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By Speed Post

No. J-13011/10/2001-IA.II(T)  
Government of India  
Ministry of Environment & Forests

Paryavaran Bhawan  
C.G.O. Complex, Lodi Road  
New Delhi- 110 003.

Dated: 12<sup>th</sup> October, 2007

To

M/s JSW Energy( Vijaynagar) Ltd  
Jindal Mansion  
5A,Dr. G.Desmukh Marg  
Mumbai- 400 026

Subject: Augmentation of power generation capacity from 2x250 MW (Indian coal) to 2x300 MW (Imported coal) at Bellary, Karnataka by M/s JSW Energy (Vijaynagar) Ltd - Environmental Clearance Regarding.

Sir,

Reference is invited to your letter no. JSWEVL/Proj/3512 dated 23<sup>rd</sup> April, 2007 requesting augmentation of power generation capacity from 2x250 MW (Indian coal) to 2x300 MW (Imported coal) in respect of the above mentioned project. Subsequent information furnished vide letter dt. 21.09.2007 has also been considered.

2. It is noted that the environmental clearance for setting up 2x250 MW Thermal Power Plant at Toranagallu, Bellary distt. Karnataka by M/s Jindal Thermal Power Company Limited was accorded vide this Ministry's letter of even no. dated 20<sup>th</sup> August, 2004. M/s JSW ( Vijaynagar) Ltd has now proposed to install 2x300 MW TPS using imported coal as fuel instead of 2x250 MW based on Indian coal. It is further noted that due to the proposed change:-

- (i) No additional land is required.
- (ii) Coal requirement will decrease from 312 T/hr to 203 T/hr.
- (iii) COC will increase from 5 to 7
- (iv) Water requirement will decrease from 34230 m3/l. to 33109 m3/hr.

- (v) Maximum predicted ground level concentration of various pollutants namely; SO<sub>2</sub>, NO<sub>x</sub> and SPM will also come down as against the earlier projected values.
- (vi) The coordinates of the site are latitude 15° 10' 40" N to 15° 11' 25" N and longitude 76° 39' 40" E to 76° 40' 10" E.
- (vii) The project will be implemented by M/s JSW Energy ( Vijaynagar) Limited Instead of M/s Jindal Thermal Power Company Ltd.

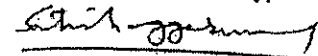
3. Keeping in view the above, the Ministry of Environment & Forests has no objection to the augmentation of power generation capacity from 2x250 MW (Indian coal) to 2x300 MW (imported coal) and incorporation of company's name as JSW Energy(Vijaynagar) Limited in place of M/s Jindal Thermal Power Company Ltd subject to the following conditions:-

- (i) The requisite prior permission from Chief Wildlife Warden shall be obtained for locating the proposed plant within 10 km of Daroji Dear Sanctuary.
- (ii) A twin flue stack of 275 m height with exit velocity of at least 25 m/s shall be provided with continuous online monitoring system.
- (iii) Closed Circuit Cooling System with cooling towers and COC of not less than seven shall be adopted.
- (iv) Greenbelt shall be developed covering 49.2 ha (28.8 ha existing + 20.4 ha proposed) in and around the plant periphery.
- (v) M/s JSW Energy ( Vijaynagar) Limited shall be responsible to implement the project with strict compliance of all the conditions and environmental safeguards contained in the environment clearance letter of even no. dated 20<sup>th</sup> August, 2004 and all commitments given by the M/s Jindal Thermal Power Company Ltd. Failure to comply with any of the stipulated conditions in any way by the implementing agency shall amount to revocation of environmental clearance by the Competent Authority.

4. All other conditions contained in this Ministry's letter of even no. dt. 20.08.2004 shall remain unchanged.
5. The environmental clearance accorded shall be valid for a period of 5 years to the start of production operations by the power plant.

This issues with the approval of the Competent Authority.

Yours faithfully,



( Dr.S.K.AGGARWAL)

DIRECTOR

**Copy to:**

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001.
2. The Secretary, Environment & Forests, Government of Karnataka, Bangalore.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Karnataka Pollution Control Board, 49, Parisara Bhawan, 4<sup>th</sup> & 5<sup>th</sup> Floor, Church street, Bangalore-580 001 with a request to display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office for 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, Ministry of Environment & Forests, Regional Office(SZ), Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wings, 17<sup>th</sup> Main Road, II-Block, Koramangla, Bangalore-560034.
7. The Director (EI), MOEF.
8. Guard file.
9. Monitoring file.

