

F. No. J-11011/21/1994- 1A II (I)
 Government of India
 Ministry of Environment and Forests
 (I.A. Division)

Paryavaran Bhawan
 CGO Complex, Lodhi Road
 New Delhi - 110 003
 E-mail : plahujarai@yahoo.com
 Telefax: 011 - 2436 3973
 Dated: March 20, 2009

To.

The Managing Director
 M/s Bharat Oman Refineries Limited
 (A company promoted by BPCL and Oman Oil Company Limited)
 'A' Block, Office Complex, Gautam Nagar,
 Bhopal- 462023
 Madhya Pradesh

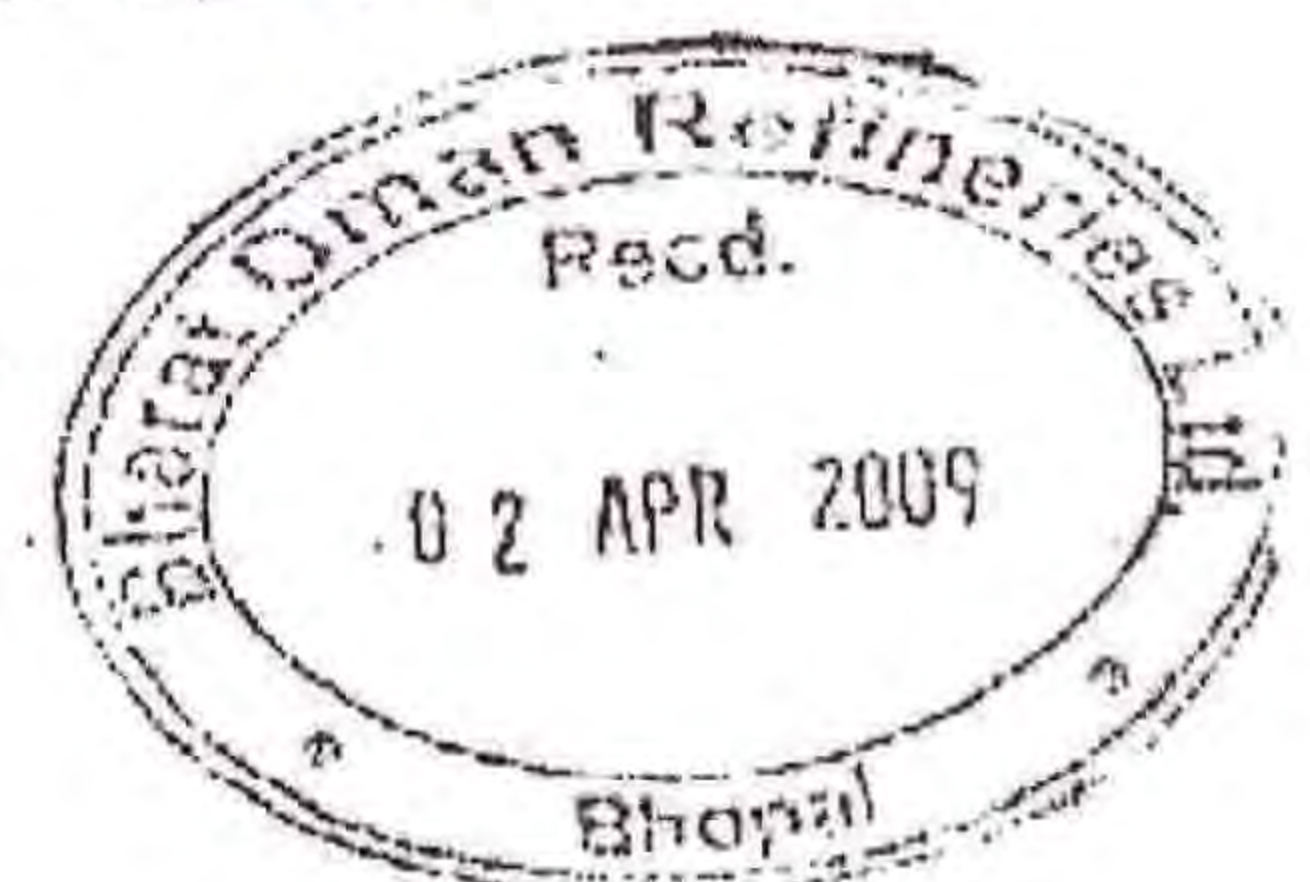
Sub: Bina Refinery project of M/s Bharat Oman Refineries Limited (BORL)- reg

Sir,

This has reference to your letter no. BORL:MD:09.O dated 24th December, 2008 requesting the Ministry for amendment in the Environmental Clearance accorded on 16th February, 1995 due to change in the design and configuration of the following to meet the Euro-IV specifications.

2.0 The proposal has been examined. It is noted that the project is under advanced stages of completion and is scheduled for commissioning in 2009. To meet the requirement of the EURO IV & EURO-V, M/s BORL propose to redesign the configuration of the project to meet the new Motor Spirit (MS) and High Speed Diesel (HSD) quality specifications. The crude processing capacity will remain same, i.e 6 MMTPA. Based on the design, the total SO₂ emission from the refinery will be about 29 TPD within the limit of 30-40 TPD as specified in the environmental clearance dated 16.02.1995. The refinery will use the process water internally and is designed for zero effluent discharge.

