



J-13012/76/2009 - IA. II (T)
 Government of India
 Ministry of Environment & Forests

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 e-mail: plahujarai@yahoo.com
 Paryavaran Bhavan, C.G.O. Complex,
 Lodi Road, New Delhi -110003.
 Dated: 18.05.2011

OFFICE ORDER

Sub: 2X660 MW Super Critical Coal Based Thermal Power Plant at villages Painampuram & Sivarampuram, in Muthukur Mandal, in Nellore Distt., in Andhra Pradesh - reg.

Sir,

This has reference to your letter no. NECL/MoEF/2011/01, dated nil requesting for amendment in environmental clearance issued by this Ministry vide its letter of even no. dated 30.09.2010, on the above mentioned power project.

2. The request has been examined and based on the recommendation of the Expert Appraisal Committee (Thermal Power) in its meeting held during April 4-5, 2011, it is informed that the following changes as mentioned under shall be made in this Ministry's letter of even no. dated 30.09.2010.

- (i) The word '*imported coal*' mentioned in the subject matter and at Para No.2, second line shall be now substituted by '*domestic and imported coal in the ratio 70:30*'
- (ii) At Para no.2, in the fourth line the sentence read as "Imported" shall be now substituted as "*Domestic coal and Imported coal in the ratio 70:30 shall be used as fuel*".
- (iii) The specific condition no. (ii) under Para No.4, read as: "*In case source of fuel supply is to be changed at a later stage for the proposed 2x660 MW units now proposed to be run on imported coal from Indonesia, the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change. In such a case the necessity for re-conducting public hearing may be decided by the Ministry in consultation with the Expert Appraisal Committee*" shall be now deleted.

3. After clause no. (xxxi) under specific condition under Para no.4 the following shall be now added:

- (xxxi) Criteria pollutants levels including NO_x, RSPM (PM₁₀ & PM_{2.5}), SO_x (from stack & ambient air) shall be regularly monitored and results

displayed in your website and also at the main gate of the power plant.

(xxxiii) 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. The policy shall specifically address issues of adherence to environmental clearance conditions stipulated for the power project and others including matters related to violations (if any) to the Board.

4. All other conditions mentioned in this Ministry's aforesaid letter of even no. 30.09.2010 shall remain the same.

This issues with the approval of the Competent Authority.

Yours faithfully,


(W. Bharat Singh)
Deputy Director

M/s NCC Power Projects Ltd.
4th Floor, MJ Towers
Road No.12, Banjara Hills
Hyderabad - 500 0340

Copy to:

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


(W. Bharat Singh)
Deputy Director



J-13012/76/2009 -IA.II (T)
Government of India
Ministry of Environment & Forests

BY SPEED POST

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

Dated: September 30, 2010.

To

M/s Nelcast Energy Corporation Ltd.
159, TTK Road,
Alwarpet
Chennai - 600 018.

Sub: 2X660 MW Super Critical Imported Coal Based Thermal Power Plant at villages Painampuram & Sivampuram, in Muthukur Mandal, in Nellore District., in Andhra Pradesh - Reg. Environmental Clearance.

Sir,

The undersigned is directed to refer to letter dated 03.03.2010, on the subject mentioned above. The Ministry of Environment & Forests has examined the application.

2. It is noted that the proposal is for setting up of 2X660 MW Super Critical Imported Coal Based Thermal Power Plant at villages Painampuram & Sivampuram, in Muthukur Mandal, in Nellore District., in Andhra Pradesh. Land requirement will be 865 acres. Imported coal from Indonesia will be used as fuel. Coal will be imported through Krishnapatnam Port and transported by covered conveyor system over a distance of 5.8 km to the TPP. Coal requirement will be about 5.48 MTPA. Ash and sulphur content in imported coal will be 11% and 0.6 % respectively. Sea water from Bay of Bengal @ 313440 cum/day will be used. Desalination plant will be set up to meet sweet water requirement. Condenser cooling water shall be based on re-circulating system with natural draft cooling towers. No diversion of forest land is involved. Buckingham canal lies in the western side and 100 m HTL from the canal will be maintained. The Andhra Pradesh Coastal Zone Management Authority after examining the proposal has approved the reduction of CRZ in case of Buckingham Canal to 100m on its either side. A twin flue 275 m stack will be installed. High efficiency ESP followed by Bag Filter with outlet dust concentration of less than 50 mg/Nm₃ shall be installed. High Concentration Slurry Disposal system for fly ash disposal shall be adopted. Fly ash will be supplied to cement manufacturer's viz. M/s Bharti Cement Ltd. and M/s KCP Ltd. There are no wildlife sanctuaries, national parks, biosphere / tiger reserves, heritage sites etc. with 10 km of the proposed site. Public hearing was held on 06.01.2010. The estimated project cost is about Rs. 6822.0 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, 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) Environmental clearance is subject to obtaining CRZ clearance (as applicable) for permissible activities in CRZ area.
- (ii) In case source of fuel supply is to be changed at a later stage for the proposed 2x660 MW units now proposed to be run on imported coal from Indonesia, the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change. In such a case the necessity for re-conducting public hearing may be decided by the Ministry in consultation with the Expert Appraisal Committee.
- (iii) The project proponent shall examine in detail the possibility to adopt NIOT technology of desalination plant using Low Temperature Thermal Desalination (LTTD) process. In case the same is not feasible detailed explanation shall be submitted to the Regional Office of the Ministry.
- (iv) Local employable youth shall be identified and trained in skills relevant to the project for eventual employment in the project itself. The action taken report and details thereof to this effect shall be submitted to the Regional Office of the Ministry and the State Govt. Dept. concerned from time to time.
- (v) The project proponent shall establish at its own costs a Fish Landing Platform, Ice Plant etc. and shall accordingly submit to the Regional Office of the Ministry and the Fishery Department of the State Govt. a detailed plan and implementation schedule. The project proponent shall also prepare an action plan for implementation regarding providing sustainable fishing option for fishermen community in the area.
- (vi) An endowment of Fishermen Welfare Fund shall be created out of CSR component for specific activities to be finalized **within three months** for upliftment of the lives of fishing community in the region. Creation of facilities such as Fish Drying Platforms /Ice plant can as mentioned at clause (v) above can form a part of the scheme.

