

By Speed Post

No.J-13011/ 53/ 2008-IA.II (T)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan
CGO Complex, Lodi Road
New Delhi-110003

Dated: 30th January, 2009

To

The Chief General Manager (CEHSU)
M/s Maharashtra State Power Generation Co. Ltd. (Mahagenco)
Corporate Environment Health & Safety Unit,
Prakashgad Building, 3rd Floor,
Plot no.G-9, Bandra (East)
Mumbai-400 051.

Issued to P8
2/2/09

**Sub: 2x500 MW Chandrapur Super Thermal Power Project Expansion
at Chandrapur, District Chandrapur, Maharashtra by M/s
Mahagenco - Environmental clearance regarding.**

The undersigned is directed to refer to your communication no CGM/CEHSU/2X500 MW/CHN expn proj/1388 dated 20.09.2008 regarding the subject mentioned above. Subsequent information furnished vide letter dated 2.12.2008 and report from Central Pollution Control Board vide letter no. ZOW/Admn.ESS-75/2008-09/349 dated 4.12.2008 have also been considered.

2. It is noted that the proposal is for grant of environmental clearance for setting up of a 2x500 MW coal based thermal power project as an expansion of the existing Chandrapur thermal power project. The land requirement is estimated as 174 ha, which includes 34 ha for greenbelt. The proposed plant will be located within the existing complex. No additional land will be acquired. Water will be obtained from Irai Dam. Coal will be obtained from Machakata Coal Block. No additional ash pond will be created as part of this project. The existing ash pond will be used. The ash pond is located at a distance of 13 km from the power plant and the unutilized ash will be disposed in the form of slurry through close pipelines. Tadoba National Park and Andhari Wildlife Sanctuary is situated at a distance of 40 km from the proposed Thermal Power Station site. The public hearing for this project was conducted on 9th September, 2008. Total cost of the project is Rs 5500.00 crores, which includes Rs 198.06 crores for environmental protection measures.

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 shall be acquired for any activity/ facility of this project.
- (ii) Sulphur and ash contents in the coal to be used in the project shall not exceed 0.4% and 34% respectively at any given time.
- (iii) A bi-flue stack of 275 m height shall be provided with continuous online monitoring equipments for SO_x, NO_x and Particulate. Exit velocity of flue gases shall not be less than 22 m/sec.
- (iv) High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³.
- (v) Space provision shall be kept for retrofitting of FGD, if required at a later date.
- (vi) 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.
- (vii) 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. Unutilized fly ash, in emergency and bottom ash shall be disposed off in the ash pond in the form of slurry.
- (viii) Existing ash pond shall be used for disposal of bottom ash. No ash pond shall be created for this expansion project.
- (ix) Closed cycle cooling system with cooling towers shall be provided. COC of at least 6 shall be adopted and the effluents shall be treated as per the prescribed norms.
- (x) The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.
- (xi) A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.
- (xii) 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.
- (xiii) Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of the 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 Bhopal.
- (xiv) Storage facilities for auxillary liquid fuel such as LDO and/ HFO/LSHS 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. Sulphur content in the liquid fuel will not exceed 0.5%.

- (xv) Regular monitoring of ground water including heavy metals (Hg, Cr, As and Pb) in and around the ash pond area shall be carried out, records maintained and six monthly reports shall be furnished to the Regional Office of this Ministry.
- (xvi) A green belt of adequate width and density shall be developed around the plant periphery covering 34 acres of area preferably with local species.
- (xvii) Adequate funds shall be allocated for undertaking CSR activities.
- (xviii) First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (xix) 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.
- (xx) Regular monitoring of the ambient air quality in the impact zone shall be carried out and records maintained. In case the air quality levels exceed the prescribed standards, necessary corrective measures shall be taken.
- (xxi) Regular monitoring of ground level concentration of SO₂, NO_x, 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 shall also be put on the website of the company.
- (xxii) A detailed plan for health monitoring in the area within the impact zone shall be prepared and implemented along with local administration. The plan should, besides others, also provide for monitoring of respiratory disorders. The plan should be submitted within 3 months to this Ministry and its Regional Office at Bhopal.
- (xxiii) 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.
- (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 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 Bhopal 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 upload the compliance status in their website and update the same from time to time. Criteria pollutant levels (stack and ambient levels) will be displayed at the main gate of the power plant.
- (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 Bhopal /the CPCB/the SPCB who would be monitoring the compliance of environmental status.

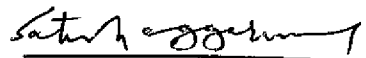
4. The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. MOEF may impose additional environmental conditions or modify the existing ones, if necessary.

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

6. 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.

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.

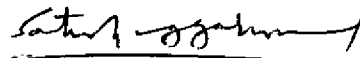
8. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.


