

F. No. J-11011/408/2009-IA-II(I)
Government of India
Ministry of Environment & Forests
(IA Division)

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CGO Complex, Lodhi Road
New Delhi -- 110 003

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Dated : 2nd September, 2009

To

M/s HPCL's Visakh Refinery,
Petroleum House (PH-5)
17, Jamshedji Tata Road
P.O.Box No.- 11041
Mumbai (M.H.)- 400020

svsahni@hpcl.co.in

Sub: Expansion of clean fuels project 7.5 to 10.0 MMTPA and include EURO-IV diesel Production at 17, Jamshedji Tata Road, Mumbai by M/s HPCL's Visakh Refinery - Environmental Clearance reg.

Sir,

This has reference to your letter no. CEE/09/AJ/DHTVR/086 dated 11th June, 2009 alongwith Form-1, Executive summary of the project, EIA/EMP, layout plan and rapid Risk Analysis report seeking environment clearance under EIA Notification 2006 on the above-mentioned project.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that M/s HPCL's Visakh Refinery has proposed for expansion of Clean Fuels project from 7.5 to 10.0 MMTPA by inclusion of EURO-IV diesel production and residue up gradation facilities at Visakh Refinery in Andhra Pradesh. Environmental clearance was accorded by the Ministry to HPCL, Visakh Refinery, vide letter no. J-11013/55/2003-IA II (I), dated February 03, 2004 for Clean Fuels Project and expansion from 7.5 to 10.0 MMTPA. The project envisaged putting treatment facilities to meet future specifications of Motor Spirit (MS) and High Speed Diesel (HSD) in a phased manner. The DHT is planned to be installed now in order to meet EURO-III/IV specifications of HSD as per the Auto Fuel Policy of the Government of India effective April 2010. It is also proposed to install residue up-gradation facilities along with the Diesel treatment facilities while maintaining the crude processing capacity at the earlier approved 10 MMTPA level. The total land area of the project will be 515 acres. The total cost of the project will be Rs. 10611.87 Crores.

The project involves installation of following facilities:

- Euro-IV HSD Production facilities, viz. Diesel Hydro-Treater of 2.2 MMTPA capacity instead of 1.5 MMTPA
- Relocation of Product terminal and distribution facilities adjacent to existing premises.

3.0 It is noted that the total SO₂ and NO_x emission will be maintained within existing limits. Refinery will be using Fuel Gas, generated in the process units as well as low sulphur internal

fuel oil (sulphur content within 0.5% wt) in the process heaters and boiler. Process design will be selected to minimise the emissions. The emergency vent gases will be collected in a closed vent alongwith flare system and will be burnt at high elevation to ensure safe combustion gases and their dispersion. It was noted that Municipal supply water will be the source of main reservoir of capacity 250000 m³. The total raw water requirement is estimated as 674 m³/hr. The cooling water requirement of 3000m³/hr will be met from sea water canal. Estimated waste water generation is 155 m³/hr and will be treated in ETP of 200 m³/hr capacity and existing refinery units will be segregated and after treatment will be recycled as cooling water make up. The solid waste after suitable treatment will be sent to scientifically designed landfill system. The Company is in the process of finalizing the proposal to sell the solid waste generated from the proposed project and existing refinery units to authorized CPCB vendors as an option for the disposal of the solid waste from the Complex.

4.0 All the petroleum refinery activities are listed at 4(a) under 'A' category in the Schedule of EIA Notification, 2006 and hence considered and appraised at central level in 1st meeting of the Expert Appraisal Committee (Industry - 2) held during 24th-25th July, 2009. The public hearing was exempted as per para 7(ii) of EIA Notification, 2006.

5.0 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. M/s HPCL shall comply with the stipulations made in the environmental clearance accorded vide Ministry's vide letter No. J-11013/55/2003-IA II (I), dated February 03, 2004 for Clean Fuels Project and expansion from 7.5 to 10.0 MMTPA.
- ii. M/s HPCL shall comply with new standards/ norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March 2008.
- iii. The project authorities shall submit a feasible plan which will be followed to ensure that SO₂ emission from the refinery does not exceed the stipulated figure of 11.5 TPD at any time.
- iv. The company shall undertake measures for control of dust emission during construction and traffic congestion.
- v. Efforts shall be made to use gas as a fuel in the furnaces to the maximum extent possible.
- vi. The process emissions (SO₂, NO_x, HC, VOCs and Benzene) from various units shall conform to the standards prescribed by the AP State Pollution Control Board from time to time. At no time, the emission levels should go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved.

