



F.No. J-13012/39/09-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: 25.03.2019

To

The Authorized Signatory.
M/s Adani Power Dahej Limited.
7 th Floor, "Sambhav Building"
Judges Bungalow Road, Bodakdev,
Ahmedabad, Gujarat - 380015

Sub: 4x660 MW Imported Coal based Thermal Power Plant at notified Dahej industrial area near village Suva, in Vagra Taluk, in Bharuch District, in Gujarat by M/s Adani Power Dahej Ltd.-reg. validity of extension of EC.

Sir,

The undersigned is directed to refer to your online application no. **IA/GJ/THE/2082/2009** dated 5.7.2018 and your online submission dated 14.9.2018 for extending validity of environmental clearance dated 25.10.2011 for further period five years, i.e. till 25.10.2023.

2. It has been noted that the Environmental Clearance for establishing 4x660 MW Coal based Thermal Power Plant in Bharuch District, in Gujarat vide Ministry's letter dated 25.10.2011 which was valid for five years, i.e. 24.10.2016. The EIA amendment Notification dated 14.9.2016 stipulates the validity of Environmental Clearance is seven years. By virtue of the EIA amendment notification and as the said EC dated 25.10.2011 is valid on the date of EIA Notification dated 14.9.2016, the validity automatically gets extended to seven years, i.e. till 24.10.2018.

3. It has been noted that you have requested for extension of validity of EC for further period of five years. It has been informed that only some infrastructure works such as boundary wall, stores, STP, RoU for transmission line, officers buildings and Hostel, etc have been established. The project construction activities could not be started as the Power Purchase Agreement is not available. Detailed Engineering is completed. Further, the order for BTG and BOP will be issued only after signing PPA. It is expected that the plant construction activities will be completed in 36 months for Unit-1 followed by three months' time for each unit (Unit-2, 3 & 4). The PERT chart indicating timelines for completion of all construction activities and commissioning of achieving COD in 36 months has been submitted. However, the zero date for construction will commence from the date of signing of PPA. It is expected that the Power Purchase Agreement (PPA) will signed within 6 months' time.

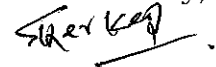
4. The proposal has been considered by the EAC (Thermal Power) in its 19th, 20th and 21st meetings held on 25.7.2018, 30.8.2018 and 26.9.2018 respectively. In

acceptance of the recommendations of the EAC in its 21st meeting held on 26.9.2018, and in view of the information/clarifications provided by you, **the Ministry hereby extends the validity of the EC dated 25.10.2011 for further period of three years, i.e. till 24.10.2021** subject to the following additional conditions.

- i. Revised emission standards as per the Ministry's notification dated 07.12.2015 and subsequent amendments notified from time to time shall be complied. In case, plant is ready for commissioning and not meeting revised emission norms, operations shall be stopped unless there is an extension given through a specific direction by MoEFCC/CPCB or amendment in notification issued.
 - ii. As per the Revised Tariff Policy Notified by Ministry of Power vide dated 28.01.2016, project proponent shall explore the use of treated sewage water from the Sewage Treatment Plant of Municipality/ local bodies/ similar organization located within 50 km radius of the proposed power project to minimize the water drawl from surface water bodies.
 - iii. The detailed progress report of the project construction activities shall be submitted to the concerned Regional Office.
5. All other conditions mentioned in this Ministry's letter of even no. dated 25.10.2011 shall remain the same, as applicable.

This issues with the approval of the Competent Authority.

Yours faithfully,



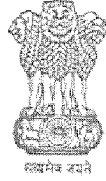
(Dr. S. Kerketta)
Director, IA. I

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 Additional Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5, Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal – 462016.
5. The Additional Chief Secretary, Forests & Environment Department, Government of Gujarat, Block-14, 8th Floor, Sachivalaya, Gandhinagar - 382 010, Gujarat.
6. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10A, Gandhinagar-382010.
7. The District Collector Office, Main Road, Railway Colony, Bharuch, Gujarat 392001.
8. Guard/Monitoring file.
9. Website of MoEF&CC.



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



BY SPEED POST

J 13012/39/2009-IA.II (T)

Government of India

Ministry of Environment & Forests

Ph: 011-2436 3973

E-mail: ahuja.rai@nic.in

Paryavaran Bhawan

CGO Complex, Lodi Road

New Delhi-110 003

Dated: 25th October, 2011

To

M/s Adani Power Dahej Ltd.
7th Floor, Sambhav Building
Judges Bungalow Road, Bodakdev
Ahmedabad - 380015.