( Dr.S.K.AGGARWAL)  
DIRECTOR

JTPCL

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**BY SPEED POST**

No. J- 13011/ 10/2001.IA-II(T)  
Government of India/ Bharat sarkar  
Ministry of Environment & Forests  
(Paryavaran Aur Van Mantralaya)

Paryavaran Bhawan,  
CGO Complex, Lodi road,  
New Delhi-110003

Dated: 20<sup>TH</sup> August, 2004

To,

General Manager(Operations),  
Jindal Thermal Power Company Ltd.,  
Post Box No. 9, vill & Post.- Toranagallu.  
Distt. Bellary, Karnataka  
Pin.-583123.

Sub: **2x250 MW Thermal Power Plant (Expansion scheme) and change of fuel configuration in the existing 2x130 MW power plant at Toranagallu, Bellary district, Karnataka of M/s Jindal Thermal Power Company Limited- Environmental clearance reg.**

Sir,

The undersigned is directed to refer to your communications no. JPTCL/AUTH/1981 dated 25<sup>th</sup> Aug, 2001, JTPCL/AUTH/EXP/2450 dated 22<sup>nd</sup> Oct, 2002 and JTPCL/AUTH/2748 dated 6<sup>th</sup> Dec, 2003 on the above mentioned subject.

2. The proposal is regarding expansion of Jindal Thermal Power Plant by installation of two units of 250 MW each in the premises of existing power plant and change of fuel configuration in the existing 2x130 MW power plant. The existing infrastructure facilities will be utilized. Existing land is 102 ha and additional 150 ha is proposed to be acquired from the adjacent Jindal Vijaynagar Steel Complex. Coal requirement will be 2.80 MTPA. Capital cost of the project will be Rs. 2118.58 Crores. Cost of environmental protection is Rs. 106.65 crores.

3. On the basis of the information submitted by the project proponent from time to time and after its consideration by the Expert Committee for Thermal Power Projects, environmental clearance is hereby accorded subject to implementation of following terms and conditions:

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- i) All the conditions stipulated by Kanataka Pollution Control Board vide their letter no. KSPCB/CFE-CELL/DEO/AEO-2/JTPCL/2001-2002/101 dated 11<sup>th</sup> July, 2001 should be strictly implemented.
- ii) Coal requirement is estimated at 2.80 MTPA of washed coal for the expansion scheme having calorific value of 4000 K.Cal/kg with 34% ash content and 0.6% sulphur content in the worst case scenario.
- iii) A twin flue stack height of 220 m height shall be provided with continuous online monitoring equipment. Exist velocity of 25m/sec should be maintained.
- iv) Twin pass Electrostatic Precipitator(ESP) with adequate redundancy in field should be installed to limit outlet SPM emission from each flue to 75 ug/Nm<sup>3</sup> failing which the plant should be shut down.
- VI. Ash generation would be 0.95 MTPA at 100% PLF. 100% fly ash shall be utilised in dry form. Ash generated should be used in a phased manner as per provisions of the notification on Fly Ash Utilisation issued by the Ministry in September, 1999 and as amended in August, 2003. By the end of 9<sup>th</sup> year full fly ash utilisation should be ensured. Ash pond should be lined with 0.5 mm thick geo-membrane lining.
- VII. Water requirement should not exceed 11 MGD for all units. Reverse Osmosis (RO) plant should be set up to recycle treated waste water to cooling system and the R.O. rejects should be disposed off in the ash pond.
- VIII. Closed circuit cooling towers should be provided and the evaporation losses should not exceed 2%.
- IX. Central Groundwater Authority/ Board shall be consulted for finalisation of appropriate water harvesting technology within a period of two months from the date of clearance.
- X. Submit a copy of commitment for zero discharge of waste water after plant comes into operation.
- XI. Regular monitoring of water quality including heavy metals should be undertaken around ash pond and the project area to ascertain the change in the water quality, if any, due to leaching of contaminants from ash disposal area.
- XII. Noise level should be limited to 75 Leq and regular maintenance of equipment be undertaken. For people working in the area of generator and other high noise area, earplug should be provided.

