

I.W. No.: CE/FMC/1104

Date: 12/12/12

Inward No. CE/MSU/1834

Date: 13/12/12

**SPEED POST**

J 13012/75/2010-IA.II (T)

Government of India

Ministry of Environment & Forests

Ph: 011-2436 4067

e-mail: sarojmoef@yahoo.com

Paryavaran Bhawan, CGO Complex,

Lodi Road, New Delhi-110 003

Dated: November 27, 2012.



सत्यमेव जयते

To

M/s Maharashtra State Power Generation Co. Ltd.

Prakashgad, Plot No. G-9,

Bandra (E),

Mumbai- 400 051.

**Sub: 1x660 MW (Unit- VI) Super-Critical Technology Bhusawal Coal Based TPP at Village Pimpri-Sekam, Bhusawal Taluk, in Jalgaon Distt., in Maharashtra- reg. Environmental Clearance.**

Sir,

The undersigned is directed to refer to your letters dated 18.05.2012, 30.05.2012, 16.06.2012, 05.07.2012, 10.07.2012, 11.07.2012, 17.07.2012 and 20.09.2012 on the subject mentioned above. The Ministry of Environment & Forests has examined the application.

2. It has been noted that the present proposal is for replacement of 62.5 MW by 1x660 MW (Unit- VI) Super-Critical Technology Bhusawal Coal Based TPP at village Pimpri-Sekam, Bhusawal Taluk, in Jalgaon Distt., in Maharashtra. Unit-I of 62.5 MW has been retired on 15.12.2010; Unit-II of 210 MW; and Unit-III of 210 MW are in operation. Unit-IV & Unit-V comprising of 500 MW each are in the process of being synchronized. The total plant area is about 673 Ha. Land requirement for the present proposal will be 115.93 ha (286.47 acres) out of which 276.44 acres is non-irrigated land and 10.03 acres is govt. land. The co-ordinates of the site will be located within Latitude 21°02'11.43" N to 21°03'02" N and Longitude 75°51'3.06" E to 75°51'58.4" E. The site is at an about 6.5 Km from Bhusawal town. A seasonal nallah passes near the site. A distance of 100 m has been maintained from the HFL of the same. Coal requirement will be 3.99 MTPA at 85% PLF. Washed coal will be used. LoA for domestic coal from WCL for 1.0 MTPA has been obtained as tapering linkage until Machakata Coal mines becomes operational. No additional land for ash dyke will be required for the proposed 1x660 MW. About 1.12 MTPA of fly ash and 0.28 MTPA of bottom ash will be generated. A Stack of 275m shall be provided. Water requirement of 50620 m<sup>3</sup>/day will be sourced from Ozerkheda reservoir. There are no National Parks, Wildlife Sanctuaries, Heritage Sites, Tiger/Biosphere reserves etc. within 10 km of the project site. Public Hearing was held on 08.02.2012. Cost of the project will be Rs.4548.0 Crores.

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 and presentation made before the Expert Appraisal Committee (Thermal Power) in its 52<sup>nd</sup> Meeting held during July 2-3, 2012, by you and your consultant viz. M/s Vimta Labs Ltd., Hyderabad, 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 Specific and General conditions:

**A. Specific Conditions:**

- (i) It shall be ensured that old units of unit 2x210 MW viz. Units-II and Unit-III are retrofitted to ensure that ESPs for these units complies with 50 mg/Nm<sup>3</sup>. Old ESP shall be accordingly replaced.
- (ii) Additional coal requirement of about 1.99 MTPA will be obtained from other power plants of M/s MAHAGENCO which are being shut down, only as an interim period until Machakata Coal mines becomes operational.
- (iii) Scheme for implementation for harnessing solar power within the premises of the plant particularly at available roof tops shall be formulated and status of implementation shall be submitted to the Regional Office of the Ministry from time to time.
- (iv) Space provision for installation of FGD shall be provided for future use.
- (v) Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5 % and 34 % respectively at any given time. In case of variation of coal quality at any point of time fresh reference shall be made to the Ministry for suitable amendments to environmental clearance condition wherever necessary.
- (vi) A long term study on radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. 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.
- (vii) Fugitive emissions shall be controlled to prevent impact on agricultural or non-agricultural land is affected. Damage to any land.

