



F. No. J-11011/350/2010- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
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Dated 21st September, 2011

To,

✓
Shri S.S. Rathi, Chief Operating Officer
Shri Shubhendu Amitabh, Sr. President (Corporate Affairs)
M/s Hi-Tech Carbon, India (A Unit of Aditya Birla NUVO Limited)
K-16, Phase-II, SIPCOT Industrial Complex, Gummidipoondi,
District Thiruvallur-601 201, Tamil Nadu.

E-mail: hitechr@adityabirla.com; s.rathi@adityabirla.com; rohit.raina@adityabirla.com;
Fax No.: 044- 2789116.

Subject: Expansion of Carbon Black Plant (12,500 MTPM to 18,750 MTPM) alongwith Power Plant (33.7 MW to 47 MW) at K-16, Phase-II, SIPCOT Village Pappankuppam, Gummidipoondi, District Thiruvallur, Tamil Nadu by M/s High-Tech Carbon India (A Unit of Aditya Birla NUVO Limited) – Environmental Clearance reg.

Ref. : Your letter no. HTC/PRES/089 dated 28th December, 2010, which received in the Ministry on 19th January, 2011.

Sir,

Kindly refer your letter dated 28th December, 2010, which received in the Ministry on 19th January, 2011 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report and subsequent clarification/additional information submitted vide letter dated 20th July, 2011 regarding above mentioned project.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that the proposal is for the expansion of Carbon Black Plant (12,500 MTPA to 18,750 MTPA) alongwith Power Plant (33.7 MW to 47 MW) at K-16, Phase-II, SIPCOT Village Pappankuppam, Gummidipoondi, District Thiruvallur, Tamil Nadu. No additional storage capacity is proposed. Total plot area is 22.67 ha and expansion will be carried out in the existing premises. Inter-state boundary of A.P. State is at 7.3 km. Reserve forests near Village Kedamallur (8.6 km, NW) and Village Manali (6.7 km SW) are located. Pulicat wildlife sanctuary is located at 9.0 Km from project site. Total cost of the project is Rs. 173.84 Crores.

3.0 Vent scrubber in the reactor area, bag filter in the product separation area, process bag filter in the pelletising area, purge gas filter in the product drying area, dryer combustor in the dryer area, packing exhaust filter in the packing area and electrostatic precipitator (ESP) to the boiler will be provided to control air emissions. Flue gas desulphurization system (FGD) will be installed to control SO₂ emissions. Total fresh water requirement from SIPCOT Water supply will be increased from 2,010 m³/day to 2,500 m³/day after expansion. ✓

Total wastewater generation will be 383.00 m³/day. Industrial effluent will be segregated into oil bearing effluent stream, high TDS effluent stream and low TDS effluent stream and treated in effluent treatment plant (ETP). Sewage will be treated in sewage treatment plant (STP). Treated effluent will be recycled/reused within the factory premises. No effluent will be discharged outside the premises and 'Zero' discharge concept will be adopted. Fine carbon particles generated as solid waste will be sold to industries for manufacturing low grade rubber goods. Multiple effect evaporator (MEE) sludge will be sent to the treatment storage disposal facility for hazardous waste (TSDF). Oily waste from oil removal tank will be mixed along with carbon black feed stock and burnt in the furnace.

4.0 Public hearing was exempted as per Section (iii), Stage (3), Para (i)(b) of EIA Notification, 2006.

5.0 All the carbon black manufacturing units are covered under petrochemical based processing units and listed at S.N. 5(e) under Category 'A' due to location outside notified industrial area and appraised at the central level.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 15th, 22nd and 25th meetings held during 22nd-23rd October, 2010, 29th-30th April, 2011 and 28th-30th July, 2011 respectively. The Committee recommended the proposal for environmental clearance.

7.0 Based on the information submitted by the project proponent, the Ministry of Environment and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14th September 2006, subject to the compliance of the following Specific and General Conditions:

A. SPECIFIC CONDITIONS:

- i) Permission and recommendations of the State Forest Department regarding impact of the proposed plant on the reserve forests located near to village Kedamallur (8.6 km, NW) and village Manali (6.7 km, SW) shall be obtained and recommendations shall be implemented satisfactorily.
- ii) Environmental clearance is subject to their obtaining prior clearance from the Standing Committee of the National Board for Wildlife regarding Pulicat Wildlife (Bird) Sanctuary. Grant of environmental clearance does not necessarily implies that wildlife clearance shall be granted to the project and that their proposals for wildlife clearance will be considered by the respective authorities on their merits and decision taken. The investment made in the project, if any, based on environmental clearance so granted, in anticipation of the clearance from wildlife angle shall be entirely at the cost and risk of the project proponent and Ministry of Environment & Forests shall not be responsible in this regard in any manner" and all the recommendations shall be implemented in a time bound manner.
- iii) As proposed, vent scrubber in the reactor area, main bag filter in the product separation area, process bag filter in the pelletising area, purge gas filter in the product drying area, dryer combustor in the dryer area and packing exhaust filter in the packing area shall be provided to control air emissions. Electrostatic precipitator (ESP) should be provided to the boilers to control SO₂ emissions.
- iv) The gaseous emissions (SO₂, NO_x, CO and HC) and particulate matter from existing and proposed boiler, dryer, purge gas filter, packing exhaust filter units ✓

shall conform to the norms prescribed by the Central Pollution Control Board (CPCB)/ Tamil Nadu Pollution Control Board (TNPCB) from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.

