

J-13012/18/2009 - IA. II (T)  
Government of India  
Ministry of Environment & Forests



Paryavaran Bhavan, C.G.O. Complex,  
Lodi Road, New Delhi - 110003.  
Dated: 01.02.2011.

**OFFICE ORDER**

**Sub: 1x300 MW Coal Based Thermal Power Plant (Phase-II Expansion) project at Thammenapatriam village, in Chillakuru Mandal, in Distt. Nellaore, in Andhra Pradesh - reg.**

Sir,

This has reference to your letter no. CTP-20-DT-ENV-02-MEPL-MOEF-189, dated 17.08.2010 requesting for amendment in environmental clearance accorded by this Ministry vide its letter of even no. dated 19.10.2009 and its amendment issued on 25.02.2010, on the above mentioned power project.

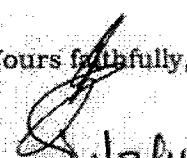
2. The request has been examined and the following changes as mentioned under shall be made in this Ministry's letter of even no. dated 19.10.2009 and 25.02.2010.

3. At para no. 4, the condition at clause (vi) read as: "Closed cycle cooling system with natural draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms. COC of 5 shall be adopted" shall be now substituted as "Closed cycle cooling system with induced draft cooling towers shall be provided. The effluent shall be treated as per prescribed norms. COC 1.6 shall be adopted".

4. All other conditions mentioned in this Ministry's aforesaid letter of even no. 19.10.2009 and 25.02.2010 shall remain the same.

This issues with the approval of the Competent Authority.

Yours faithfully,

  
(W. Bharat Singh)  
Deputy Director

M/s Meenakshi Energy Private Ltd.  
Meenakshi House, 8-2-418, Road No.7  
Banjara Hills  
Hyderabad - 500 034

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Secretary (Environment), Forests and Environment Department Government of Andhra Pradesh.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.

4. The Chairman, Andhra Pradesh State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanath Nagar, Hyderabad - 500 018.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi- 110032.
6. The Chief Conservator of Forests, Regional Office (SZ), Kendriya Sadan, 4<sup>th</sup> Floor E&F Wings 17<sup>th</sup> Main Road, 1 Block, Koramangala, Bangalore-560 034.
7. The District Collector, Nellore District, Govt. of Andhra Pradesh.
8. The Director (EI), MOEF.
9. Guard file.
10. Monitoring file.

1/2/11  
(W.Bharat Singh)  
Deputy Director

J-13012/18/2009 - IA. II (T)  
Government of India  
Ministry of Environment & Forests



Tel no: 011- 24367257  
e-mail: w.bharat@nic.in  
Parivaran Bhavan, C.G.O. Complex,  
Lodi Road, New Delhi - 110003.  
Dated: 20.08.2010.

**OFFICE ORDER**

**Sub: Change in configuration from 300 MW to 350 MW in Phase-I i.e 2x150 MW + 1x300 MW and Phase-II i.e 1x300 MW Coal Based Thermal Power Plant of M/s Meenakshi Energy Pvt. Ltd. at village Thammenapatriam, in Chillakuru Mandal, in Nellore Distt., in Andhra Pradesh - reg.**

Sir,

This has reference to your letter no. CTP-20-DT-ENV-02-MEPL-MOEF-174, dated 20.05.2010 requesting for amendment in environmental clearance accorded by this Ministry vide its letter of even no. dated 02.07.2008; 03.06.2009 and 19.10.2009 its amendment.

2. The request has been examined and in acceptance of the recommendation of the Re-constituted Expert Appraisal Committee (Thermal Power) made in its 1<sup>st</sup> Meeting held during July 7-9, 2010, in reiteration of the earlier recommendation made by the EAC in its 64<sup>th</sup> Meeting held on January 30, 2010, it is informed that the following changes mentioned under shall be made in this Ministry's letter of even no. dated 03.06.2009, 19.10.2009 and 25.02.2010.