- (viii) Fly ash shall not be used for mine void filling or agricultural purpose.
- (ix) A stack of 275 m height with flue gas velocity not less than 22 m/s shall be installed and provided with continuous online monitoring equipments for SO<sub>x</sub>, NO<sub>x</sub> and PM<sub>2.5</sub> & PM<sub>10</sub>. Mercury emissions from stack may also be monitored on periodic basis.
- (x) High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm<sup>3</sup>.
- (xi) 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.
- (xii) Utilisation of 100% Fly Ash generated shall be made from **day one** of operation of Unit-VI (660 MW). Status of 100 % ash utilization of other units shall be submitted to the R.O of the Ministry and the State Pollution Control Board from time to time.
- (xiii) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 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.
- (xiv) Rehabilitation of abandoned Ash Pond shall ensure that ecological restoration is physically manifested within a period of three years and accordingly action plan formulated and details submitted to the Regional Office of the Ministry and the State Pollution Control Board.
- (xv) Three tier green belt shall be developed all around Ash Pond-II over and over Green Belt around the plant boundary.
- (xvi) Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.
- (xvii) Hydrogeology of the area shall be reviewed annually from an institute/ organization of repute to assess impact of surface water and ground regime (especially around ash dyke). In case any deterioration is observed specific mitigation measures shall be undertaken and reports/ data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.

- (xviii) No ground water shall be extracted for use in operation of the power plant even in lean season.
- (xix) 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.
- (xx) COC of 5.0 shall be adopted.
- (xxi) Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted 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.
- (xxii) Monitoring surface water quality and quantity in the area 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 be undertaken.
- (xxiii) Waste water generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB.
- (xxiv) The project proponent shall undertake rain water harvesting measures and shall develop water storage for use in operation of the plant. Rain water harvesting system shall be put in place which shall comprise of rain water collection from the built up and open area in the plant premises. Action plan for implementation shall be submitted to the Regional Office of the Ministry.
- (xxv) It shall be ensured that the area drainage is not disturbed due to the proposed project.
- (xxvi) The leveling in plant area should be minimum with no or minimal disturbance to the natural drainage of the area. If the minor canals (if any) have to be diverted, the design for diversion should be such that the diverted canals not only drains the plant area but also collect the volume of flood water from the surrounding areas and discharge into marshy areas/major canals that enter into creek/nallah etc. Major canals should not be altered but their bands should be strengthened and desilted.
- (xxvii) The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with

implementation schedule for providing free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.

- (xxviii) As part of CSR, regular health check-up of villagers in the nearby villages shall to be carried out and records maintained.
- (xxix) A time bound implementation of the CSR shall be formulated within **six months** and submitted to the Ministry. It shall be ensured that an in-built monitoring mechanism for the CSR schemes identified and R&R are in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time. The achievements should be put on company's website.
- (xxx) CSR scheme shall be undertaken based on need based assessment in and around the villages within 5 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR employment of local youth after imparting relevant training as may be necessary shall be undertaken as committed.
- (xxxi) An amount of Rs 18.20 Crores shall be earmarked as one time capital cost for CSR programme as committed by the project proponent. Subsequently a recurring expenditure of Rs 3.64 Crores per annum till the life of the plant shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within six month along with road map for implementation.
- (xxxii) Green Belt consisting of 3 tiers of plantations of native species around plant and 100 m width shall be raised. The density of trees shall not less than 2500 per ha with survival rate not less than 80 %.
- (xxxiii) An Environmental Cell comprising of atleast one expert in environmental science / engineering, occupational health and social scientist, shall be created 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 organization who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.