- (vii) The project proponent shall not hamper the vocation of the fishing community in the area and it shall be ensured that local fishing community shall be allowed to carry out their vocation.
- (viii) Existing Port facility in the region shall be utilized for import of coal instead of setting up individual jetty to avoid disruptions in coastal and inland ecology.
- (ix) Possibility for setting up transit storage within plant site for temperature control of effluent before discharge to the sea shall be carried out and details submitted **within three months** of starting construction activities to the Ministry.
- (x) 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.
- (xi) No waste (effluent) shall be discharged into canal systems, backwaters, marshy areas and the sea (as applicable) without treatment.
- (xii) The marshy areas in the vicinity (if any) shall not be disturbed.
- (xiii) Intake shall be from deep sea to avoid aggregation of fish and other marine creatures.
- (xiv) It shall be ensured that no contamination of soil, ground and surface waters (canals & village pond) with sea water in and around the project sites takes place. 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.
- (xv) Hydro-geological study of the area shall be **reviewed annually** and results submitted to the Ministry and concerned agency in the State Govt. In case adverse impact on ground water quantity and quality is observed, immediate mitigating steps to contain any adverse impact on ground water shall be undertaken.
- (xvi) A stack of 275 m height shall be provided with continuous online monitoring equipments for SO_x, NO_x and PM_{2.5} and 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.
- (xvii) Sulphur content in the imported coal shall not exceed 0.60%.
- (xviii) High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³.

- (xix) Provision for FGD shall be provided for future use as and when required.
- (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) A detailed coal analysis from a reputed lab for all contracted coal sources for the project shall be submitted **within three months**.
- (xxii) 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.
- (xxiii) 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 high concentration 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.
- (xxiv) Ash pond shall be lined with HDP/LDP 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.
- (xxv) For disposal of Bottom Ash (*if proposed to be undertaken*) in abandoned mines it shall be ensured that the bottom and sides of the mined out areas are adequately lined with clay before Bottom Ash is filled up. The project proponent shall inform the State Pollution Control Board well in advance before undertaking the activity.
- (xxvi) Closed cycle cooling system shall be provided. The Effluents shall be treated as per the prescribed norms. COC of atleast 1.25 shall be adopted.
- (xxvii) Green Belt consisting of 3 tiers of plantations of native species around plant and at least 100 m width shall be raised. Wherever 100 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 75 %.
- (xxviii) A good action plan for R&R (if applicable) with package for the project affected persons be submitted and implemented as per prevalent R&R policy **within three months** from the date of issue of this letter.
- (xxix) An amount of Rs 27.3 Crores shall be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs 5.5 Crores per annum shall be earmarked as recurring expenditure

for CSR activities. Details of the activities to be undertaken shall be **submitted within one month** along with road map for implementation.

- (xxx) As part of CSR programme the company shall conduct need based assessment for the nearby villages to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides 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. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.
- (xxxii) 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) The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.
- (ii) A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.
- (iii) A well designed rain water harvesting system shall be put in place within six months before commissioning of the plant, which shall comprises of rain water collection from the built up and open area in the plant premises. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology and details shall be furnished.
- (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) First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (viii) Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.
- (ix) Regular monitoring of ground level concentration of SO₂, NO_x, RSPM and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.
- (x) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xi) 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>.
- (xii) 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.

- (xiii) A dedicated Environment management Cell with suitable qualified personnel constituting of Marine Biologist and an ecologist shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- (xiv) 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, 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.
- (xv) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by e-mail) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.
- (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 EC 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 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.

- (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.

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

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

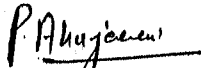
6. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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

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

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

Yours faithfully,


(Dr. P.L. Ahujara)
Director

Copy to:

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

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(Dr. P.L. Ahujara)
Director

1948

The following information was obtained from the records of the Department of the Interior, Bureau of Land Management, regarding the land owned by the United States in the State of California, as of January 1, 1948.

The total area of land owned by the United States in California is approximately 100,000,000 acres. This land is divided into several categories, including:

- Public Domain Land
- Land in Trust for the United States
- Land in Trust for the States
- Land in Trust for the Indians
- Land in Trust for the Reclamation
- Land in Trust for the Conservation
- Land in Trust for the War Relocation Authority
- Land in Trust for the War Relocation Authority
- Land in Trust for the War Relocation Authority

The following table shows the distribution of land in each category as of January 1, 1948:

Category	Area (Acres)
Public Domain Land	10,000,000
Land in Trust for the United States	20,000,000
Land in Trust for the States	30,000,000
Land in Trust for the Indians	10,000,000
Land in Trust for the Reclamation	15,000,000
Land in Trust for the Conservation	10,000,000
Land in Trust for the War Relocation Authority	5,000,000
Land in Trust for the War Relocation Authority	5,000,000
Land in Trust for the War Relocation Authority	5,000,000