- a) The unit 300 MW mentioned in this Ministry's letter of even no. dated 03.06.2009, 19.10.2009 and 25.02.2010 shall now be substituted by 350 MW.
- b) At para no. 3 of this Ministry's letter dated 02.07.2008, condition no. (vii) and at para no. 4, condition no. (i) of this Ministry's letter of even no. dated 19.10.2009, shall now be substituted by the following:

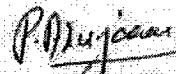
*"A Multi-Flue stack of 275 m height shall be provided with continuous online monitoring equipments for SO<sub>x</sub>, NO<sub>x</sub> and PM<sub>10</sub> and PM<sub>2.5</sub>. Exit velocity of flue gases shall not be less than 25 m/sec. Mercury emissions from stack shall also be monitored on periodic basis"*

*Cont'd.....*

3. All other conditions mentioned in this Ministry's aforesaid letter of even no. 02.07.2008; 03.06.2009; 19.10.2009 and 25.02.2010 shall remain the same.
4. In case any further changes in the scope of the project is proposed at any point of time, the same shall be undertaken only after obtaining fresh environmental clearances.

This issues with the approval of the Competent Authority.

Yours faithfully,

  
(Dr. P.L. Ahujarai)  
Director

M/s Meenakshi Energy Private Ltd.  
Meenakshi House, 8-2-418, Road No.7  
Banjara Hills  
Hyderabad - 500 034

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Secretary (Environment), Forests and Environment Department Government of Andhra Pradesh.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Andhra Pradesh State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanath Nagar, Hyderabad - 500 018.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi- 110032.
6. The Chief Conservator of Forests, Regional Office (SZ), Kendriya Sadan, 4<sup>th</sup> Floor E&F Wings 17<sup>th</sup> Main Road, 1 Block, Koramangala, Bangalore-560 034.
7. The District Collector, Nellore District, Govt. of Andhra Pradesh.
8. The Director (EI), MOEF.
9. Guard file.
10. Monitoring file.

  
(Dr. P.L. Ahujarai)  
Director



J-13012/18/2009 - IA. II (T)  
Government of India  
Ministry of Environment & Forests

Tel no: 011- 24367257  
e-mail: w.bharat@nic.in  
Paryavaran Bhavan, C.G.O. Complex,  
Lodi Road, New Delhi -110003.  
Dated: 25.02.2010.

**OFFICE ORDER**

**Sub: 1x300 MW Coal Based Thermal Power Plant (Phase-II Expansion) project at Thammenapatriam village, in Chillakuru Mandal, in Distt. Nellore, in Andhra Pradesh - reg.**

Sir,

This has reference to your letter no. CTP-20-DT-ENV-02-MEPL-MOEF-118, dated 30.10.2009 requesting for amendment in environmental clearance accorded by this Ministry vide its letter of even no. dated 19.10.2009, on the above mentioned power project.

2. The request has been examined and in acceptance of the recommendation of the Expert Appraisal Committee in its 58<sup>th</sup> Meeting held during November 10-11, 2009, the following changes as mentioned under shall be made in this Ministry's letter of even no. dated 19.10.2009.

3. At para no. 4, the condition at clause (v) read as: "Ash pond shall be lined with HDP lining. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached" shall be now substituted as "Ash pond shall be lined with HDP/LDP or any other suitable impermeable lining material such that at any instance no leachate takes place. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached".

4. At para no. 4, the condition at clause (vi) read as: "Closed cycle cooling system with natural draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms. COC of 5 shall be adopted" shall be now substituted as "Closed cycle cooling system with natural draft cooling towers shall be provided. The effluent shall be treated as per prescribed norms. COC 1.6 shall be adopted".

5. At para no. 4, the condition at clause (viii) read as: "The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed" shall be now substituted as "Waste water effluents from the plant (including domestic waste water and Blower blow down) shall be treated to conform to the prescribed standards and shall be re-circulated and reused within the plant. Discharge (if any) to the sea shall be done so after treatment and meeting the standard norm for discharge into marine coastal areas. Arrangements shall be made that effluents and storm water do not get mixed".

Cont'd.....

6. At para no. 4, the condition at clause (xi) the word 'Lucknow' shall be replaced by "Bangalore".

7. All other conditions mentioned in this Ministry's aforesaid letter of even no. 19.10.2009 shall remain the same.

This issues with the approval of the Competent Authority.