(Dr. S.K. AGGARWAL)
DIRECTOR

Copy to:

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1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001.
2. The Secretary, Department of Energy and Environment, Govt. of Maharashtra, Mantralaya, Mumbai-400032, Maharashtra.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Maharashtra Pollution Control Board, Kalptaru point 3rd & 4th Floor Sion Matunga Scheme Road No. 8, opp. Cine Planet Cinema, near Sion Circle, Sion(East), Mumbai-400022 - with 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, Western Regional Office, Ministry of Environment & Forests, E-3/240, Arera Colony, Bhopal-462016.
7. Director (EI), MOEF
8. Guard file.
9. Monitoring file.


(Dr. S.K. AGGARWAL)
DIRECTOR



J-13011/53/2008-IA.II (T)
Government of India
Ministry of Environment, Forest and Climate Change

3rd Floor, Vayu Block,
Indira Paryavaran Bhawan, Jor Bagh Road,
Aliganj, New Delhi-110003

Dated: 31.03.2016

To

M/s. Maharashtra State Power Generation Co. Ltd. (MAHAGENCO)
'Prakashgad' Plot No. G-9,
Bandra (E), Mumbai- 400051
Tel. No. 022-2647-6231, 022-2647-4211; Fax: 022-2658-1400
E.mail. md@mahagenco.in , mdmspgcl@gmail.com

Sub: 2x500 MW Chandrapur Super Thermal Power Expansion Project (Unit 8 & 9) at Chandrapur, District Chandrapur, Maharashtra by M/s. Maharashtra State Power Generation Company Ltd. (MAHAGENCO) - reg. extension of validity of EC.

Sir,

This has reference to your letter & online application dated 12.08.2015 & 13.08.2015 respectively and letters dated 18.12.2015 & email dated 06.03.2016 on the above subject. It is noted that the Environmental Clearance for the above TPP was accorded on 30.01.2009.

2. The matter was placed before the Expert Appraisal Committee (Thermal Power) in its 45th Meeting held during 29th-30th October, 2015. In acceptance of the recommendation of the EAC and in view of the information/documents/clarifications furnished by you, with respect to the above mentioned power project, the Ministry hereby *extends the Validity of EC till 31.08.2017 for the start of production operations by the TPP* subject to the following additional conditions.

3. The following additional conditions are stipulated for compliance:

- xxxi) *The action plan formulated by CPCB and SPCB for the Critically Polluted Area (CPA) of Chandrapur shall be strictly complied.*
- xxxii) The standards stipulated by the Ministry vide Notification dated 07.12.2015 for Thermal Power Plants shall be duly complied.
- xxxiii) Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.
- xxxiv) A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute and results thereof analyzed every two year and reported along with monitoring reports. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.
- xxxv) Fugitive emissions shall be controlled to prevent impact on agricultural or non-agricultural land. In case of any proven damage to agricultural land/crop, necessary compensation shall be paid by the PP.

/c

(Sealed)
5/4/16

- xxxvi) Monitoring of surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report.
- xxxvii) No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.
- xxxviii) No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close co-ordination with the State Pollution Control Board.
- xxxix) Green belt shall also be developed around the Ash Pond over and above the Green Belt around the plant boundary.
- xl) CSR schemes identified based on need based assessment shall be implemented in consultation with the village Panchayat and the District Administration starting from the development of project itself. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating programmes.
- xli) For proper and periodic monitoring of CSR activities, a CSR committee or a Social Audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.
- xlii) An Environmental Cell comprising of at least one expert in environmental science/ engineering, ecology, occupational health and social science, shall be created preferably at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the Head of the Plant who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.
- xliii) The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.
4. All other conditions stipulated in the EC shall remain the same.

This issues with the approval of the Competent Authority.

Yours faithfully,


1.4.16.
(Manoj Kumar Gangeya)
Director

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Secretary, Department of Environment, Govt. of Maharashtra.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd & 4th Floors, Sion Matunga Scheme Road No. 6, Opp. Cine Planet, Sion Circle, Sion (E), Mumbai - 400 022.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
6. The Additional Chief Conservator of Forests (C), Ministry of Env., Forest and Climate Change, Regional Office (WCZ), Ground floor, East Wing, New Secretariat Building, Civil Lines, Nagpur- 440001.
7. The District Collector, Chandrapur District, Maharashtra.
8. Guard file/Monitoring file.
9. Website of MoEF&CC


1.4.16.
(Manoj Kumar Gangeya)
Director



No. J-13011/53/2008-IA.II (T)
Government of India
Ministry of Environment, Forests and Climate Change

3rd Floor, Vayu Block,
Indira Paryavaran Bhawan, Jor Bagh Road,
Aliganj, New Delhi-110003

Dated: 15.06.2018

To

The Chief General Manager,
M/s Maharashtra State Power Generation Co. Ltd.
(Formerly known as M.S.E.B)
Corporate Environment Health & Safety Unit
HDIL Towers, "A" Wing, 3rd Floor, Prof. A.K. Marg,
Bandra (E), Mumbai- 400 051.