- vii. Ambient air quality monitoring stations, [SPM, SO₂, NO_x, H₂S, Mercaptan, NMHC and Benzene] should be set up in the Refinery complex in consultation with SPCB, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs Continuous on-line stack monitoring equipment should be installed for measurement of SO₂, NO_x, CO and CO₂. Low NO_x burners should be installed with online analyzers.
- viii. The proponent shall upload the status of compliance of the stipulated EC conditions, including 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 namely; SPM, RSPM, SO₂, NO_x (Ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at the convenient location near the main gate of the Company in the public domain.
- ix. Monitoring of fugitive emissions should be carried out as per the guidelines of CPCB by fugitive emission detectors and reports should be submitted to the Ministry's Regional Office at Bangalore. For control of fugitive emission all unsaturated hydrocarbon will be routed to the flare system and the flare system should be designed for smoke less burning.
- x. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage should also be provided at strategic locations. The company should use low sulphur fuel to minimize SO₂ emission. Sulphur recovery units should have efficiency of 99.5 %. Leak Detection and Repair programme should be implemented to control HC/VOC emissions. Work zone monitoring should be carried out near the storage tanks besides monitoring of HCs/VOCs in the work zone.
- xi. The waste water should be treated in the waste water treatment plant and the treated effluent should meet the prescribed standards. Efforts should be made to recycle the treated effluent to achieve zero discharge.
- xii. The project authorities must strictly comply with the rules and regulation with regard to handling and disposal of Hazardous Wastes (Management, Handling and Trans Boundary Movement) Rules, 1989/ 2003/ 2008 wherever applicable. Authorization from the State Pollution Control Board must be obtained for collections/ treatment/ storage/ disposal of hazardous wastes.
- xiii. The company should strictly follow all the recommendation mentioned in the charter on Corporate Responsibility for Environmental Protection (CREP) for the oil refineries.
- xiv. The Company should take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At place of ground flaring, the overhead flaring stack with knockout drums should be installed to minimize gaseous emissions during flaring.

- xv. To prevent fire and explosion at Oil and Gas facility, potential ignition sources should be kept to a minimum and adequate separation distance between potential ignition sources and flammable material should be in place.
- xvi. Onsite and offsite DMP shall be updated to cover the additional facilities and the updated plans shall be implemented.
- xvii. Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.
- xviii. Greenbelt should be developed to mitigate the effect of fugitive emission all around the plant in a minimum 33% plant area in consultation with DFO as per CPCB guidelines.
- xix. The Company should undertake measures for rain water harvesting to recharge the ground water and minimize fresh water consumption.
- xx. 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.

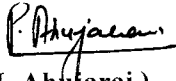
B. GENERAL CONDITIONS

- i. The project authorities must strictly adhere to the stipulations made by the concerned State Pollution Control Board (SPCB) and the State Government and any other statutory body.
- ii. No further expansion or modification in the project shall be carried without prior approval of the Ministry of Environment and Forests. In case of deviations or alternations in the project proposal from those submitted to the Ministry for clearance, a fresh reference shall be made to the Ministry.
- iii. At no time, the emissions shall go beyond the prescribed standards. In the event of failure of any pollution control system, the respective facilities should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved. Provision of adequate height of stack attached to DG sets & flare is to be done.
- iv. Waste water shall be properly collected and treated so as to conform to the standards prescribed under EP Act & Rules and mentioned in the Consents provided by the relevant SPCB.
- v. The overall noise levels in and around the premises shall be limited within the prescribed standards (75 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- vi. The project authorities must strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals etc. Necessary approvals from Chief Controller of Explosives

must be obtained before commission of the expansion project, if required. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.

- vii. The project authorities will provide adequate funds as non-recurring and recurring expenditure 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 provided should not be diverted for any other purposes.
- viii. The company shall develop rain water harvesting structures to harvest the run off water for recharge of ground water.
- ix. The stipulated conditions will be monitored by the concerned Regional Office of this Ministry/ Central Pollution Control Board/ State Pollution Control Board. A six monthly compliance report and the monitored data should be submitted to them regularly. It will also be displayed on the Website of the Company.
- x. 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 on hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
- xi. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations if any, were received while processing the proposal. The clearance letter shall also put up on the website of the Company by the proponent.
- xii. The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the 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://www.envfor.nic.in>. This should 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 should be forwarded to the concerned Regional office of this Ministry.
- xiii. The environmental 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 alongwith the status of compliance of EC conditions and shall also be sent to the respective regional Office of the MoEF by e-mail.
- xiv. A separate environment management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of a Senior Executive.

- xv. 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
- 6.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 7.0 The Ministry reserves the right to stipulate additional conditions if found necessary. The company will implement these conditions in a time bound manner.
- 8.0 Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, Second Floor, Trikot-I, Bhikaji Cama Place, New Delhi-110066, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.
- 9.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 1989/ 2003/ 2008 and Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 along with their amendments and rules.


(Dr. P L Ahujarai)
Director

Copy to:

1. The Secretary, Department of Environment and Forests, Govt. of A.P., Secretariat Hyderabad, A.P.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi – 110032.
3. The Chairman, Andra Pradesh Pollution Control Board, Paryavaran Bhavan, A-3 Industrial Estate, Sanathnagar, Hyderabad- 500018, A.P.
4. The Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office (SZ), Kendriya Sadan, IVth Floor, E&F wings 17th Main Road, Koramangala II Block, Bangalore-560034, Karnataka.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi-110003.
6. Guard file.
7. Record file
8. Monitoring file.


(Dr. P L Ahujarai)
Director