

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

Date: 12/12/12

Inward No./CE/MSU/1834 13/12/12

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.



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 m³/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 52nd 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/Nm³. 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_x, NO_x and PM_{2.5} & PM₁₀. 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/Nm³.
- (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 bunds 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.
- (xxxii) 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.
- (xxxiii) 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 %.
- (xxxiiii) 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 SO₂, NO_x, PM_{2.5} & PM₁₀ 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 Parishad / 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_{2.5} & PM₁₀), SO₂, NO_x (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 31st 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_x (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.

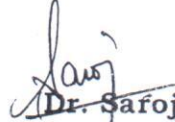
7. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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, 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 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

3rd 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, 3rd & 4th 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

3rd 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, 4th 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 m³ excavation work, 9278 m³ 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 35th 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:

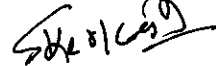
- i. Progress (both physical and financial) of construction of power plant including provisions installation of FGD and SCR shall be submitted as a part of six monthly compliance report.
- ii. Emission norms and specific water consumption as per the Ministry's norms dated 7.12.2018 and 28.6.2018 shall be complied with. As committed, Flue-Gas Desulphurisation Unit and Selective Catalytic Reactor to control SO₂ and NO_x respectively shall be installed.
- iii. Technology selection for adoption of FGD for control of SO_x. 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_x 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/Nm³. 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.

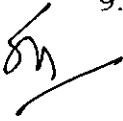
Yours faithfully,



(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, 3rd & 4th 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)



File No.: J-13012/75/2010-IA.II(T)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated 14/12/2023



To,

Shri Nitin s Wagh
M/s Maharashtra State Power Generation Company Ltd(MAHAGENCO)
edens@mahagenco.in

Subject: 1x660 MW (Unit- VI) Super-Critical Technology Bhusawal Coal Based TPP in an area of 115.93 Ha at Village Pimpri-Sekam, Taluk Bhusawal, District Jalgoan, Maharashtra by M/s Maharashtra State Power Generation Co. Ltd. - Extension of Validity Environmental Clearance (EC) – reg.

Sir/Madam,

This is in reference to your application submitted to Ministry vide proposal number IA/MH/THE/432684/2023 dated 08/06/2023 for an extension in validity of prior Environmental Clearance (EC) granted to the project under the provision of the EIA Notification 2006, as amended.

2. The particulars of the proposal are as below :

(i) Validity Extension Identification No.	EC23A0601MH5519991E
(ii) File No.	J-13012/75/2010-IA.II(T)
(iii) Clearance Type	Application for Validity Extension of EC- Form-6
(iv) Category	A
(v) Schedule No./ Project Activity	1(d) Thermal Power Plants
(vi) Sector	Thermal Projects
(vii) Name of Project	1x660 MW (Unit VI) Supercritical TPP by MAHAGENCO
(viii) Location of Project (District, State)	JALGAON, MAHARASHTRA
(ix) Issuing Authority	MoEF&CC
(x) EC date	
(xi) Status of implementation of the project	CTE was taken and project is under construction/development
(xiii) Whether any amendment to the earlier EC has been sought?	No

3. In view of the particulars given in the Para 2 above, the project proposal interalia including Form-6 were submitted to the MoEF&CC under the provision of Para 9.0 of the EIA notification 2006, as amended. Details in Form 6 can be accessed from the PARIVESH portal by scanning the QR Code above.

4. The brief about the reasons for an extension of validity of EC, as submitted by the Project Proponent in Form-6 and presented during EAC is annexed to this letter as Annexure (2).

5. The above-mentioned proposal has been considered by EAC in its 43rd meeting held on 19/06/2023. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed by scanning the QR Code above.

6. The EAC in its 43rd meeting held on 19/06/2023, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for extension in validity in Environment Clearance under the provision of EIA Notification, 2006, as amended.

7. The MoEF&CC has examined the proposal in accordance with the provisions contained in the Para 9 of Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the Expert Appraisal Committee hereby accords Extension of Validity Environmental Clearance (EC) dated 27.11.2012 for one more year i.e. till 26.11.2024 to 1x660 MW (Unit- VI) Super-Critical Technology Bhusawal Coal Based TPP in an area of 115.93 Ha at Village Pimpri-Sekam, Taluk Bhusawal, District Jalgoan, Maharashtra by M/s Maharashtra State Power Generation Co. Ltd., under the provisions of EIA Notification, 2006 and as amended along with the additional conditions mentioned at Annexure (1).