Yours faithfully,

(W. Bharat Singh)  
Deputy Director

M/s Meenakshi Energy Private Ltd.  
Meenakshi House, 8-2-418, Road No.7  
Banjara Hills  
Hyderabad – 500 034

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Secretary (Environment), Forests and Environment Department Government of Andhra Pradesh.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi- 110066.
4. The Chairman, Andhra Pradesh State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanath Nagar, Hyderabad – 500 018.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi- 110032.
6. The Chief Conservator of Forests, Regional Office (SZ), Kendriya Sadan, 4<sup>th</sup> Floor E&F Wings 17<sup>th</sup> Main Road, 1 Block, Koramangala, Bangalore-560 034.
7. The District Collector, Nellore District, Govt. of Andhra Pradesh.
8. The Director (EI), MOEF.
9. Guard file.
10. Monitoring file.

28/2/10  
(W.Bharat Singh)  
Deputy Director



J 13012/18/2008 -IA.II (T)  
Government of India  
Ministry of Environment & Forests

Paryavaran Bhawan  
CGO Complex, Lodi Road  
New Delhi-110 003  
Dated: 19<sup>th</sup> Oct, 2009

To

M/s Meenakshi Energy Private Ltd.  
Meenakshi House, 8-2-418, Road No.7  
Banjara Hills  
Hyderabad – 500 034

**Sub: 1x300 MW Coal Based Thermal Power Plant (Phase-II Expansion) project at Thammenapatriam village, in Chillakuru Mandal, in Distt. Nellore, in Andhra Pradesh-reg. Environmental Clearance.**

Sir,

The undersigned is directed to refer to letter no CTP-OO-DT-ENV-01-MEPL-MOEF-29, dated 15.07.2009 on the subject mentioned above. The Ministry of Environment & Forests has examined the application.

2. It is noted that the proposal is for grant of environmental clearance for setting up of 1x300 MW coal based thermal power project (Phase-II Expansion) at Thammenapatriam Village, in Chillakuru Mandal, in District Nellore, A.P. The land requirement will be 140 acres. The coordinates of the site are latitude 14°12'22" to 14°13'26" N, and longitude 80°04'41" to 80°06'12" E. Water requirement will be met from Kandaleru Creek. The project will be using 70% Indian coal and 30% imported coal. A twin flue stack of 220 meters height will be provided. Particulate emission shall be maintained at less than 50 mg/Nm<sup>3</sup>. The flue gas exit velocity shall be 25 m/s. The out fall point will be in the sea and not in Kandaleru Creek. Public hearing of the project was conducted on 24.07.2009. Cost of the project will be Rs 15900 million.

3. The project has been considered in accordance with the provisions of the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated September 14, 2006.

4. Based on the information submitted by you, as at Para 2 above and others, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA notification dated September 14, 2006, subject to the compliance of the following conditions:

- (i) A bi-flue stack of 220 m height shall be provided with continuous online monitoring equipments for SO<sub>x</sub>, NO<sub>x</sub> and Particulate matter. Exit velocity of flue gases shall not be less than 25 m/sec. Mercury emissions from stack shall also be monitored on periodic basis.
- (ii) High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm<sup>3</sup>.

- (iii) Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.
- (iv) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 100% fly ash utilization shall be ensured from 4th year onwards. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As,Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.
- (v) Ash pond shall be lined with HDP lining. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.
- (vi) Closed cycle cooling system with natural draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms. COC of 5 shall be adopted.
- (vii) No ground water shall be extracted for the project work at any stage.
- (viii) The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.
- (ix) A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.
- (x) Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.
- (xi) Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry at Lucknow.
- (xii) Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.
- (xiii) Regular monitoring of ground water in and around the ash pond area including heavy metals (Hg,Cr,As,Pb) shall be carried out, records maintained and six monthly reports shall be furnished to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.
- (xiv) A green belt of adequate width and density shall be developed around the plant periphery covering 1/3 of total area preferably with local species.

- (xv) First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (xvi) Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.
- (xvii) Regular monitoring of ground level concentration of SO<sub>2</sub>, NOx, RSPM and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.
- (xviii) A good action plan for R&R with package for the project affected persons be submitted and implemented as per prevalent R&R policy within three months from the date of issue of this letter.
- (xix) An amount of Rs 12.0 Crores shall be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs 2.0 Crore per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month along with road map for implementation.
- (xx) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xxi) The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>.
- (xxii) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- (xxiii) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- (xxiv) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the

respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely, SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.