**B. General Conditions:**

- (i) The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.
- (ii) A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.
- (iii) 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.
- (iv) Storage facilities for auxiliary liquid fuel such as LDO/ 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.
- (v) First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (vi) Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dB(A) from source. 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.
- (vii) Regular monitoring of ambient air ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub> & PM<sub>10</sub> 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.
- (viii) Provision shall be made for the housing of construction labour (as applicable) 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.

- (ix) 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>.
- (x) 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.
- (xi) The proponent shall upload the status of compliance of the stipulated environmental clearance 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 (PM<sub>2.5</sub> & PM<sub>10</sub>), 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.
- (xii) 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 environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.
- (xiii) **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, 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.**
- (xiv) Regional Office of the Ministry of Environment & Forests 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.**

- (xv) 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.
- (xvi) 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.
- (xvii) Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry / CPCB/ SPCB who would be monitoring the compliance of environmental status.

5. 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.

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

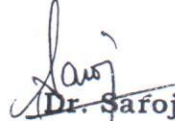
7. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

8. 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.

9. 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, Handling & Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.

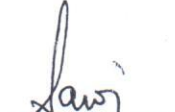
10. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

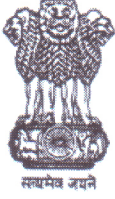
Yours faithfully,

  
(Dr. Saroj)  
Scientist 'F'

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 Maharashtra.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Maharashtra Pradesh State Pollution Control Board, Kalpataru Point, 3<sup>rd</sup> & 4<sup>th</sup> 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 Chief Conservator of Forests, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, Arera Colony, Ravishankar Nagar, Bhopal - 462016.
7. The District Collector, Jalgaon District, Govt. of Maharashtra.
8. The Director (EI), MOEF.
9. Guard file.
10. Monitoring file.

  
(Dr. Saroj)  
Scientist 'F'



**J-13012/75/2010-IA.II (T)**  
**Government of India**  
**Ministry of Environment, Forests and Climate Change**

3<sup>rd</sup> Floor, Vayu Block,  
Indira Paryavaran Bhawan, Jor Bagh Road,  
Aliganj, New Delhi-110003.

Dated: 30.05.2017

To

M/s Maharashtra State Power Generation Co. Ltd.  
Prakashgad, Plot No. G-9,  
Bandra (E),  
Mumbai- 400 051.

**Sub: 1x660 MW (Unit- VI) Super-Critical Technology Bhusawal Coal Based TPP at Village Pimpri-Sekam, Bhusawal Taluk, in Jalgaon Distt., in Maharashtra by M/s Maharashtra State Power Generation Co. Ltd. - reg. extension of validity of Environmental Clearance.**

Sir,

The undersigned is directed to refer to your online application dated 28.04.2017 on the subject mentioned above.


2. It has been noted that the Environment Clearance for the above mentioned project has been issued vide Ministry's letter dated 27.11.2012, which is valid for five years i.e. till 26.11.2017. It has also been noted that you have requested for extension of validity of Environment Clearance for five years owing to delay in project implementation activities.

3. The Ministry has examined the application. Inline with Ministry's EIA amendment notification vide S.O.3944(E) dated 14.09.2016, the said Environment Clearance is valid for seven years i.e. till 26.11.2019.

4. All other conditions stipulated in the EC dated 27.11.2012 remain the same as applicable.

This issues with the approval of concerned authority.

Yours faithfully,

  
**(Dr. S. Kerketta)**  
**Director (IA-I)**

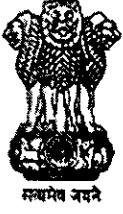
Copy to:

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 Secretary, Department of Environment, Mantralaya, Govt. of Maharashtra, Mumbai-400032.
6. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3<sup>rd</sup> & 4<sup>th</sup> Floors, Sion Matunga Scheme Road No. 6, Opp. cine Planet, Sion Circle, Sion (E), Mumbai – 400 022.
7. The District Collector, Jalgaon District, Maharashtra.
8. Monitoring/Guard file.
9. Website of MoEF&CC.



