

F. No. J-11011/310/2012- IA II (I)  
Government of India  
Ministry of Environment, Forests and Climate Change  
(I.A. Division)

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Dated : 23<sup>rd</sup> March 2015

To,

Shri A.T. Patadia (Chief General Managing)  
M/s Gujarat Narmada Valley Fertilizers Company Ltd.  
P.O. Narmadanagar, District Bharuch,  
Gujarat- 392015

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**Subject:** Expansion of Brownfield Ammonia, Urea Plant, New Aniline, TDI-MDI Blends, Water Soluble Fertilizers (NPK), Acetic Acid and CPSU Plants at Narmadanagar, Bharuch, Gujarat by M/s Gujarat Narmada Valley Fertilizers Company Ltd. - Environmental Clearance reg.

**Ref. :** Your letter no. GNFC/EC/2014/02 dated 10<sup>th</sup> March, 2014.

Sir,

Kindly refer your letter dated 10<sup>th</sup> March, 2014 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report and subsequent submission of additional information vide letter dated 30<sup>th</sup> December, 2014 regarding above mentioned project.

2.0 The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that proposal is for expansion of Brownfield Ammonia, Urea Plant, New Aniline, TDI-MDI Blends, Water Soluble Fertilizers (NPK), Acetic Acid and CPSU Plants at Narmadanagar, Bharuch, Gujarat by M/s Gujarat Narmada Valley Fertilizers Company Ltd. Total plot area of GNFC Unit 1 is 32,39,698m<sup>2</sup> and of GNFC Unit 2 is 6,50,000m<sup>2</sup>. Expansion will be done in the existing unit. Total cost of expansion project is Rs. 4,463 crores. No protected areas, forest land/national parks/ wildlife sanctuaries are involved. River Narmada river flows at a distance of 4 Km. The following products will be manufactured:

S.N.	Product	Existing Capacity (MTPA)	Proposed Additional Capacity (MTPA)	Total Capacity After Expansion (MTPA)
1	Ammonia	6,30,000	10,22,000	16,52,000
2	Urea	7,20,000	14,05,250	21,25,250
3	Aniline	48,000	78,000	1,26,000
4	Acetic Acid	1,71,000	--	1,71,000
5	TDI-MDI Blends	---	7,800	7,800
6	Water Soluble Fertilizers	--	5000	5000
7	Power Generation	45 MW	45 MW	90 MW

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3.0 Proposed ammonia plant and Co-generation Power Steam Unit (CPSU) plant will be based on natural gas as fuel. Adequate stack height will be provided to Ammonia plant reformer, steam generator, NG/ RLNG fired gas turbine and Urea Prilling Tower. Low NOx burners will be provided to minimize NOx emissions. Flare stack will be provided to flare waste gases. Process dust of urea will be collected in cyclone separator followed by bagfilter and urea dust will be recycled in the process. Scrubber will be provided to Hydrogen Vent Aniline Plant and Nitrobenzene vent. Absorption tower will be provided to NOx absorption column. Venturi scrubber & packed bed scrubber will be provided to Aniline Incinerator. Water requirement from Narmada River, Ukai Canal and Narmada Canal will be increased from 55,068m<sup>3</sup>/day to 83,654 m<sup>3</sup>/day after expansion. Industrial effluent generation in GNFC Unit -1 will be increased from 19,703m<sup>3</sup>/day to 25,283m<sup>3</sup>/day after expansion. Industrial effluent generation in GNFC Unit -2 will be increased from 1,470 m<sup>3</sup>/day to 2,637m<sup>3</sup>/day after expansion. Industrial effluent will be treated in the effluent treatment plant (ETP) and treated effluent will be discharged to River Bhukhi. ETP sludge, spent resin, silica gel and incinerator ash will be sent to treatment, storage and disposal Facility (TSDF) site. Spent catalyst, used oil, waste oil and used batteries will be sent to CPCB authorized recyclers.

4.0 Public Hearing was conducted on 30<sup>th</sup> September, 2014.

5.0 All the Fertilizer Plant are listed at S.N. 5(a) under Category 'A' and appraised at the Central level.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its meetings held during 31<sup>st</sup> January, 2013-1<sup>st</sup> February, 2013, 28<sup>th</sup>-30<sup>th</sup> May, 2014 and 20<sup>th</sup> -21<sup>st</sup> January, 2015 respectively. Project Proponent and the EIA Consultant namely M/s Kadam Environmental Consultants, have presented EIA / EMP report as per the TOR. EAC has found the EIA / EMP Report and additional information to be satisfactory and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

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

**A. SPECIFIC CONDITIONS:**

- i) All the conditions stipulated in environmental clearance letter J-11011/1218/2007-IA (II) dated 28<sup>th</sup> April, 2008 and letter no. J-11011/731/2007 IA (II) dated 19<sup>th</sup> March, 2008 accorded for the existing projects shall be implemented.
- ii) The gaseous emissions (SO<sub>2</sub>, NOx, NH<sub>3</sub>, HC and Urea dust) and particulate matter from various process units shall conform to the norms prescribed by the CPCB/SPCB 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.
- iii) Adequate stack height shall be provided to Ammonia plant reformer, Heat recovery steam generator (HRSG), NG/ RLNG fired gas turbine and Prilling Tower. Low NOx burners shall be provided to control NOx emissions.

