

F. No. J-11011/595/2010- IA 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 : lk.bokolia@nic.in

Telefax : 011: 2436 6017

Dated 23rd May, 2012

To,

Shri C. N. Trivedi,
Executive Director (PC-CO)
M/s GAIL (India) Ltd.
16-Bhikaji Cama Place, R K Puram
New Delhi-110066.

E-mail : ccntrivedi@gmail.com; b.n.gosain@gmail.com;

Subject : Expansion of Petrochemical Complex at P. O. Pata, District Auriya, Uttar Pradesh by M/s GAIL (India) Ltd. – Environmental Clearance reg.

Ref. : Your letter no. GAIL/ND/PETROCHEMICALS-PROJECTS/2011 dated 5th October, 2011.

Sir,

Kindly refer to your letter dated 5th October, 2011 alongwith Form-1, Prefeasibility Report, EIA/EMP report, Public Hearing Report and subsequent communications vide your letters dated 20th October, 2011, 28th November, 2011, 14th December, 2011 and 6th February, 2012 regarding above mentioned subject.

2.0 The Ministry of Environment & Forests has examined your application. It is noted that proposal is for expansion of Petrochemical Complex at P. O. Pata, District Auriya, Uttar Pradesh by M/s GAIL (India) Ltd. Total plot area of the existing petrochemical complex is 585 ha. and no additional land is required for the proposed petrochemical expansion. Total cost of project is Rs. 5925.47 Crores. No national parks/ sanctuary/ reserve forests/ ecological sensitive areas/ reserve forest are located within 10 km. Following are the details of the existing units:

S.N.	Units	Installed Capacity
1	Gas Sweetening Unit	12.66 MMSCMD
2	C2 + Recovery Unit	12 MMSCMD
3	Gas Cracking Unit	440 KTA
4	Polymers Unit	
4.1	LLDPE/HDPE Swing Unit	210 KTA
4.2	HDPE I	100 KTA
4.3	HDPE II	100 KTA
	Sub Total	410 KTA
5.0	Butene 1	10 KTA

Handwritten signature

Besides, combined facilities with production capacity at Pata after expansion is as given below:

S.N.	Units	Existing	Proposed additional	Total after expansion
1	Gas Cracking Unit	440 KTA	450 KTA	990 KTA
2	Polymer Units	410 KTA	400 KTA	810 KTA
3	Butene 1	10 KTA	20 KTA	30 KTA
4	Utilities			

3.0 Stack of adequate height will be provided to gas fired Furnace 110, Furnace 120, Furnace 130, Utility boiler 1, Utility boiler 2 and Thermal Oxidizer. Low NOx burner will be installed. Vapour recovery system will be provided for product loading gantry. Fresh water requirement from canal will be increased from 1020 m³/hr to 2040 m³/hr. Industrial effluent generation will be increased from 140 m³/hr to 204 m³/hr after expansion. Out of which, additional industrial effluent generation will be 64 m³/hr. Industrial effluent will be segregated and treated in the effluent treatment plant (ETP). Spent catalyst and bottom tank sludge will be sent to authorized re-processors/recyclers. ETP sludge will be sent to treatment storage disposal facilities (TSDF) for hazardous waste.

4.0 The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 20th, 29th and 30th meetings held during 3rd-4th March, 2011, 17th-18th November, 2011 and 15th-16th December, 2011 respectively.

5.0 All petro-chemical complexes are listed at S.N. 5(c) under category 'A' and appraised at Central level.

6.0 Public hearing/public consultation was conducted on 5th September, 2011.

7.0 The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 subject to strict compliance of the following specific and general conditions:

A. SPECIFIC CONDITIONS :

- i. All the specific conditions and general conditions specified in the environmental clearance letters accorded vide Ministry's letter nos. J-11011/22/90-IA.II (I) dated 30th March, 1992, J-11011/29/96-IA.II (I) 16th January, 1997, J-11011/237/2003-IA.II (I) 19th April, 2004 and J-11011/143/2004-IA.II (I) dated 12th January, 2005 should be implemented.
- ii. M/s GAIL (India) Ltd. shall comply with new standards/norms prescribed for petrochemical industry notified under the Environment (Protection) Rules, 1986.
- iii. The process emissions (particulate matter, SO₂, NOx, HC, CO and VOCs) from various units shall conform to all standards prescribed by the CPCB/U. P. Pollution Control Board (UPPCB) 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.
- iv. OISD guidelines shall be followed for minimum distance between various units.
- v. Low NOx burner shall be installed to control NOx emissions.