**(Dr. S. Kerketta)**  
**Director (IA-I)**



**F.No.J-13012/75/2010-IA.II (T)**  
**Government of India**  
**Ministry of Environment, Forests and Climate Change**

3<sup>rd</sup> Floor, Vayu Block,  
Indira Paryavaran Bhawan, Jor Bagh Road,  
Aliganj, New Delhi-110003.

Dated: 14.01.2020

To

The Chief General Manager (E&S)  
**M/s Maharashtra State Power Generation Co. Ltd.**  
HDIL Towers, 4<sup>th</sup> Floor, A-Wing, Prof. A.K. Marg,  
Bandra (E), Mumbai- 400051.

**Sub: 1x660 MW (Unit- VI) Super-Critical Technology Bhusawal Coal Based TPP at Village Pimpri-Sekam, Bhusawal Taluk, Jalgaon Distt., in Maharashtra by M/s Maharashtra State Power Generation Co. Ltd. - reg. extension of validity of Environmental Clearance.**

Sir,

The undersigned is directed to refer to your online application No. **IA/MH/THE/124319/2019 and IA/MH/THE/124253/2019** dated 28.04.2017 on the subject above mentioned subject.

2. It has been noted that you have requested for extension of validity of Environment Clearance dated 27.11.2012 for a period of three years owing to delay in project implementation activities.
3. It has been noted that the Environment Clearance for the above mentioned project has been issued vide Ministry's letter dated 27.11.2012, which is valid for five years i.e. till 26.11.2017. Inline with Ministry's EIA amendment notification vide S.O.3944(E) dated 14.09.2016, the said Environment Clearance is valid for seven years i.e. till 26.11.2019.
4. It has been informed that project activities could not be completed within seven years due various constraints in project management. It was informed that construction of Open storage yard and storage sheds have been completed. Further, construction of internal roads and drainage work is under progress. Permissions related to Consent to Establish from MPCB, permission from Air Ports Authority have been obtained. M/s BHEL has been awarded for constructing the power plant.
5. It has been informed that the volume of 2,95,000 m<sup>3</sup> excavation work, 9278 m<sup>3</sup> RCC work, 779 MT fabrication work, 16,000 MT Boiler material supply work, Boiler foundation and ESP foundation work have been completed as on date.
6. The Environmental clearance was granted considering the coal linkage from Machakata Coal Block, Odisha. It was informed that in view of Supreme Court decision dated 24/09/2014, the coal allocation of the Machakata Coal Block has been cancelled. The coal linkage to Bhusawal 1x660 MW project has changed and same has to be incorporate in EC amendment.
7. Estimated Project Cost as per the EC is Rs.4,548 Crores. Revised project cost including FGD and SCR to comply with new emission norms is Rs.5116.02 Crores. About Rs.400 Crores have been spent till date. It has been informed that

CSR Fund of Rs. 18.20 Crores towards capital cost has been forwarded to Competent Authority for necessary approval. This fund will be spent on various CSR activities as per demand of local people after approval from Competent Authority which is expected very shortly.

8. The proposal was appraised by Re-constituted EAC (Thermal) in its 35<sup>th</sup> meeting held on 14.11.2019. In acceptance of the recommendations of the Re-constituted EAC (Thermal Power) in its meeting held on 14.11.2019 and in view of the information, clarifications, documents submitted by you, **the Ministry hereby extends the validity of Environmental Clearance** dated 27.11.2012 for further period of three years (w.e.f. 27.11.2019 till 26.11.2022) subject to following additional conditions:

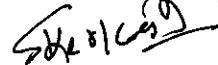
- i. Progress (both physical and financial) of construction of power plant including provisions installation of FGD and SCR shall be submitted as a part of six monthly compliance report.
- ii. Emission norms and specific water consumption as per the Ministry's norms dated 7.12.2018 and 28.6.2018 shall be complied with. As committed, Flue-Gas Desulphurisation Unit and Selective Catalytic Reactor to control SO<sub>2</sub> and NO<sub>x</sub> respectively shall be installed.
- iii. Technology selection for adoption of FGD for control of SO<sub>x</sub>. In case of wet FGD, source of limestone, impact of transportation, handling, storage and disposal of Gypsum including land requirement.
- iv. Alternate technology analysis and justification of Technology Selection for NO<sub>x</sub> reduction.
- v. The stack emissions (minimum, maximum, average and 98% percentile) shall be submitted for the period of six months in the compliance report. Further, daily water withdrawal, consumption, power generation and average PLF shall be submitted. The specific water consumption per MWhr shall be calculated based on water consumption and power generation and to be submitted in the compliance report.
- vi. The commitment letter in the form of undertaking for shutting/closing down the existing unit of 210 MW capacity which was commissioned in 1982 and more than 25 years shall be submitted with the date of closure.
- vii. Further, Specific Condition No.i of EC dated 27.11.2012 states that existing units (Unit-II & III: 2x210 MW) shall be retrofitted with ESPs to ensure that PM emissions will be below 50 mg/Nm<sup>3</sup>. Status of this conditions shall be submitted.

9. Further, you are requested to approach for amendment in EC for change in coal source after coal linkage from Standing Committee, Ministry of Coal is granted along with emission dispersion modeling study.

10. All other conditions stipulated in the EC dated 27.11.2012 and vide letter dated 30.5.2017 remain the same as applicable.

This issues with the approval of concerned 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 Deputy Director General 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 Secretary, Department of Environment, Mantralaya, Govt. of Maharashtra, Mumbai-400032.
6. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3<sup>rd</sup> & 4<sup>th</sup> Floors, Sion Matunga Scheme Road No. 6, Opp. cine Planet, Sion Circle, Sion (E), Mumbai - 400 022.
7. The District Collector, Jalgaon District, Maharashtra.
8. Monitoring/Guard file.
9. Website of MoEF&CC.

5/11

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**(Dr. S. Kerketta)**  
**Director (IA-I)**





**F.No.J-13012/75/2010-IA.II(T)**  
**Government of India**  
**Ministry of Environment, Forests and Climate Change**  
**(Impact Assessment Division)**

3<sup>rd</sup> Floor, Vayu Block,  
Indira Paryavaran Bhawan, Jor Bagh Road,  
Aliganj, New Delhi-110003.

Dated: 11.09.2020

To

The Chief General Manager (E&S)  
**M/s Maharashtra State Power Generation Co. Ltd.**  
HDIL Towers, 4<sup>th</sup> Floor, A-Wing, Prof. A.K. Marg,  
Bandra (E), Mumbai- 400051.

**Sub: 1x660 MW (Unit- VI) Super-Critical Technology Bhusawal Coal Based TPP at Village Pimpri-Sekam, Bhusawal Taluk, Jalgaon Distt., in Maharashtra by M/s Maharashtra State Power Generation Co. Ltd. - reg. Amendment in EC for change in coal source and flue gas exit velocity.**

Sir,

The undersigned is directed to refer to your online application No.**IA/MH/THE/146614/2020** dated 6.3.2020 on the subject above mentioned subject.

2. It has been noted that you have requested for amendment in Environment Clearance (EC) dated 27.11.2012 for change in coal source from existing Machakuta mines to WCL/MCL/SECL mines and revision of stack parameters due to implementation of FGD systems.

3. It has been noted that the Environment Clearance for the above mentioned project has been issued vide Ministry's letter dated 27.11.2012, which is valid for five years i.e. till 26.11.2017. The validity of EC dated 27.11.2012 was extended till 26.11.2022 (outerlimit of 10 years) vide Ministry's letter dated 14.01.2020.