Sub: 2640 MW (4x660 MW) Imported Coal Based Thermal Power Plant at notified Dahej industrial area near village Suva, in Vagra Taluk, in Bharuch Distt., in Gujarat - reg. Environmental Clearance

Sir,

The undersigned is directed to refer to your letters dated 08.03.2011 and 04.05.2011 on the subject mentioned above seeking environmental clearance under the provisions of EIA Notification, 2006. The Ministry of Environment & Forests has examined the application.

2. It has been noted that the proposal is for setting up of 4x660 MW (2640 MW) Super-Critical Imported Coal Based Thermal Power Plant at notified Dahej industrial area near village Suva, in Vagra Taluk, in Bharuch Distt., in Gujarat. Land requirement will be 842.50 acres which is in notified industrial area. The co-ordinates of the site are at Latitude 21°41'06.57" N to 21°42'16.28"N and Longitude 72°38'20.38" E to 72°39'44.35"E. Imported Coal requirement will be 8.61 MTPA at 90% PLF. Imported coal from Indonesia and South Africa will be used. The original proposal was with domestic and imported blended coal of 34% ash content. However as domestic coal linkage is not available, the proponent have chosen to go for 100% imported coal until domestic coal is available and have accordingly applied for environmental clearance based on imported coal. Transportation of imported coal from Dahej Port to power plant site shall be by closed conveyor system. Sulphur content in the imported coal will be 0.4 - 0.5% and Ash content will be 5-15 %. Ash pond/dyke area will be 145 acres, which exists within the project site. 1.032 MTPA of fly ash and 0.258 MTPA of bottom ash respectively will be generated. Fly ash will be supplied to M/s Lafarge India Pvt. Ltd. and M/s Sanghi Cement Ltd. Stack height will be 275 m. Water requirement will be 204 MCM/annum and will be sourced from the Narmada Estuary through an open channel over a distance of 780 m from project site. Induced cooling system will be adopted. There are no

national parks, wildlife sanctuaries, heritage sites, tiger/biosphere reserves etc. within 10 km of the site. Cost of the project will be Rs 14706.00 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 no.2 above and others and presentation made by you before the Expert Appraisal Committee (Thermal) in the 26th Meeting held during June 6-7, 2011, 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) CRZ clearance for permissible activities in CRZ area (as may be applicable) shall be obtained before starting construction activity.
- (ii) Prospective plan (vision document) for the site showing future expansion shall be formulated and submitted to the Ministry **within six months**.
- (iii) The structure of the power plant shall be designed in such a way that it can withstand the impact of Tsunami or Cyclone.
- (iv) In case source of fuel supply is to be changed at a later stage for the proposed 4x660 MW units now proposed to be run on imported coal from Indonesia and South Africa, the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change.
- (v) Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the Regional Office of the Ministry.
- (vi) Transportation of coal from Dahej Port to power plant site shall be by dedicated closed conveyor system.
- (vii) Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5 % and 15 % 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.
- (viii) Bi-flue stack of 275 m height shall be provided with continuous online monitoring equipments for SO_x, NO_x and Particulate Matter (PM_{2.5} & PM₁₀). Exit velocity of flue gases shall not be less than 22 m/sec.

Mercury emissions from stack shall also be monitored on periodic basis.

- (ix) NOC from the State Pollution Control Board shall be obtained.
- (x) 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.
- (xi) COC of atleast 1.5 shall be adopted.
- (xii) Intake shall be designed to ensure aggregation of fish and other marine creatures.
- (xiii) Continuous monitoring of marine biology shall be undertaken by an institute of repute. The marshy areas in the vicinity (if any) which may hold large quantities of water shall not be disturbed.
- (xiv) Transit storage (guard pond) shall be developed to ensure that cooling water discharge is done near about ambient temperature. Details shall be submitted to the Regional Office of the Ministry.
- (xv) A well designed 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 and road map for implementation shall be submitted to the Regional Office of Ministry.
- (xvi) There shall not be any contamination of soil, ground and surface waters (canals & village pond) with sea water in and around the project sites. In other wards necessary preventive measures for spillage from pipelines, such as lining of guard pond used for the treatment of outfall before discharging in to the sea and surface RCC channels along the pipelines of outfall and intake should be adopted.
- (xvii) Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.
- (xviii) Space provision for installation of FGD shall be made.
- (xix) High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission from the proposed plant does not exceed 50 ug/Nm³.
- (xx) 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.

