



ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ  
KARNATAKA STATE POLLUTION CONTROL BOARD

6, 7, 8 ಮತ್ತು 9ನೇ ಅಂತಸ್ತು, ಜನಸಾಮಾನ್ಯವಿಳಾಸ ಕಟ್ಟಡ,  
ಮಹಾತ್ಮಗಾಂಧಿ ರಸ್ತೆ, ಬೆಂಗಳೂರು 560 001  
ಬೆಂಗಳೂರು, ಭಾರತ.

6, 7, 8 and 9th Floor, Public Utility Building,  
Mahatma Gandhi Road, BANGALORE-560 001  
Karnataka, INDIA.

BY REGD. POST WITH ACK. DUE //

NO:KSPCB/BLY/RJ JPC/DEO-6/96/ 879

Dt - 6.3-96

To

The Chief Executive Officer,  
Jindal Tractebel Power Co. Ltd.,  
Indis Executive Centre,  
20, Palace Road,  
BANGALORE - 560 052.

Sir,

Sub : Consent for Establishment and  
Clearance from Water and Air  
Pollution Control point of view  
for setting up of a new Industry  
at Tanangallu, Bellary District.

Ref : Your letter No. JTPCL/KSPCB/504,  
Dt : 22.1.96.

With reference to the above, it is to be informed  
that this Board has cleared the project from the Water and  
Air Pollution control point of view for setting up of a  
new industry for generating power capacity 2X130 MW using  
colex gas at 80% coal at 20% at above premises following  
conditions stated below are complied with.

1. The project is to be cleared from all other  
angle: of environment by the Committee constituted by the  
State Government.
2. The industry shall not undertake expansion  
diversification/modernisation, change of location of site  
etc., without the prior clearance from this Board.
3. The industry shall take afforestation measures  
in the factory area, so that green belt around the factory  
premises is maintained.

I. WATER POLLUTION CONTROL :

1. The effluent treatment flow sheet submitted  
by the industry is generally agreeable and the industry  
may go ahead with the implementation of the same. However,  
the industry shall comply alongwith the observations and  
suggestions as indicated in Annexure-I.

2. All the treatment units shall be totally  
impervious within solid impervious material on both sides  
and bottom and industry should submit detailed plans,  
structures indicating the premises.

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*Handwritten number 11/27*

3. The industry shall submit to the Board a detailed treatment proposals of trade/domestic/combined effluents along with the designs to treat the effluent to the standards laid down in Annexure-II along with the proposed time schedule for implementation of effluent treatment plant in the form of PERT chart, so as to complete the entire work at least 30 days before the commissioning of the plant for trial/regular production.

4. The industry shall use the entire treated effluent on land for irrigation or on land owned by the industry. The effluent applied on land shall conform to the standards stipulated in Annexure-II.

5. The industry shall treat the domestic waste water from the factory in septic tank with soak pits. No overflow from the soak pit allowed. The septic tank and soak pit shall be designed as per IS 2470 Part-I and Part-II.

## II. AIR POLLUTION CONTROL :

1. a) The discharge of emission for the premises of the applicant shall pass through the stacks/chimneys wherefrom the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made thereunder.

b) If the industry uses 100% coal for power generation, it shall provide Desulphurisation unit. For which a proposal shall be furnished within 30 days.

2. The daily/hourly rate of emissions discharged and the tolerance limits of the constituents forming the emissions in each of the stacks/chimneys shall not exceed the limits laid down in Annexure-III.

3. a) The industry shall take immediate action to install adequate equipments for the control of constituents in the emissions so as to conform to the tolerance limits as per Condition No.2 within the date noted against them indicated in Annexure-II.

4. a) The chimney heights shall be provided as per guidelines for stack heights given in Annexure-III. The proposals for which, shall be submitted to the Board within 30 days from the receipt of this consent for establishment and shall be implemented before commissioning plant.

b) The industry shall provide port holes for sampling the emissions and access platforms for carrying out stack sampling and provide electrical outlet points and other arrangements for all stacks/chimneys and other sources of emissions so as to collect samples of emissions by the Board or the applicant at any time in accordance with the provisions of the Act and Rules made therein. The details of the location of sampling port holes, the platforms, the electrical outlet point etc., are detailed in Annexure-IV.

5. The industry shall at his own cost get the samples of emissions collected and get them analysed in any Laboratory every ~~month~~ for the parameters indicated in Condition No. 2. from the sampling port holes provided as per Condition No. 4 and shall submit in duplicate, analysis results to the Board within seven days from the date of collection of samples.

6. The industry shall not change or alter either the quality or quantity of rate of emission or install/replace or alter the air pollution control equipments, change in raw material or manufacturing process resulting in change in quality and/or quantity of mra emissions, shall be intimated to Board.