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- XIII. Low Nox burners as well as Dampers should be used for reducing NOX in the existing as well as expansion units.
- XIV. Gaseous emissions and liquid effluent should conform to the standards prescribed by the concerned authorities from time to time.
- XV. Greenbelt should be developed in the vacant land available in the premises of the Jindal Vijaynagar Steel Plant and JTPCL plant area.. Tree density of 1500-2000 trees per ha should be maintained.
- XVI. Regular monitoring of the air quality should be carried out in and around the power plant and records be maintained. Periodic six monthly report should be submitted to this Ministry.
- XVII. For controlling fugitive dust, regular sprinkling of water in vulnerable areas of the plant should be ensured.
- XVIII. The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters 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.mtc.in>.
- XIX. A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.
- XX. Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards should be submitted to this Ministry/ Regional Office/CPCB/SPCB.
- XXI. Regional Office of the Ministry of Environment & Forests located at Bangalore will monitor the implementation of the stipulated conditions. Complete set of Environmental Impact Assessment Report and Management Plan should be forwarded to the Regional Office for their use during monitoring.
- XXII. Separate funds should be allocated for implementation of environmental protection measures alongwith item-wise break-up. These cost should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.
- XXIII. Full cooperation should be extended to the Scientists/Officers from the Ministry/Regional Office of the Ministry at Bangalore/the

CPCB/the SPCB who would be monitoring the compliance of environmental status.

4. Amendment in the environmental clearance accorded for the existing 2x130 MW Thermal Power Plant vide letter no. J-11012/30/94-IA.II(I) dated 2<sup>nd</sup> Aug,1996 for change in fuel configuration for imported coal and corex gas from 20:80 to 80:20 ratio is allowed with the maximum consumption of 532400 TPA of imported coal subject to implementation of all the conditions stipulated vide letter no. J-11012/30/94-IA.II(I) dated 2<sup>nd</sup> Aug,1996.
5. The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry.
6. The environmental clearance accorded shall be valid for a period of 5 years for construction/operation of the power plant. In case , if the project authorities fails to do so within this stipulated period, this environmental clearance shall stand lapsed automatically.
7. In case of any deviation or alteration in the project proposed 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, Hazardous Wastes (Management and Handling) Rules,1989 and as amended in May,2003, the Public Liability Insurance Act,1991, the Environment Impact assessment Notification of January,1994 and its amendments.

  
**(A.DURAISAMY)**  
 DIRECTOR

Copy to:

1. Secretary,Ministry of Power,Sbram Shakti Bhawan,Rafi Marg,New Delhi-110001.

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2. Secretary(Environment & Forests),Government of Karnataka, Bangalore.
3. Chairman, Central Electricity Authority, Sewa Bhawan,K.K.Puram,New Delhi-110066.
4. Chairman, Karnataka Pollution Control Board, 6,7,8,9 Floor(Public utility Building), Subhas Chandra Bose Building,M.G. road,Bangalore-560001 with a request to display a copy of the clearance letter at the Regional Office,District Industries Centre and Collector's office for 30 days.
5. Chairman, Central Pollution Control Board, Parivesh Bhawan,CBD-cum-Office Complex,East Arjun Nagar,Delhi-110032.
6. Chief Coservator of Forests, Ministry of Environment & Forests, Regional Office(SZ),Kendriya Sadan,4<sup>th</sup> Floor E&F Wings, 17<sup>th</sup> Main Road, I-Block, Koramangla, Bangalore-560034.
7. Joint Seretary(CC-I),MOEF.
8. Guard file.
9. Monitoring file.

  
**(A.DURAISAMY)**  
**DIRECTOR**





**No. J-13011/10/2001-IA.II (T) (Part)**  
**Government of India**  
**Ministry of Environment, Forests and Climate Change**

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

Dated: 03.05.2017

To

The Vice President  
M/s JSW Energy Ltd.  
Post Box No.9, Torangallu,  
Tehsil Sandur,  
Dist. Bellary - 583123, Karnataka.

Phone: 08395-252124/282200; Fax: 08395-242508. Email: surya.prakash@jsw.in.

**Sub: 2x300 MW Coal Based Thermal Power Plant, Village Toranagallu, Tehsil, Sandur, District Bellary, Karnataka by M/s JSW Energy (Vijaynagar) Limited - reg. amendment in Environmental Clearance.**

Sir,

This has reference to your online application dated 12.9.2016 and additional information submitted by vide your letters dated 4.1.2017 and 8.3.2017 on the above mentioned subject.