4. It has been noted that as per the EC, the coal requirement is 3.99 MTPA which is to be sourced from Machakata Coal Block, Talcher Coalfields, District Angul, Odisha. Based on Hon'ble Supreme Court decision dated 24.9.2014, the coal block was cancelled. It has been informed that the Standing Committee on Linkages, Ministry of Coal vide letter dated 15.12.2020 permitted to use the existing linkages of Koradi Unit-5, Parli Unit-3, Bhusawal Unit-2 as these units were permanently shut down. The coal will be sourced from WCL, SECL and MCL mines.

5. It has been informed that it is expected that 80-90% of coal will be sourced from WCL mines and remaining quantity will be procured from SECL & MCL mines. The coal will be transported by rail only. The present coal requirement has now been reduced to 3.18 MTPA. The restrictions of ash content in coal to be less than 34% is applied for SECL and MCL coal as the coal source is more than 500 km. In such case, the washed coal will be used to meet the Ministry's notification dated 2.1.2014.

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6. The incremental ground level concentrations concentrations have been predicted with change in coal source for its characteristics and with new pollution control equipment. The results were compared with EIA results computed during the grant of EC which are within the National Ambient Air Quality Standards.

Parameter	Incremental GLCs as per Old EIA, 2009	Incremental GLCs with FGD and SCR & New coal source	Resultant concentration (baseline incremental)	NAAQS
PM ( $\mu\text{g}/\text{m}^3$ )	0.65	0.139	75.139	100
SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	15.78	2.04	18.04	80
NO <sub>x</sub> ( $\mu\text{g}/\text{m}^3$ )	5.31	1.35	30.35	80

7. It has been informed that the FGD is planned to control Sulphur emissions, and accordingly it has been requested to amend the exit velocity of flue gases from stack to 18.3 m/s instead of existing 22 m/sec as stipulated in the EC. It has been informed that the stack height of 275 m will remain the same.

8. The proposal was appraised by Re-constituted EAC (Thermal) in its meeting held on 10.4.2020. In acceptance of the recommendations of the Re-constituted EAC (Thermal Power) in its meeting held on 10.4.2020 and in view of the information, clarifications, documents submitted by you, **the Ministry hereby amends the EC dated 27.11.2012 for change in coal source from Machakata Mines to WCL/SECL/MCL mines and regarding change in flue gas exit velocity** subject to following additional conditions:

- i. As proposed, a stack of 275 m height with flue gas velocity not less than 18.3 m/s shall be installed along with Flue-gas Desulphurisation System and provided with continuous online monitoring equipment for SO<sub>x</sub>, NO<sub>x</sub>, PM. Mercury emissions from stack may also be monitored on periodic basis.
  - ii. An interlocking arrangement shall be set up to shut down the power plant when Flu-gas Desulphurisation (FGD) is not functional.
  - iii. The transportation of coal is to be done by rail subject to Ministry's notification dated 21.5.2020.
  - iv. The ash content in coal is to be in accordance with the Ministry's notification dated 21.5.2020 and subsequent amendments.
  - v. Water consumption in the FGD, in case of wet lime dosing, and management of gypsum including its land requirement shall be provided.
9. All other conditions stipulated in the EC dated 27.11.2012, and vide letter dated 30.5.2017 & 14.01.2020 shall remain the same, as applicable.


This issues with the approval of concerned 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 Deputy Director General 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 Secretary, Department of Environment, Mantralaya, Govt. of Maharashtra, Mumbai-400032.
6. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3<sup>rd</sup> & 4<sup>th</sup> Floors, Sion Matunga Scheme Road No. 6, Opp. cine Planet, Sion Circle, Sion (E), Mumbai - 400 022.
7. The District Collector, Jalgaon District, Maharashtra.
8. Monitoring/Guard file.
9. Website of MoEF&CC.

  
Director, IA.I