.in">sk.smree66@nic.in</a>	Member Secretary

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