7. a) The industry shall provide and maintain at its own cost three Ambient Air Quality Monitoring stations for monitoring suspended particulate matter, Sulphur Dioxide, Nitrogen Oxide, Hydro Carbons, Carbon monoxide and monitor the same once in a month. The data collected shall be maintained in Register and a monthly extract shall be sent to the Board. Ambient Air Quality Monitoring shall be in accordance with Notification no. S.O. 354 (2) L.

b) The ambient air quality monitoring station shall be located in consultation with this Board. The period of 8 hours monitoring shall be such as to cover the cycle of 24 hours atleast once in a week.

8. The industry shall provide and maintain at its own cost a meteorological station to collect the data on wind velocity, direction, temperature, humidity, rainfall etc., and daily reading shall be recorded and the extract be sent to the Board once in a month.

9. The industry shall submit process flow sheet and particulars of proposed control equipments, monitoring equipments, and time schedule for the installation of the same so as to reach the Board within 30 days from the date of grant of this consent for establishment.

### III. SOLID WASTE DISPOSAL :-

1. The factory shall dispose off all solid waste generated from the process and from the effluent treatment plant in a scientific manner without causing underground and surface water pollution directly or indirectly. The solid waste shall be disposed off without causing eye sores to the Public. The factory premises and the surroundings shall be kept clean. The mode of disposal of solid waste and the area selected for the same shall be got approved by the Board duly furnishing the relevant information within 30 days from the receipt of this consent for establishment.

2. Additional under Annexure-V.

### IV. WATER CESS :

1. It is binding on the factory as per Sec.3(3) and 3(4) of Water (Prevention and Control of Pollution) Cess Act, 1977, to provide for :

n) Water meter at the entrance of the water supply connection within the premises of the consumer or at any other place to be approved by the Assessing Authority so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act, provided that the place where it is affixed shall be in no case be at a point before which water has been tapped by the consumer for utilisation for any purposes whatsoever.

b) Separate meters with necessary pipeline for assessing the quantity of water used for each of the four purposes mentioned below before the factory is commissioned.

i) Industrial cooling, spraying in mine pits or boiler feed.

ii) Domestic purpose.

iii) Processing whereby water gets polluted and the pollutants are easily bio-degradable.

iv) Processing whereby water gets polluted and the pollutants are not easily bio-degradable and are toxic.

Every industry after fixing the water meters, intimate the initial meter reading to the Assessing Authority and after the industry is commissioned even for trial production, file cess returns in the Form-I.

#### V. GENERAL :

1. The industry shall provide separate D.G. Set of sufficient capacity to run and operate the essential units of effluent treatment plant/control equipments, in event of brake down of power supply from Electricity Board. The industry shall provide necessary connection from D.G. Set to the effluent treatment plant power line. The action taken by the industry in this regard shall be informed to the Board within 30 days from the receipt of this consent for establishment.

2. The industry shall not be commissioned for trial or regular production unless the effluent treatment plant as approved by the Board is completed in all respects and necessary air pollution control equipments are installed to the satisfaction of the Board. The industry shall ensure that the treatment plant and control equipments are completed and commissioned simultaneously alongwith construction of the factory and erection of machineries.

3. The industry shall furnish detailed programme of work in the form of pert chart for implementation of water and air pollution control works. Physical progress on the works shall be informed to the Board every month in a proforma Annexure.

4. During the operation of the plant, if either the emissions from the stacks, chimneys or the liquid effluents from the industry or solid waste disposal do not conform to the standards prescribed by the Board, the industry shall shut down the plant for effecting modification to the treatment works/control equipments so as to render the effluent and emissions to the prescribed standards.

5. Exact date of commissioning of the plant shall be informed to this Board 45 days in advance so as to make necessary inspection of the plant and the pollution control measures provided by the industry.

Please note that this is only a consent for establishment issued to you to proceed with the formalities to establish the industry and does not give any right to proceed with trial/regular production. For this purposes, a separate consent of the Board for discharge of liquid effluent and the atmospheric emissions shall have to be obtained remitting prescribed consent fee, separately, for air emissions and waste water discharged as per Annexure enclosed. The application for consent has to be made 45 days in advance to your commissioning for trial production of the plant. Issue of consent will be considered only after completion of effluent treatment plant both for domestic and industrial effluent and installing air pollution control equipments as required.

The receipt of this letter may please be acknowledged.

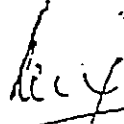
Yours faithfully,

  
MEMBER SECRETARY.

b.  
c/3

A N N E X U R E - I

1. The industry shall strictly adhere to the conditions stipulated in Government of India, Ministry of Ecology, Environment and Forest, Environment Clearance vide Memorandum No. J-11012/3/94-IA.II(1), Dt: 6.3.95.
2. The detailed design of effluent treatment plant scheme shall be furnished to the Board before execution and formal approval shall be obtained.
3. The effluent generated after treatment shall be reused and excess if any shall be used for irrigation/gardening.
4. Desulphurisation unit should be installed if ~~they~~<sup>you</sup> are using coal or fuel

  
MEMBER SECRETARY.