3.0 The details of the design capacities of the key process facilities include; 6.0 MTPA of Crude/ vacuum distillation; 1.95 MTPA of full conversion hydrocracker; 1.63 MTPA of diesel hydrotreater; 1.35 MTPA of delayed coaker, 0.07 MTPA of hydrogen unit; 1.0 MTPA of Naphtha hydrotreater; 0.54 MTPA of continuous catalytic re-gen reformer; 0.31 MTPA of isomerisation and 180 x 2 TPD of sulfur recovery unit. The products to be manufactured at refinery would be petroleum products such as 222 TMTPA of LPG; 24 TMTPA of Naphtha, 385 TMTPA of Euro-III equivalent Motor Spirit, 400 TMTPA of Euro -IV equivalent motor spirit; 550 TMTPA of Aviation turbine fuel; 487 TMTPA of Superior Kerosene Oil; 1610 TMTPA of Euro-III - equivalent HSD; 1181 TMTPA of Euro-IV-equivalent HSD; 109 TMTPA of Sulphur; 410 TMTPA Coke fuel to CPP and 405 TMTPA of Refinery fuel and loss. The total production capacity will be 6 MMTPA. It is also noted that the Euro-IV MS and HSD will have ultra Low Sulphur content of 10 ppm max. The total quantity of HSD can be made into superior Euro-IV (50 ppmw) by varying the operating conditions



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4.0 The proposal regarding modification in the design capacity was placed before the Expert Appraisal Committee (I) in its meeting 9-11th February, 2009. The Committee recommended to amend the environmental clearance subject to stipulation of specific conditions that M/s BORL 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.

5.0 In view of the above, environmental clearance granted vide Ministry's letter no. J-11011/21/94-IA.II(I) dated 16.2.1995 is amended subject to stipulation of following additional specific conditions.

- i. M/s. BORL 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.
- ii. M/s BORL shall comply with all the conditions stipulated vide Ministry's letter of even no. dated 16.2.1995.
- iii. The process emissions (SO₂, NO_x, HC, VOCs and Benzene) from various units shall conform to the standards prescribed by the Madhya Pradesh State Pollution Control Board from time to time. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.
- iv. Ambient air quality monitoring stations. [SPM, SO₂, NO_x, H₂S, mercaptan, NMHC and Benzene] shall 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 shall be installed for measurement of SO₂, NO_x, CO and O₂. Data should be displayed on the gate of the refinery and important public places through sign boards. The data should be displayed on the web site of the industry and e- mailed to the Regional office of the Ministry/CPCB/State Pollution Control Board.
- v. Monitoring of fugitive emissions shall be carried out as per the guidelines of CPCB by fugitive emission detectors and reports shall be submitted to the Ministry's regional office at Bhopal. For control of fugitive emission all unsaturated hydrocarbon will be routed to the flare system and the flare system shall be designed for smoke less burning.
- vi. Fugitive emissions in the form of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting H₂S, HC leakage shall also be provided at strategic locations. The company shall use low sulphur fuel to minimize SO₂ emission. Leak Detection and Repair programme shall be implemented to control HC/VOC emissions. Work zone monitoring shall be carried out near the storage tanks besides monitoring of HCs/VOCs in the work zone.

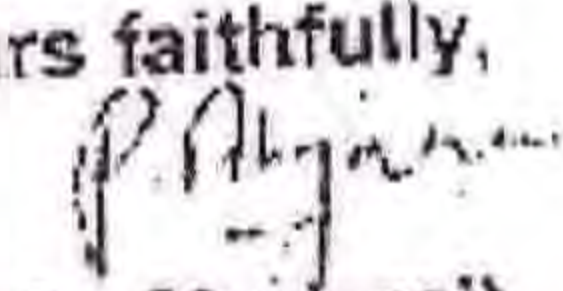
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- vii. The flare area shall have H₂S and HC detectors with fire alarm system at fire station / control room. Flare gas recovery system shall be installed. All process units shall have knockout drums in every battery area. The safety release system of light hydrocarbons which are open to atmosphere shall be connected to flare system.
- viii. The waste water shall be treated in the waste water treatment plant and the treated effluent shall meet the prescribed standards. Efforts shall be made to recycle the treated effluent to achieve zero discharge.
- ix. 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 form the State Pollution Control Board must be obtained for collections/ treatment/ storage/ disposal of hazardous wastes.
- x. The company shall strictly follow all the recommendation mentioned in the charter on Corporate Responsibility for Environmental Protection (CREP).
- xi. The Company shall 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 shall be installed to minimize gaseous emissions during flaring.
- xii. To prevent fire and explosion at Oil and Gas facility, potential ignition sources shall be kept to a minimum and adequate separation distance between potential ignition sources and flammable material shall be in place.
- xiii. Occupational health surveillance of worker shall be done on a regular basis and records maintained as per the Factory Act.
- xiv. Greenbelt shall 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.
- xv. M/s. BORL shall undertake measures for rain water harvesting to recharge the ground water and minimize fresh water consumption.

6.0. In case of change in the scope of the project, M/s BORL shall obtain fresh environmental clearance under the provisions of EIA Notification, 2006.

7.0 This issues with the approval of the competent authority.

Yours faithfully,


(Dr. P. L. Ahujara)
Director

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Copy to:

1. Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, E - 3 / 240, Arera Colony Bhopal - 462 016.
2. Chairman, Madhya Pradesh Pollution Control Board, E-5, Arera colony, Paryavaran Parisar, Bhopal 463016, Madhya Pradesh.
3. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
4. Guard File/Monitoring File/Record File.

(Dr. P. L. Ahujarai)
Director