2. It has been noted that Environmental Clearance has been accorded for establishing 2x250 MW based Thermal Power Plant with 100% domestic coal (2.8 MTPA) at Toranagallu, Bellary, Karnataka to M/s Jindal Thermal Power Company Limited vide Ministry's letter dated 20.8.2004. Subsequently, amendment of the said EC has been accorded to M/s JSW (Energy) Vijayanagar Ltd for augmentation of 2x250 MW to 2x300 MW with imported coal (1.78 MTPA). It has also been noted that M/s JSW Energy (Vijaynagar) Ltd. has been amalgamated with M/s JSW Energy Ltd. vide High Court of Bombay Order dated 10.10.2008.

3. The matter was placed before the Re-constituted EAC (Thermal Power) in its 2<sup>nd</sup> Meeting held on 20.1.2017. In acceptance of the recommendation of the Re-constituted EAC and in view of the information/clarification furnished by you with respect to implementation of the above mentioned power project, *Ministry hereby amends the Environmental Clearance dated 20.8.2004 and its amendments dated 12.10.2007 for change in coal source from 100% imported coal to blending of domestic coal (50%) based on e-auction, spot e-auction and special forward e-auction and imported coal (50%) subject to following additional conditions..*

- i. Total coal quantity shall not exceed 2.5 MTPA. Total ash and Sulphur content after blending shall be less than 25% and 0.6% respectively. 1.25 MTPA of domestic Coal shall be sourced through e-auction from Western Coal Fields Limited in Nagpur and Chandrapur areas (Coalfields: Ballarpur, Wani, Wani North, Majri, Chandrapur, Nagpur and Umrer).
- ii. Mode of transportation of coal shall be through rail only. Coal shall be transported from railway sidings viz. WCL Umrer CHP siding or Babupet, CRC, HLC (WCL Chandrapur) or Ballarsha (WCL Ballarpur) or any other railway siding designated by WCL which are in the range of 700-850 km distance from the power plant.

- iii. As proposed, top surface of the Coal Wagons shall be completely covered with tarpaulin sheet/cloth so that coal will not get exposed to atmosphere and becomes secondary emissions. This will avoid fugitive dust emissions during the transport. Water sprinkling shall be done on the top surface of coal at loading point before covering with tarpaulin sheet. Due safety procedures shall be followed so that the covered sheet doesn't open up and flyaway during transport which will endanger safety of nearby people, agricultural fields, etc. Water sprinkling measures as proposed at loading and unloading point shall be continued.
  - iv. Incremental flyash shall be utilized for cement manufacturing.
  - v. Details of domestic coal linkage with allotted coal mine in the e-auction along with firm mode of transportation shall be submitted to Ministry within a month after allocation or before lifting the coal whichever is earlier.
  - vi. The Ministry's Notification S.O. 3305(E) dated 7.12.2015 and amendment on time to time, shall be achieved by 7.12.2017.
  - vii. MoEF&CC Notification G.S.R 02(E) dated 2.1.2014 regarding use of raw or blended or beneficiated or washed coal with ash content not exceeding 34% shall be complied with, as applicable.
  - viii. Any variance in coal characteristics/source/mode of transport, it shall be brought along with environment and traffic impact assessment study to the Ministry for assessing the adequacy of the conditions already stipulated or to incorporate any additional condition as may be necessary in the interest of environment protection.
4. All other conditions stipulated in vide Ministry's EC letters dated 20.8.2004 and 10.10.2007 shall remain the same, as applicable.

This issues with the approval of the Competent Authority.

Yours faithfully,



(Dr. S. Kerketta)  
Director

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 Principal Chief Conservator of Forests (C), Ministry of Environment, Forests and Climate Change, Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bangalore - 560034.
5. The Secretary to Government (Environment and Ecology), Department of Forest, Environment & Ecology, Room No. 708, Gate 2, Multi Storied Building, Dr. Ambedkar Veedhi, Bangalore - 560 001.
6. The Chairman, Karnataka State Pollution Control Board, Parisara Bhavan, #49, 4th & 5th Floor, Church Street, Bangalore-560001 .
7. The Deputy Commissioner, Bellary District, Govt. of Karnataka, Bellary-583101.
8. Guard file/Monitoring file.
9. Website of MoEF&CC.



(Dr. S. Kerketta)  
Director