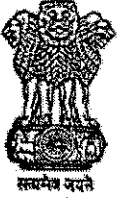


SPEED POST

J 13012/87/2009-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: March 7, 2013.

To

✓ M/s Sindya Power Generating Company Pvt. Ltd.
2nd Floor, Pottipati Plaza,
77, Nungambakkam High Road,
Chennai-600 034.
Tel: +91 44 28242 500, Fax: +91 44 28242 501

Sub: 2x660 MW Imported Coal based thermal power plant at villages Perunthottam & Agaraperunthottam, Sirkazhi Taluk, District Nagapattinum in Tamil Nadu - reg. Environmental Clearance.

Sir,

The undersigned is directed to refer to your letters dated 05.04.2012, 11.05.2012, 15.11.2012 and 08.12.2012 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 Imported Coal Based TPP at villages Perunthottam & Agaraperunthottam, Sirkazhi Taluk, District Nagapattinum in Tamil Nadu. Land requirement will be 594.18 acres, out of which 66.9 acres is Govt. revenue land; 37.62 acres is single crop agriculture land; 40.23 acres is dry land and 449.41 acres is agricultural land with no cultivation. About 430 acres of land has already been acquired. The co-ordinates of the site are located within Latitude 11°11'8.862" N to 11°12'9.782" N and Longitude 79°49'44.432" E to 79°50'37.597" E. Imported Coal requirement will be 6.11 MTPA at 85% PLF. Imported Coal will be obtained from Indonesia. FSA has been signed with M/s Sindya Resource Pte. Ltd. Ash and sulphur contents in imported coal will be 2-11% and 0.6% respectively. Calorific value will be 3850 Kcal/kg NAR (net as received). High Concentration Slurry disposal system for unutilized fly ash shall be proposed. About 1.76 MTPA of fly ash and 0.44 MTPA of bottom ash will be generated. Fly ash will be supplied to M/s Madras Cements Ltd. and M/s India Cement Ltd. Ash pond area will be 160 acres and co-ordinates of the ash pond site is located within Latitude 11°12'18.931" N to 11°12'45.891" N and Longitude 79°50'1.312" E to 79°50'46.592" E. Bi-flue Stack of 275m will be provided. Natural Draft cooling system will be installed. Water requirement of 2,67,792m³/day will be sourced from the Bay of Bengal through a pipeline at a distance of about

1.1 km from the project site. Approval from Tamil Nadu Maritime Board, Govt. of Tamil Nadu has recently been obtained on 07/04/2010. Desalination plant capacity will be 35,000 m³/day. Common jetty with M/s Empee Power Ltd. is being worked out. About 93 homestead losers and 200 land losers will be involved. There are no National Parks, Wildlife Sanctuaries, Heritage Sites, Tiger/Biosphere reserves etc. within ten km of the project site. Public Hearing was held on 07.02.2012. Cost of the project will be Rs.6996.0 Crores approximately.

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 62nd Meeting held during December 4, 2012, by you and your consultant viz. M/s B.S.ENVI-TECH Pvt. 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) CRZ clearance for permissible activities in CRZ area shall be obtained prior to starting any activity in CRZ area.
- (ii) The recommendation of environmental clearance shall be without prejudice to provisions of the Govt. of Tamil Nadu Order w.r.t Cauvery River.
- (iii) Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within **six months**.
- (iv) In case source of fuel supply is to be changed at a later stage (now proposed on imported coal from Indonesia/South Africa) 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.
- (v) The recommendations made by the Sub-Committee of the Expert Appraisal Committee (Thermal Power) while approving the site during recommendation for prescribing Terms of Reference as specified in its site inspection report, a copy of which was already made available to the project Proponent, shall be implemented and

status of compliance sent to the Regional Office of the Ministry from time to time.