8. This issues with the approval of the Competent Authority

Copy To

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1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi - 110 001
2. The Chairman, Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi - 110 066
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi - 110 032 The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai (Maharashtra) – 32
4. The Addl. Principal Chief Conservator of Forest, Ministry of Env., Forest and Climate Change Regional Office Regional Office(WCZ), Ground Floor East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001
5. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 2nd – 4th Floor Opp. Cine Planet Cinema, Nr. Sion Circle, Sion (E) Mumbai – 400 022 6.
7. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor bagh Road, New Delhi
8. Guard File/Record File/Monitoring File/Website of MoEF&CC

Annexure 1

Additional EC Conditions

1. Action plan for green plantation shall be prepared. A dedicated team under supervision of project head shall work for developing green belt as per CPCB guidelines or as recommended in the EC letter. Green plantation shall be carried out before the month of October, 2023 around the plant boundary. Action plan and its implementation shall be certified by IRO, Nagpur in the month of October.
2. All the conditions mentioned in the EC dated read with amendment dated 11.09.2020 shall remain unchanged.

Annexure 2

The details of the project submitted by project proponent and ascertained from the document submitted are mentioned below:

- i. The Environment clearance was accorded to 1x660 MW Super Critical TPP at Bhusawal vide letter no. J-13012/75/2010-IA.II (T), dated 27.11.2012 which was valid for five years i.e. till 26.11.2017.
- ii. Further, in line EIA Notification 2006, as amended the Ministry issued a notification dated 14.09.2016, through which the said environment clearance was valid for seven years. A letter, J-13012/75/2010-IA.II (T), dated 30.05.2017, in this regard was obtained from ministry. Accordingly, the validity of EC extended till 26.11.2019.
- iii. Due to non-completion of project activities within the said timeline i.e 26.11.2019, further EC validity extension for three years i.e. up to 26.11.2022 was granted by ministry vide letter, J-13012/75/2010-IA.II (T), dated 14.01.2020.
- iv. Also, the amendment in Environment Clearance was obtained vide letter no. J-13012/75/2010-IA.II(T) dated 11.09.2020 regarding change in Coal Source and flue gas exit velocity.
- v. Further, in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns imposed, Ministry notification S.O. 221 (E), dated 18/01/2021 provided one-year exemption in the validity of EC. In view of the said notification, the validity of Bhusawal Project remains valid till 26.11.2023. A letter dated 10.03.2022 was also submitted to MoEF & CC to appraise the same.
- vi. **Reasons of the delay in implementation:** M/s BHEL (EPC contractor) off-loaded works from non-performing contractors for Natural Draft Cooling Tower (NDCT) civil work, Coal Handling Plant (CHP) civil work, Flue Gas Desulphurization (FGD) civil work and Ash Handling Plant (AHP) package civil work and awarded the contracts to the new contractors.

However, it has delayed the civil works of CHP, AHP and FGD package. Also the areas where delay occurred are given below:

- a. Slow progress of Civil works of CHP package - Slow progress of Work of CHP MCC-3 could prove major bottleneck for CHP commissioning, Construction of cable rack for extending the supply to CHP MCC is also in critical path. All the balance work of CHP is expected to finish by Feb-2024.
- b. Slow progress of Ash Disposal Pipe Lines (ADPL) - Pedestals of approximately 07 Km, AHP MCC-2 could be major bottleneck for coal firing and trial operation. In spite of constant follow-up from this office, work of pedestals in railway culvert and high way culvert is not taken up by M/s BHEL. This is major bottleneck in AHP works. The works of pushing ADPL under railway line is undertaken by MSPGCL is at approval stage and work is yet to start. All the works in ADPL are expected to finish by Feb-2024.
- c. Flue Gas Desulphurization (FGD) – Erection work in absorber, ducts, ducts support structure, RC PH, various tanks, FGD Control room etc under progress. Installation of FGD is statutory requirement for consent to operate. The progress of civil works is very slow and most of the fronts are still not handed over for mechanical and electrical erection agency. The civil works of M/s BJCL scope are awarded to M/s PMPL. However, work

progress is slow and fronts such as lime stone crusher & Gypsum dewatering building is standstill and these works are to be started on top priority. Expected date of completion of work is June 2024.