(xxv) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by e-mail) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.

(xxvi) The environment statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.

(xxvii) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bangalore, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests, Bangalore.

(xxviii) Regional Office of the Ministry of Environment & Forests located at Bangalore will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NO<sub>x</sub> (from stack & ambient air) shall be displayed at the main gate of the power plant.

(xxix) Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.

(xxx) The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.

(xxxi) Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status.

4. The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry

may also impose additional environmental conditions or modify the existing ones, if necessary.

5. The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.

6. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

7. In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.

8. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.

9. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

(LALIT KAPUR)  
DIRECTOR

Copy to:-

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Secretary (Environment), Forests and Environment Department Government of Andhra Pradesh.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Andhra Pradesh State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanath Nagar, Hyderabad - 500 018.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi- 110032.
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7. The District Collector, Nellore District, Govt. of Andhra Pradesh.
8. The Director (EI), MOEF.
9. Guard file.
10. Monitoring file.

  
(LALIT KAPUR)  
DIRECTOR

**By Speed Post**

No.J-13011/18/2008-IA.II(T)  
Government of India  
Ministry of Environment & Forests

Paryavaran Bhawan,  
CGO Complex, Lodi Road,  
New Delhi-110 003.

Dated: 3<sup>rd</sup> June, 2009

To

M/s Meenakshi Energy Pvt. Ltd  
Meenakshi House  
8-2-418, Road # 7, Banjara Hills  
Hyderabad -500 034.

Sub: Change in configuration and enhancement of capacity from 540MW (4x135 MW) to 600 MW( 2x150 MW + 1x300 MW) Coal based TPP at Thammenapatham, District Nellore, Andhra Pradesh by M/s Meenakshi Energy Pvt. Ltd – Environmental clearance regarding.

Sir,

Reference is invited to your letter no. MEPL/Tech/MOEF Clearance/011 dated 15.4.2009 requesting for change in capacity and configuration from 540MW (4x135 MW) to 600 MW( 2x150 MW + 1x300 MW) in respect of the above mentioned project. Subsequent information furnished vide letter dated MEPL/THNMPT/ENVIRONMENT/2009-10/067 dated 16.4.2009 have also been considered.

2. It is noted that the environmental clearance for setting up 540 MW (4x135 MW) Coal based Thermal Power Plant at Thammenapatham, District Nellore, Andhra Pradesh was accorded vide this Ministry's letter of even no. dated 2.7.2008. M/s Meenakshi Energy Pvt. Ltd has now proposed to install 2x150 MW + 1x300 MW TPS instead of 4x135 MW . It is further noted that:-

- (i) No additional land is required due to change in capacity and the unit size.
- (ii) Coal requirement will increase by 0.35 MTPA.
- (iii) Water requirement will increase from 45 cusec to 52 cusec.
- (iv) CFBC boiler with 100% Imported coal for 2x150 MW units and 1x300 MW with PC Fired with 70% Indigenous coal & 30% Imported coal.

(v) Ash content in the blended coal to be used will be 27% instead of 11%.

3. Keeping in view the above, the Ministry of Environment & forests has no objection for change in the capacity and size of units from 540MW ( 4x135 MW) to 600 MW( 2x150 MW + 1x300 MW) subject to strict implementation of all the conditions contained in the environment clearance letter of even no. dated 2.7.2008 with following additional terms and conditions;

- (i) Land requirement should not exceed to 367.57 acres.
- (ii) Imported coal for 2x150 MW units and blended coal in the ratio of 70:30 (indigenous and imported) shall be used as fuel. The sulphur and ash content in coal shall not exceed 1.3% and 27% respectively. In case of variation of coal quality at the time of issue of LOA, a fresh reference shall be made to MOEF for suitable amendments to environmental clearance conditions wherever necessary.
- (iii) Lime injection with efficiency of sulphur removal upto 90% shall be provided.
- (iv) Two stacks of 220 m height, one bi-flue and one single flue ,each shall be provided with continuous online monitoring equipments for SO<sub>x</sub>, NO<sub>x</sub> and Particulate. Exit velocity of flue gases shall not be less than 25 m/sec.
- (v) 100 % fly ash and gypsum utilization from 4<sup>th</sup> year onward shall be ensured.
- (vi) An amount of Rs. 2.5 crores as capital and Rs. 40 lakh as recurring expenditure for the activities shall be made available as projects cost to be take up activities under CSR.
- (vii) Regular monitoring of ground water in and around the ash pond area including heavy metals (Hg,Cr,As,Pb) shall be carried out, records maintained and six monthly reports shall be furnished to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the groundwater quality is not adversely affected due to the project.
- (viii) Regular monitoring of ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, Hg,SPM and RSPM shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data so monitored shall also be put on the website of the company.