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6/1

TOLERANCE LIMIT FOR INLAND SURFACE WATER

Sl. No.	Parameter	Tolerance limit for Inland surface water
1	2	3
1.	Colour and odour	See note 1 below.
2.	Suspended solids mg/l. Max.,	<u>100</u>
3.	Particle size of suspended Solids	Shall pass 850 micron IS Sieve.
4.	PH Value	<u>5.5 to 9.0</u>
5.	Temperature	shall not exceed 5°C above the receiving water temperature.
6.	Oil & Grease mg/l. Max.,	<u>10</u>
7.	Total residual chlorine mg/l. Max.	1.0
8.	Ammoniacal nitrogen (as N), mg/l. Max.,	50
9.	Total kjeldahl nitrogen (as N) mg/l. Max.	100
10.	Free ammonia (as NH <sub>3</sub> ), mg/l. Max.	5.0
11.	Biochemical oxygen demand (5 days at 20°C) mg/l. Max.,	<u>30</u>
12.	Chemicals Oxygen demand mg/l. Max.,	<u>250</u>
13.	Arsenic (as As) mg/l. Max.,	0.2
14.	Mercury (as Hg), mg/l. Max.,	0.01,
15.	Lead (as Pb) mg/l. Max.,	0.1
16.	Cadmium (as Cd) mg/l. Max.,	2.0
17.	Hexavalent chromium (as Cr <sup>+6</sup> ) mg/l. Max.,	0.1
18.	...	---
19.	Copper (as Cu), mg/l. Max.,	3.0
20.	Zinc (as Zn), mg/l. Max.,	5.0
21.	Selenium (as Se) mg/l. Max.,	0.05
22.	Nickel (as Ni) max.,	3.0
23.	Cyanide (as CN) mg/l. Max.,	0.2
24.	Fluoride (as F) mg/l. Max.,	2.0
25.	Dissolved phosphates (as P) mg/l. Max.,	5.0
26.	Sulphide (as S) mg/l. Max.,	2.0
27.	Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH) mg/l. Max.,	1.0
28.	Manganese (as Mn), mg/l.	2.0
29.	Iron (as Fe) mg/l.	3.0
30.	Vanadium (as V), mg/l.	0.2
31.	Nitrate Nitrogen, mg/l.,	1.0

NOTE : All efforts should be made to remove colour and unpleasant odour as far as practicable.

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Chimney Attached	Minimum Chimney height to be provided above ground level	Rate of emission NM <sup>3</sup> /day	Constituents to be controlled in the emission	Tolerance limits mg/NM <sup>3</sup>	Air Pollution Control equipment to be installed, in addition to chimney height as per col. (3)	Date on which Air Pollution Control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.	REMARKS
10	3	4	5	6	7	8	9

Boiler 115 mt. 150 Particulate Chimney height, Before  
 130 M.W cap. as per Col. 5 & commissioning.  
 power plant. SO<sub>2</sub> Electrostatics  
 \* precipitator. (ESD)

Boiler 115 mt. -do- -do- -do-  
 130 MW cap. \*  
 power plant

1) The emission rate of all chimneys shall be reported within 30 days.  
 2) Details of O.G. sets -if any like KVA rating fuel consumption in kg/hr. chimney height -above roof level and dia to be furnished within 30 days. O.G. sets and other noise generating machinery to be provided with Silencers / Mufflers to reduce the noise pollution.  
 3) There shall be no smell or odour nuisance from the industry.  
 4) There shall be no other sources of Air Pollution.

noise level shall not exceed 75 db(A) leq. shall not exceed 6 A.M to 9 P.M.  
 70 db(A) leq. shall not exceed 6.A.M to 9 P.M.

\* And: shall provide desulfurisation unit for control of SO<sub>2</sub> if ind. use 100% coal as fuel

*[Signature]*

MEMBER SECRETARY,  
 Karnataka State Pollution Control Board  
 Bangalore  
 6/2



## ANNEXURE

### LOCATION OF PORTHOLES FOR STACK SAMPLING & PLATFORMS, ELECTRICAL CONNECTIONS:

1) Location of Portholes and approach Platform :

Portholes shall be provided for all Chimneys, Stacks and other sources of emission. These shall serve as the Sampling Points. The Sampling point should be located at a distance equal to atleast eight times the stack or duct diameters downstream and two diameters upstream from source of flow disturbance such as a Bend, Expansion, Construction Vaive, Fitting or Visible Flame For rectangular stacks, the equivalent diameter can be calculated from the following equation :

$$\text{Equivalent Diameter} = \frac{2 (\text{Length} \times \text{Width})}{(\text{Length} + \text{Width})}$$

2) The diameter of the Sampling Port should not be less than 3". Arrangements should be made so that, the Porthole is closed firmly during the period when it is not used for sampling.

3) An easily accessible platform to accommodate 3 to 4 persons to conveniently monitor the stack emission from the Portholes shall be provided. Arrangements for an Electric Outlet Point of 230V 15A with suitable Switch Control and 3 Pin Point shall be provided at the Porthole location.