- d. Selective Catalytic Reduction System - SCR is being erected first time in India by M/s BHEL for this Project and there is enormous delay in engineering, supply and erection of SCR. The erection work got delayed due lack of erection methodology being first time erection by BHEL. Even after mobilization of 600 MT crane in August 2022, there is hardly any progress in SCR works. Now M/s BHEL decided to carry out erection of SCR from RHS of Boiler and it will be holdup for erection of galleries between Coal conveyer TP-4 and RHS of Coal Mill Bunkers. RHS being lower mills will be required for trial operation. It is a major bottleneck for trial operation of the unit. The work is expected to finish by Jan-2024.
- e. ETP & STP area- The work of ETP & STP is in progress which is critical in view of upcoming milestone such as commissioning of DM plant, Steam blowing, Coal firing and full load and the other milestone activities especially COD of the unit. The work is expected to finish by March-2024.
- f. Railway siding and Signal & Telecommunication (S&T) works - By observing quantum of work remaining in the railway siding, it can prove major bottleneck for readiness of CHP for trial operations. The works of S&T is under approval stage (MAHAGENCO scope) and yet to start. Considering cycle time required for the work it is expected to finish by Feb-2024.
- g. Delay in supply of material due to Covid-19 and steep rise in prices of the material - Borosilicate & its adhesive material is required for completion of chimney works is delayed due to outbreak of recent Covid in China. Further delayed due to steep rise in prices of copper and steel. M/s BHEL have to either renegotiate or reorder some material such as transformers, piping material, cables etc. which ultimately delayed the project works.

vii. **Progress of implementation of the project (Physical progress) is as under:**

Sr. No.	Packages	Present Status	% Completion	Completed/ Anticipated Date
1	Boiler- Civil works	Completed	85.66%	15/11/2019
2	Boiler- Structural works	Work in progress		15/08/2023
3	Boiler- Pressure parts completion	Work in progress		15/08/2023
4	TG- Civil works	Completed	90.56%	11/01/2021
5	TG-Structural works	Work in progress		15/07/2023
6	TG- Pressure parts completion (Boiler feed line piping)	Work in progress		15/08/2023

7	ESP	Work in progress	97.28%	15/07/2023
8	FGD-Civil works	Work in progress	34%	31/12/2023
9	FGD- Material supply	Work in progress		15/09/2023
10	FGD- Erection work	Work in progress		30/06/2024
11	Chimney	Work in progress	99%	10/09/2023
12	Coal Handling Plant	Work in progress	58.3%	28/02/2024
13	Ash Handling Plant	Work in progress	60%	28/02/2024
14	SCR	Work in progress	28%	31/01/2024
15	ETP & STP	Work in progress	25%	31/03/2024
16	Fuel Oil System	Completed	100%	30/03/2023
17	Cooling Towers	Work in progress	93%	15/07/2023
18	CW Pump house	Work in progress	95%	15/07/2023
19	CW Piping	Work in progress		15/07/2023
20	PT Plant	Work in progress	54%	15/08/2023
21	DM Plant	Work in progress	97%	15/07/2023
22	Air Compressor	Completed	100%	30/04/2023
23	Fire Protection Pump House	Work in progress	91%	30/06/2023
24	Fire Protection piping	Work in progress	25%	15/07/2023
25	Switch yard	Completed	100%	25/01/2023
26	Station Transformer	Work in progress	65%	25/07/2023
27	Unit Transformer	Work in progress		25/08/2023
28	Railway siding including S&T	Work in progress	73%	28/02/2024
29	Power Evacuation	Completed	100%	15/06/2023



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

3rd 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, 4th 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, Bhusaval 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.

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 ₂ ($\mu\text{g}/\text{m}^3$)	15.78	2.04	18.04	80
NO _x ($\mu\text{g}/\text{m}^3$)	5.31	1.35	30.35	80

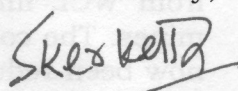
7. It has been informed that the FGD is planned to control Sulphur emissions, and accordingly it has been requested to amend the exit velocity of flue gases from stack to 18.3 m/s instead of existing 22 m/sec as stipulated in the EC. It has been informed that the stack height of 275 m will remain the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

- 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_x, NO_x, PM. Mercury emissions from stack may also be monitored on periodic basis.
 - An interlocking arrangement shall be set up to shut down the power plant when Flu-gas Desulphurisation (FGD) is not functional.
 - The transportation of coal is to be done by rail subject to Ministry's notification dated 21.5.2020.
 - The ash content in coal is to be in accordance with the Ministry's notification dated 21.5.2020 and subsequent amendments.
 - 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.

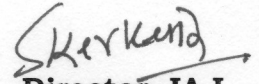
This issues with the approval of concerned authority.

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, 3rd & 4th 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