- iv) In Urea Plant, particulate emissions shall not exceed 50mg/Nm<sup>3</sup>. Monitoring of Prilling Tower shall be carried out as per CPCB guidelines.
- v) Air pollution control devices as proposed in the environmental management plan shall be implemented in order to meet the prescribed standards.
- vi) Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> September, 2009. The levels of PM<sub>10</sub> (Urea dust), SO<sub>2</sub>, NO<sub>x</sub>, Ammonia, Ozone and HC shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. 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 the Gujarat Pollution Control Board (GPCB).
- vii) 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. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions should conform to the limits stipulated by the GPCB.
- viii) 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.
- ix) Fresh water requirement from Narmada River, Ukai Canal and Narmada Canal should not exceed 83654 m<sup>3</sup>/day after expansion and prior permission shall be obtained from concerned Authority and a copy submitted to the Ministry's Regional Office at Bhopal.
- x) Industrial wastewater shall be treated in the ETP. As proposed, Urea plant process condensate shall be treated in a deep hydrolyser followed by stripping. Ammonia plant process condensate (APC) shall be stripped with steam followed by activated carbon and demineralization. Treated condensate shall be recycled/reused in the process. Utilities wastewater shall be treated in the ETP and treated effluent shall be recycled/ reused. Treated effluent shall also be monitored for the parameters namely ammonical nitrogen, Nitrate, Fluoride, pH etc.
- xi) All the effluents after treatment shall be routed through a properly lined guard pond/holding pond for equalization and final control. In the guard pond/holding pond, automatic monitoring system for flow, and relevant pollutants (i.e. pH, ammonical nitrogen, nitrate nitrogen etc) shall be provided with high level alarm system.
- xii) The treated effluent shall be discharged into the River Bhukhi after conforming to the standards prescribed for the effluent discharge and after obtaining permission from the GPCB. No process effluent shall be discharged in and around the project site. Sewage shall be treated in STP and treated water shall be recycled/reused within factory premises to achieve zero discharge except rainy season.
- xiii) Regular monitoring of ground water by installing peizometric wells around the guard pond and sludge disposal sites shall periodically be done and report submitted to the Bhopal Regional Office of the Ministry, CPCB and SPCB.
- xiv) The company shall construct the garland drain all around the project site to prevent runoff of any chemicals containing waste into the nearby water bodies. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.

- xv) The company shall 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. Measures shall be taken for fire fighting facilities in case of emergency.
- xvi) Spent catalysts and used oil shall be sold to authorized recyclers/re-processors only.
- xvii) 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.
- xviii) The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).
- xix) 20,000 Tons ammonia shall be stored in (2x 10000 Tons Tanks). Both tanks shall be converted into double walled and double integrity. Otherwise one more tank of 10,000 Ton should be installed.
- xx) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xxi) All the commitments made during the Public Hearing / Public Consultation meeting held on 30.09.2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xxii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xxiii) At least 2.5 % of the total cost of the project shall be earmarked towards *the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal.* Implementation of such program shall be ensured accordingly in a time bound manner.
- xxiv) Remote operated valve placed on NH<sub>3</sub> line to avoid leakage/equipment check should be performed to ensure that remote operated valve (ROV) is all time is functional.
- xxv) 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 must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any other statutory authority.



- 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 Gujarat Pollution Control Board (GPCB) 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. During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic wastewater and storm water drains.
- vii. Usage of Personnel Protection Equipments by all employees/ workers shall be ensured.
- viii. 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.
- ix. The company shall also comply with all the environmental protection measures and safeguards proposed in the project report 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.
- x. The company shall undertake CSR activities and all relevant measures for improving the socio-economic conditions of the surrounding area.
- xi. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- xii. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xiii. The company shall earmark sufficient funds for 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.

- xiv. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/ representations, if any, were received while processing the proposal.
- xv. 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 the Gujarat Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xvi. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the Gujarat 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 Bhopal Regional Offices of MoEF by e-mail.
- xvii. 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.
- xviii. 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 Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.



(LalitBokolia)  
Additional Director

**Copy to :-**

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8<sup>th</sup>

Floor, Gandhi Nagar - 382 010, Gujarat.

2. The Chief Conservator of Forests (Western Zone), Ministry of Environment & Forests, Regional Office, E-5, Arera Colony, Link Road -3, Bhopal -462 016, M.P.
3. The Chairman, Central Pollution Control Board PariveshBhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Gujarat State Pollution Control Board, ParyavaranBhawan, Sector 10 A, Gandhi Nagar-382 043, Gujarat.
5. Monitoring Cell, Ministry of Environment, Forests and Climate Change ,Indira Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File/Monitoring File/Record File.



(LalitBokolia)  
Additional Director