Ph: 022-26582424/26584225; Fax: 022-26477273.

Sub: *2x500 MW Chandrapur Super Thermal Power Project Expansion Project at Chandrapur, District Chandrapur, Maharashtra by M/s Maharashtra State Power Generation Company Limited. -reg. amendment in Environment Clearance.*

Sir,

This has reference to your online application nos. IA/MH/THE/10241/2008 dated 27.9.2017 on the above mentioned subject.

2. It has been noted that Environmental Clearance for 2x500 MW Chandrapur Thermal Power Plant has been issued vide Ministry's letter dated 30.1.2009. Further, validity of the said EC has been extended till 31.8.2017 vide Ministry's letter dated 31.3.2016.

3. It has been noted that you have requested for amendment in EC for transporting the coal of approximately 2.0 MTPA (6000 TPD) through closed pipe conveyor for a length of 6.431 km from various mines of Western Coalfields Ltd (Bhatadi mines and Padmapur mines) to Padmapur Railway siding). Further, it will be transported by rail from Padmapur mines to the Chandrapur TPP.

4. It has been informed by you that the Coal requirement for 2x500 MW Chandrapur TPP is 5.0 MTPA. Presently, the coal is being transported by rail wagon from SECL & by road from various mines of WCL. The existing route of coal transportation is passing through Bhatadi, Kitoli, Mingaon, Padmapur, Durgapur, Chak Tirwanja, Chota nagpur, Vichora BK and Ambhora villages.

5. The capacity of the pipe conveyor is 500 TPH and will work in 2 shifts with effective conveying time as 14 hours. Nearest boundary of proposed eco-sensitive zone of Tadoba-Andhari Tiger Reserve is at 3.33 km from the proposed coal conveyor system and 13.27 km from the Tadoba Andhari Tiger Reserve. The conveyor will pass through 1 river (Erai river), 1 road, 2 nallahs, 2 HT lines and 14 LT lines. There is not requirement of private land acquisition. The land area of 1.54 ha of M/s WCL and M/s Mahagenco will be utilised for laying closed pipe conveyor.

6. As part of construction of pipe conveyor system, 4 pillars are proposed to be constructed inside the river bed of Erai river. Two pillars will be constructed at the edge of the Erai river. Construction work in river bed will be completed in 45 days and it will be

carried out in summer season when there is no water. Cost of the project is Rs. 123 Crores. Additional employment will be 30 persons.

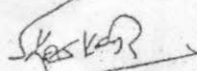
7. The matter was placed before the Re-constituted EAC (Thermal Power) in its 11th and 16th Meetings held 26.10.2017 and 19.4.2018 respectively. In acceptance of the recommendation of the EAC in its meeting held on 19.4.2018 and in view of the information/clarification furnished by you with respect to implementation of the above mentioned power project, the Ministry hereby amends the Environmental Clearances dated 30.1.2009 for transportation of coal by closed pipe conveyor for a length of 6.431 km with a capacity of 2.0 MTPA (6,000 TPD) from Bhatadi mines and Padmapur coal mines to Padmapur Railway siding subject to the following additional conditions:

- i. Construction of pillars in the water bodies (Rivers and Nallahs) shall be carried out in the dry season only.
- ii. Dust suppression system such as mist/dry fog jet sprinklers to be setup at the transfer points to arrest the fugitive dust emissions.
- iii. For every tree cut along the proposed route in the non-forest area, guidelines of Forest (Conservation) Act, 1980 shall be followed in consultation with the local State Forest Department.
- iv. Noise level shall be in accordance with the Noise Pollution Rules.

8. All other conditions mentioned in this Ministry's letter of even no. dated 30.1.2009 and 31.3.2016 shall remain the same, as applicable.

This issues with the approval of the Competent Authority.

Yours faithfully,


(Dr. S. Kerketta)
Director, IA.I

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. The Addl. Principal Chief Conservator of Forests (C), Ministry of Env., Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur- 440001.
5. The Principal Secretary, Department of Environment, 15th Floor, New Administrative Building, Madam Cama Road, Mantralaya, Mumbai - 400032.
6. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd & 4th Floors, Sion Matunga Scheme Road No. 6, Opp. cine Planet, Sion Circle, Sion (E), Mumbai - 400 022.
7. The District Collector, Chandrapur District, Near Civil Court, Railway Station Road, Chandrapur, Maharashtra 442401.
8. Guard file/Monitoring File.
9. Website of MoEF&CC.

(Dr. S. Kerketta)
Director, IA.I