(ix) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.

(x) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

(xi) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data ( both in hard copies as well by e- mail) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.

This issues with the approval of the Competent Authority.

Yours faithfully,

  
( LALIT KAPUR)  
DIRECTOR

**Copy to:-**

- (i) The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001.
- (ii) The Principal Secretary, Department of Environment, Science & Technology, Government of Andhra Pradesh, Sectt. Building, Hyderabad-500 022.
- (iii) The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
- (iv) The Chairman, Andhra Pradesh Pollution Control Board, Paryavaran Bhawan, A-3, Industrial Estate, Sanathnagar, Hyderabad-500 018 - with a request to display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office for 30 days.

- (v) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
- (vi) The Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office(SZ), Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wings, 17<sup>th</sup> Main Road, II-Block, Koramangla, Bangalore-560034.
- (vii) The Director (EI), MOEF.
- (viii) Guard file.
- (ix) Monitoring file.

  
( LALIT KAPUR)  
DIRECTOR

BY SPEED POST

F. No. J-13011/18/2008-IA.II(T)  
Government of India  
Ministry of Environment & Forests

Paryavaran Bhawan  
CGO Complex, Lodi Road  
New Delhi-110 003

Dated : 2<sup>nd</sup> July, 2008

To

✓ M/s Meenakshi Energy Pvt. Ltd  
Meenakshi House  
8-2-418,Road # 7, Banjara Hills  
Hyderabad -500 034.

Sub: 540 MW (4x135MW)Coal based Power Project at Thamminapatnam,  
District Nellore, Andhra Pradesh by M/s Meenakshi Energy Pvt. Ltd -  
Environmental clearance regarding.

Sir,

The undersigned is directed to refer to your communication no. MEPL /Tech/MoEF/EIAFR/D No. 145/08 dated 22.2.2008 regarding the subject mentioned above. Subsequent information furnished by the District Collector, Nellore vide letter No. N-736 PCB/RO/NLR/2008-390 dated 26.4.2008 has also been considered.

2. It is noted that the proposal is for grant of environmental clearance for setting up of a 540 MW coal based Thermal power project at Thamminapatnam, District Nellore, Andhra Pradesh. The project will be implemented in two phases of 270 MW each. Total land requirement will be 367.57 acres which includes 50 acres for ash pond and 128 acres for greenbelt development. The coordinates of the project area are 14° 12' 22" to 14° 13' 19" N and 80° 05' 04.6" to 80° 06' 06" E. The project site is reported to be outside CRZ area. The Buckingham canal is reported at 747 m. The project will be based on CFBC technology with lime injection having efficiency of sulphur quenching up to 95%. Imported coal requirement will be 7184 TPD. Water requirement will be 45 cusecs and will be sourced from Kandaleru creek. No ecologically sensitive area is reported within 10 Km radius of the plant boundary, however, 4 reserve forests are reported within 10 Km radius. Public hearing was held on 12.2.2008. Total cost of the project is Rs. 2666.50 crores which includes Rs. 229.95 crores for environmental protection measures.