- vi. As proposed, vapour recovery system shall be provided for product loading gantry.
- vii. 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.
- viii. In-plant control and monitoring measures for checking fugitive emissions from all the vulnerable sources should be provided. Adequate dust suppression systems with water spray should be provided for storage yard, junction houses. Raw material loading and unloading area should be covered and also provided with water spraying system. Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored and records maintained. The emissions should conform to the limits stipulated by the UPPCB.
- ix. Steps shall be taken to minimise fugitive emissions. Monitoring of fugitive emissions shall be carried out as per guidelines of CPCB by fugitive emissions detector and report shall be submitted to the Ministry' Regional Office at Lucknow.
- x. Continuous ambient air quality monitoring stations for PM₁₀, SO₂, NO_x, CO, HC and VOCs shall be set up in the Petrochemical complex in consultation with CPCB/UPPCB. Unit shall follow CPCB/MoEF calibration protocol for the calibration of continuous stack as well as ambient air quality monitoring analyzer installed in all stations. 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 UPPCB.
- xi. A proper Leak Detection and Repair (LDAR) Program shall be prepared and implemented. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.
- xii. 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.
- xiii. Continuous monitoring system for VOCs at all important places/areas shall be ensured. When monitoring results indicate above the permissible limits, effective measures shall be taken immediately.
- xiv. Additional fresh water requirement from canal shall not exceed 1020 m³/hr and prior permission shall be obtained from the concerned agency. No ground water shall be used.
- xv. Additional industrial effluent generation due to proposed expansion shall not exceed 64 m³/hr. Industrial effluent including existing (214 m³/hr) shall be segregated and treated in the ETP. As proposed, treated effluent (50 m³/hr) shall be recycled and reused within factory premises. Remaining treated effluent shall be discharged into Sengar River after obtaining prior permission from the UPPCB and meeting the norms prescribed. Water quality of treated effluent should be monitored regularly. Online TOC analyzer, pH meter and flowmeter shall be installed to monitor the treated water quality before discharge into River. As proposed, sewage shall be transferred to aeration tank alongwith process wastewater.
- xvi. Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

- xvii. The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from UPPCB should be obtained for disposal of solid/hazardous waste in the TSDF. Measures should be taken for firefighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal should be obtained and submitted to the Regional Office at Lucknow.
- xviii. Existing captive secured landfill site shall be designed as per CPCB guidelines. A performance evaluation study for the existing captive secured landfill site shall be carried out and report shall be submitted to the respective regional office of the MoEF, CPCB and UPPCB within three months. All the recommendations made in the study shall be implemented.
- xix. Piezometer wells shall be installed around secured landfill. Ground water monitoring shall be carried out in every three months and trend analysis shall be carried out and report shall be sent to the CPCB and UPPCB.
- xx. Spent catalyst and bottom tank sludge shall be sent to authorized re-processors/recyclers.
- xxi. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system should be as per the OISD norms. All the OISD standards shall be followed.
- xxii. 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.
- xxiii. 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.
- xxiv. Green belt shall be developed in 33 % area to mitigate the effects of fugitive emissions all around the plant as per CPCB guidelines in consultation with the local DFO. Thick greenbelt with suitable plant species shall be developed around the proposed distillery to mitigate the odour problem.
- xxv. Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xxvi. All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- xxvii. All the commitments made during the Public Hearing / Public Consultation meeting held on 5th September, 2011 should be satisfactorily implemented and adequate budget provision should be made accordingly.

- xxviii. Company shall prepare project specific environmental manual and a copy shall be made available at the project site for the compliance.
- xxix. Company should adopt Corporate Environment Policy as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 and implemented. Under Corporate Social Responsibility (CSR), sufficient budgetary provision should be made for health improvement, education, water and electricity supply etc. in and around the project.
- xxx. 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 U.P. Pollution Control Board (UPPCB).
- 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 UPPCB. 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 shall implement these conditions.

10.0 The above conditions shall 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 Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.


(Lalit Bokolia)
Joint Director

Copy to:

1. The Principal Secretary, Department of Environment, Government of Uttar Pradesh, Sachivalaya, Bapu Bhawan, Adjacent to Vidhan Sabha, Lucknow - 226001, U.P.
2. The Chief Conservator of Forests, Regional Office (Central Zone, Lucknow) Kendriya Bhavan, 5th Floor, Sector-H,, Aliganj, Lucknow-226024.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.

4. The Chairman, Uttar Pradesh Pollution Control Board, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow - U.P.
5. Joint Secretary, IA Division, 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.

/

(Lalit Bokolia)
Joint Director