- v) Continuous on-line stack monitoring of particulate matter, SO₂ and NO_x with recording facilities as well as interlocking facilities shall be ensured and proper calibration shall be done time to time. Carbon content in the particulate matter shall also be measured.
- vi) 'Sulphur' content in the feed stock shall not exceed 3% as per the CPCB norms. Further efforts shall be made to procure feed stock with low Sulphur content as possible.
- vii) Flue gas desulphurization system (FGD) shall be installed to control SO₂ emissions.
- viii) Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th September, 2009.
- ix) The levels of PM₁₀, SO₂, NO_x, CO and HC (Non-methane) shall be monitored in the ambient air. Data of stack monitoring and ambient air shall be displayed on web as well as outside the premises at prominent place for public viewing. The company shall upload the results of monitored data on its 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 TNPCB.
- x) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits stipulated by the TNPCB.
- xi) Poly-Aromatic Hydrocarbon (PAH) shall be monitored in fugitive dust emission area particularly in Packaging Plant. Data shall be properly monitored, recorded, and submitted to the Ministry's Regional Office at Bangalore.
- xii) For further control of fugitive emissions, following steps shall be followed :
 - a. Closed handling system shall be provided for chemicals.
 - b. Reflux condenser shall be provided over reactor. *- deleted*
 - c. System of leak detection and repair of pump/pipeline based on preventive maintenance.
 - d. The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water.
 - e. Cathodic protection shall be provided to the underground solvent storage tanks. ✓ *- deleted*

- xiii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- xiv) Total fresh water requirement from SIPCOT water supply shall not exceed 2,500 m³/day after expansion. Air cooled condenser shall be provided to reduce fresh water consumption even for expansion. Steps shall be identified to conserve water and measures adopted for minimizing the same.
- xv) As proposed, industrial effluent shall be segregated into oil bearing effluent stream, high TDS effluent stream and low TDS effluent stream. Oil bearing effluent stream shall be treated in effluent treatment plant (ETP) for removal/separation of oil. High TDS effluent stream shall be treated in ETP and rejects of reverse osmosis shall be concentrated in the multiple effect evaporator (MEE) and permeate shall be reused/recycled for cooling tower make up water. Low TDS effluent stream from floor washing shall be filtered. Sewage shall be treated in sewage treatment plant (STP). Treated effluent shall be recycled/reused within the factory premises. No effluent shall be discharged outside the factory premises and 'Zero' discharge concept shall be adopted. Treated effluent quality shall be monitored regularly and conform to the norms prescribed by the CPCB/TNPCB from time to time.
- xvi) Process effluent/any wastewater shall not be allowed to mix with the storm water. Storm water drain shall be passed through guard pond.
- xvii) All the solid/hazardous waste including ETP sludge and waste oil shall properly stored at the site as per CPCB guideline. Fine carbon particles generated as solid waste shall be sold to industries for manufacturing low grade rubber goods. MEE sludge shall be sent to TSDF. Oily waste from oil removal tank shall be mixed along with carbon black feed stock and burnt in the furnace.
- xviii) Proper and valid authorization and membership shall be obtained from the concerned authorities for the disposal of solid/hazardous waste and a copy submitted to the Ministry's Regional Office at Bangalore.
- xix) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xx) Proper house keeping shall be maintained and no spillage of Carbon Black shall be permitted. Preventive measures shall be taken to avoid and prevent any accidental release of Carbon Black to the environment.
- xxi) The company shall undertake following waste minimization measures :-
a. Metering and control of quantities of active ingredients to minimize waste.
b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
c. Use of automated filling to minimize spillage.
d. Use of Close Feed system into batch reactors.
e. Venting equipment through vapour recovery system.
f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- xxii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the OISD 117 norms
- xxiii) All the workers involved in packing of Carbon Black in Packaging Plant area shall use (PPE) and masks to avoid direct exposure to Carbon Black dust.
- xxiv) All the workers shall be regularly monitored for occupational health for relevant parameters pertaining to industry specific and records maintained.
- xxv) Proper energy conservation measures shall be adopted and a report submitted to the Ministry and its Regional Office at Bangalore.
- xxvi) Green belt shall be developed in 30 acres out of total land 62 acres. Selection of plant species shall be as per the CPCB guidelines.
- xxvii) All the recommendations/standards mentioned in the CPCB guidelines for the Carbon Black manufacturers shall be implemented.
- xxviii) Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.

B. GENERAL CONDITIONS:

- i. The project authorities shall strictly adhere to the stipulations made by the Tamil Nadu Pollution Control Board.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- iii. The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- iv. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- v. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water. ✓

- vi. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- vii. The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.
- viii. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.
- ix. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- x. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xi. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- xii. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- xiii. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and TNPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xiv. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted 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 MoEF by e-mail.
- xv. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <http://envfor.nic.in>. This shall be advertised within seven days from the

date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

- xvi. The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

8.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

9.0 The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.

10.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986 Hazardous Wastes (Management and Handling) Rules, 1989/2003/ 2008 and the Public Liability Insurance Act, 1991 alongwith their amendments and rules.



(Dr. P. B. Rastogi)
Director

Copy to:

1. The Principal Secretary, Department of Environment, Ground Floor, Panagal Buildings 1, Jeenis Road , Saidapet, Chennai - 600 015.
2. The Chief Conservator of Forests, Regional Office (Southern Zone, Bangalore) Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore-560034.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Tamil Nadu Pollution Control Board, Corporate Office, 76, Anna Salai, Guindy, Chennai - 600 032.
5. Adviser, IA II(I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Guard File/Monitoring File/Record File.



(Dr. P. B. Rastogi)
Director