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9/7/08

3. The proposal has been considered and Ministry of Environment & Forests hereby accords environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions:-

- (i) No additional land in excess of 367.57 acres shall be acquired for any activity/facility of this project.
- (ii) Ash pond area shall not exceed 55 acres.
- (iii) For the activities to be taken up in the CRZ, necessary prior approval from the Competent Authority under the CRZ Notification, 1991 shall be obtained.
- (iv) A CRZ map of the site demarcating the HTL, LTL, CRZ boundary (duly demarcated by one of the Authorized Agencies), superimposing there on the project layout including the activities to be taken up in the CRZ along with recommendations of State Coastal Zone Management Authority shall be submitted within 3 months or before starting work on the project whichever is earlier. In case there is a need to change the layout in view of CRZ regulation, prior permission of this Ministry shall be obtained.
- (v) Imported coal only shall be used as fuel. The sulphur and ash content in coal shall not exceed 1.3% and 11% respectively.
- (vi) Lime injection with efficiency of sulphur removal upto 95% shall be provided.
- (vii) Two twin flue stacks of 220 m height each shall be provided with continuous online monitoring equipments for SO<sub>x</sub>, NO<sub>x</sub> and Particulate. Exit velocity of flue gases shall not be less than 22 m/sec.
- (viii) High efficiency Electrostatic Precipitator (ESP) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm<sup>3</sup>.
- (ix) Space provision shall be kept for retrofitting of FGD, if required at a later date.
- (x) Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.
- (xi) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 100% fly ash utilization shall be ensured from day one of the commissioning of the expansion plant. The bottom ash shall be disposed off in the ash pond in the conventional slurry mode.

- (xii) The cooling tower blow down shall be discharged from the cold end side and it shall be ensured that the temperature of discharged water shall be at the ambient temperature of the receiving waters.
- (xiii) The treated effluents conforming to the prescribed standards shall be discharged. Arrangements shall be made that effluents and storm water do not get mixed.
- (xiv) A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.
- (xv) Rain water harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rain water harvesting technology within a period of three months from the date of clearance and details shall be furnished.
- (xvi) Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Details of these measures along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry at Bangalore.
- (xvii) Storage facilities for liquid fuel such as LDO shall be made in the plant area where risk is minimum to the storage facilities. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modifications required, if any shall be incorporated in the DMP.
- (xviii) Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained and periodic reports shall be furnished to the Regional Office of this Ministry.
- (xix) A greenbelt shall be developed around the plant periphery preferably with local species. The total area under greenbelt shall cover about 128 acres of project area.
- (xx) First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (xxi) The location of colony should be shifted from the proposed location such that it does not fall in the pre-dominant downwind direction.

(xxii) Leq of Noise levels emanating from turbines shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.

(xxiii) Regular monitoring of ground level concentration of SO<sub>2</sub>, NOx, SPM and RSPM shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Six monthly reports shall be submitted to the Regional Office of this Ministry.

(xxiv) The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date *Enclosed 11/07/08* of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>.

(xxv) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.

(xxvi) Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry/ Regional Office/CPCB/SPCB.

(xxvii) Regional Office of the Ministry of Environment & Forests located at Bangalore will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment *Enclosed* Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring.

(xxviii) Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.

(xxix) The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.

(xxx) Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore /the CPCB/the SPCB who would be monitoring the compliance of environmental status.

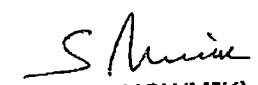
4. The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. MOEF may impose additional environmental conditions or modify the existing ones, if necessary.

5. The environmental clearance accorded shall be valid for a period of 5 years to start of production operations by the power plant.

6. In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.

7. The above stipulations would be enforced among others under the Water(Prevention and Control of Pollution) Act,1974, the Air(Prevention and Control of Pollution) Act,1981, the Environment (Protection) Act,1986 and rules there under, Hazardous Wastes (Management and Handling) Rules,1989 and its amendments, the Public Liability Insurance Act,1991 and its amendments .

8. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

  
( Dr.S. BHOWMIK)

ADDITIONAL DIRECTOR

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001.

2. The Principal Secretary, Department of Environment, Science & Technology, Government of Andhra Pradesh, Sectt. Building, Hyderabad-500 022.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Andhra Pradesh Pollution Control Board, Paryavaran Bhawan, A-3, Industrial Estate, Sanathnagar, Hyderabad-500 018 - with a request to display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office for 30 days.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
6. The Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office(SZ), Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wings, 17<sup>th</sup> Main Road, II-Block, Koramangla, Bangalore-560034.
7. The Director (EI), MOEF.
8. Guard file.
9. Monitoring file.

( Dr.S. BHOWMIK)  
ADDITIONAL DIRECTOR