- (vi) 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.
- (vii) Transportation of coal shall be strictly by tube conveyor system from the Port to the plant site.
- (viii) Sulphur and ash contents in the coal to be used in the project shall not exceed 0.6 % and 11 % 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.
- (ix) 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.
- (x) FGD shall be installed for first unit of 660 MW.
- (xi) High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission from the proposed plant does not exceed 50 mg/Nm³.
- (xii) 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.
- (xiii) 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.
- (xiv) 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.
- (xv) A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through reputed institutes like AMD, Hyderabad, Central Power Research Institute, Bangalore, Mangalore

University and report submitted to R.O of the Ministry from time to time.

- (xvi) 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.
- (xvii) The project proponent shall regenerate degraded water body (if any) located nearby within 5.0 km atleast.
- (xviii) As committed and separate budget of Rs 3.72 crores earmarked for desiltation of a large lake and water bodies identified at villages Perunthottam and Agaraperunthottam, the project proponent shall carry out desiltation works in consultation with the Public Works Department and village Panchayat and within a reasonable period during the development of the power project itself.
- (xix) Coastline stabilization in and around power project facilities shall be undertaken either by way of using capital dredging material or suitable method.
- (xx) COC of atleast 1.25 shall be adopted and report submitted within 3 months of operation of the plant. Waste water generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB.
- (xxi) 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 Ministry **within four months**.
- (xxii) Monitoring of surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.
- (xxiii) 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.

- (xxiv) Degenerated mangrove located in the study area (if any) shall be adopted and regenerated in consultation with the concerned Dept. of the State Government
- (xxv) Green Belt consisting of three tiers of plantations of native species around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 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 %.
- (xxvi) CSR schemes identified based on need based assessment shall be implemented in consultation with the village Panchayat and the District Administration starting from the development of project itself. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating programmes.
- (xxvii) At least 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.
- (xxviii) 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.
- (xxix) It shall be ensured that vocation of traditional fishing community is not hampered due to the activities of the power project. The project proponent shall ensure that the fishing community is involved in developmental process and welfare schemes for traditional fishing community is drawn for sustainable implementation.
- (xxx) An amount of Rs 26.20 Crores as one time investment shall be earmarked for activities to be taken up under CSR during construction phase of the Project. Recurring expenditure for CSR thereafter shall be Rs 6.60 Crores per annum till the life of the plant. Social Audit by a reputed University or an Institute shall be carried out annually and details to be submitted to the Ministry besides putting it on the Company's website.
- (xxxi) In addition to above, for rehabilitation of homestead losers and compensation, 93 houses (to be dislocated) as committed shall be built at has been stated to be earmarked. And the 200 people identified to have been dependent on the land of the TPP site for their livelihood shall be given alternative source of livelihood with the budget of Rs 10 lakhs earmarked for disbursement for them.

- (xxxii) A common **Green Endowment Fund** should be created by the project proponents out of EMP budgets. The interest earned out of it should be used for the development and management of green cover of the area.
- (xxxiii) Continuous monitoring of marine biology during construction and operational period of power plant shall be undertaken by an institute of repute like Faculty of Marine Sciences, Annamalai University.
- (xxxiv) A **Fishermen Endowment Welfare Fund** should 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.
- (xxxv) There should 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. This is just because in the areas around the projects boundaries there may be fertile agricultural land used for paddy or other crop cultivation
- (xxxvi) 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 Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the

proposal. The clearance letter shall also be put on the website of the Company by the proponent.

- (xi) The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM_{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.

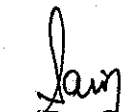
7. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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.

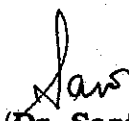
Yours faithfully,


(Dr. Saroj)
Scientist 'F'

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.

2. The Secretary (Environment), Environment Department, Government of Tamil Nadu.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Tamil Nadu State Pollution Control Board, No. 76, Mount Road, Mount Salai, Guindy, Chennai - 600 032
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, Nagapattinam District, Govt. of Tamil Nadu.
8. Monitoring file.


(Dr. Saroj)
Scientist 'F'