- (xxi) Utilisation of 100% Fly Ash generated shall be made from 4th year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.
- (xxii) 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.
- (xxiii) 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.
- (xxiv) Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.
- (xxv) To absorb the ground level pollutants, to act buffer against strong winds arising out of tropical cyclones/ storms, to reduce heat load and ameliorate environment, there is a need for shelterbelts / greenbelts / tree cover along the coastline, bunds around marshy areas, roadsides, around the project boundaries, around village boundaries, ash dykes, railway lines, around protected monuments, forts, waste places, School Campuses and other vacant lots. Coconut plantations can be developed along the coastline and near villages, Schools and forts. Stands of *Casuariana* should also be developed on some dunes and along coasts. Bamboos, neem and other native trees should be planted in and around at the villages.
- (xxvi) The project proponent shall not hamper the vocation of the fishing community in the area (if any) and it shall be ensured that local fishing community shall be allowed to carry out their vocation.
- (xxvii) Aliabet Mangrove conservation and regeneration plan shall be formulated and implemented during the development of project itself and the status of implementation shall be submitted to the Regional Office of the Ministry from time to time. In addition about 100 ha in and around the area shall be developed into mangrove forests.
- (xxviii) In addition long term impact on Mangrove due to SO² emission shall be carried out in due course and Report submitted to the regional Office of the Ministry.
- (xxix) Green Belt consisting of three tiers of plantations of native species around plant and at least 75 m width shall be raised. Wherever 75 m width is not feasible a 50 m width shall be raised and adequate

justification shall be submitted to the Ministry. Tree density shall not less than 2500 per ha with survival rate not less than 80 %.

- (xxx) A common Green Endowment Fund shall be created and the interest earned out of it shall be used for the development and management of green cover of the area.
- (xxxix) A Fishermen Endowment Welfare Fund shall also be created not only to enhance the quality of life of fishermen community through creation of facilities for fish landing platforms / fishing harbour / cold storage, but also to provide relief in case of emergency situations such as missing of fishermen on duty due to rough seas, tropical cyclones and storms etc.
- (xxxixii) The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with implementation schedule for free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.
- (xxxixiii) Atleast three nearest village shall be adopted and basic amenities like development of roads, drinking water supply, primary health centre, primary school etc shall be developed in co-ordination with the district administration.
- (xxxixiv) 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.
- (xxxixv) An amount of Rs 58.82 Crores shall be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs 11.76 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 one month along with road map for implementation.
- (xxxixvi) CSR scheme shall be identified based on need based assessment in and around the villages within 5.0 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training may also undertaken. Income generating projects consistent with the traditional skills of the people shall be undertaken. Development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. Vocational training programme for

possible self employment and jobs shall be imparted to identify villagers free of cost.

- (xxxvii) It shall be ensured that in-built monitoring mechanism for the schemes identified is 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.

B. General Conditions:

- (i) A Corporate Environmental Policy shall be formulated and after due approval of the Board of Directors of the Company shall be submitted to the Ministry within six months. The policy shall specifically address issues of adherence to environmental policy so formulated and environmental clearance conditions stipulated for the power project and also others including matters related to violations of stipulated conditions (if any) to the Board.
- (ii) A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.
- (iii) A well designed rainwater harvesting shall be constructed. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of issue of clearance and details shall be furnished to the Regional Office of the Ministry.
- (iv) 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.
- (v) Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.
- (vi) 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.

- (vii) Monitoring 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 be undertaken.
- (viii) First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (ix) 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/noise less areas.
- (x) Regular monitoring of 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.
- (xi) 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.
- (xii) 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>.
- (xiii) 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.

- (xiv) An Environmental Cell shall be created at the project site itself and shall be headed by an officer of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to the Head of the Organization. The status report on the functioning of the Cell shall be submitted to the Regional office of the Ministry periodically. The Cell shall comprise of an expert in Marine Biology, Fishery and Mangroves preservation.
- (xv) 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.
- (xvi) 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.
- (xvii) 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.
- (xviii) 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 reference during monitoring. Criteria pollutants levels including NO_x (from stack & ambient air) shall be displayed at the main gate of the power plant.
- (xix) 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.

- (xx) 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.
- (xxi) Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status.
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 and Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.

Yours faithfully,


(Dr. P.L. Ahujara)
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 Gujarat.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Gujarat State Pollution Control Board, Paryavaran Bhawan, Sector 10-A, Gandhi Nagar- 382010- with a request to

display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office within 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, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, Arera Colony, Ravishankar Nagar, Bhopal - 462016.
7. The District Collector, Bharuch District, Govt. of Gujarat.
8. Guard file / Monitoring File.

(Dr. P.L. Ahujarai)
Scientist 'F'

