

Kind Attention: P.M.C. Nair



**Government of India
Ministry of Environment & Forests
(IA Division)**

By speed post

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Dated: June 10, 2009

F. No. J-11011/862/2008-IA-II (I)

To

M/s Rashtriya Chemicals & Fertilizers Ltd.
Ammonia Plants
Distt. Raigadh,
Maharashtra

pmcnair@refltd.com

Sub: Expansion by De-Bottlenecking of Thal Ammonia Plants 2x1500 MTPD to 2x1750 MTPD and Urea plant 3x1724 MTPD to 3x2040 MTPD at District Raigadh, Maharashtra by M/s Rashtriya Chemicals & Fertilizers Ltd. - Environmental Clearance reg.

Sir,

This has reference your letter no. RCF/EC//Thal Debottle/2009 dated 16th March, 2009 alongwith EIA/EMP report seeking environment clearance under EIA Notification 2006.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that M/s Rashtriya Chemicals & Fertilizers Ltd. have proposed for expansion by De-bottlenecking of Ammonia and Urea Plant at Thal Fertilizer Complex of RCF Limited District Raigadh, Maharashtra. The plant is operating a fertilizer plant at Thal in District Raigadh, Maharashtra since 1984. The total cost of the project will be Rs. 475 Crores. The products and production capacity for the proposed debottlenecking scheme are as given below:

Products	Existing	After expansion
<u>Ammonia</u>	2 x 1500 MTPD	2 x 1750 MTPD
<u>Urea</u>	3 x 1734 MTPD	3 x 2040 MTPD

3.0 It is noted that the details of the proposed debottlenecking scheme to achieve the enhanced capacity by implementing the following modifications:

- The front end of the Ammonia plant will be operated at a slightly higher capacity to produce required amount of CO₂ for conversion of 2 x 1750 MTPD of Ammonia into Urea.
- Upgradation of Syn Gas Turbine for better efficiency and increased load.
- Deletion of Natural Gas Compressor as NG will be available at minimum 40 Kg/Cm²g pressure.

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Issued
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- Replacement of Combustion Air heater for improved heat recovery from Reformer Flue Gas system.
- Replacement of Catalyst Tubes in Primary Reformer with better material of construction.
- Replacement of burners in Primary Reformer.
- Revamping of benfield CO₂ removal to 2-stage GV CO₂ system.
- Inclusion of S-50 Synthesis Converter with Waste Heat Boiler.
- Replacement of BFW Pump Turbines and upgrading BFW Pump.
- Replacement of existing Carbamate Pumps in Urea Plant with higher capacity.
- In the effluent treatment system (in plant), medium pressure (MP) Condensate Stripper is proposed to be provided in place of Low Pressure (LP) Condensate Stripper in ammonia plant.
- Improvements in capacity of pumps in urea plant to enhance the production capacity.
- The urea plant will be upgraded to remove the bottlenecks such as carbamate pumps.

All other existing facilities will remain unchanged.

4.0 It is noted that raw water requirement of 52,000 m³/day for existing plant is met from Amba/Kundalika River. Approximately 1200 m³/day of additional water is required, which will also be drawn from Amba/Kundalika River. Water will be drawn from existing pipeline through MIDC supply and the requirement is within the permitted limit of water drawl of 90,000 m³/day. Wastewater generation will increase from 6804 m³/day to 7000 m³/day i.e. about 200 m³/day from proposed additional capacity which will be treated in existing effluent treatment plant. The treated wastewater will be discharge in to sea at 3.5 km inside the sea from the sea shore. For control of NOx emission from reformer stack Low NOx burners will be used. The advanced bucket will be used for control of urea dust from prilling tower. The increase in urea dust due to debottlenecking will be from 30 mg/Nm³ to 35 mg/Nm³. The resultant urea emission load will be 0.37 kg/Tonne against the standards of 0.5 kg/Tonne.

5.0 All the Chemical Fertilizer plants have been listed at Sl. No. 5(a) under Category 'A' and appraised at the Central level in 94th meeting of the Expert Appraisal Committee (Industry) held during 12th - 14th May, 2009. Public hearing/public consultation-exempted as per para 7(ii) of EIA Notification, 2006.

6.0 Based on the information submitted by project authorities, 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) The project authority shall treat the industrial and domestic effluent as per the standards notified under Environmental (Protect) rules 1986 or prescribed by the Maharashtra Pollution Control Board whichever are stringent. The treated wastewater shall be recycled/reused/used for irrigation/green belt development as far as possible before discharge into sea.

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- ii) The permission for drawl of 53,200 KLD water from Amba/Kundalika River shall be obtained from the concerned department and a copy shall be submitted to the Ministry and its Regional Office at Bhopal within 3 months.
- iii) The project authorities shall install efficient air pollution control system like extended bucket to Urea Prilling Tower, Low NOx burners to reformer, Ammonia stripper etc to control particulate and gaseous emissions from the plant to achieve the prescribed standards.
- iv) The gaseous emissions (SO₂, NOx, NH₃, urea dust) and particulate matter from various process units shall conform to the standards prescribed by the concerned authorities from time to time. Emission data shall be periodically monitored and reports submitted to Ministry's Regional Office, CPCB and SPCB.
- v) Data on ambient air quality stack emission and fugitive emissions shall be uploaded on the company's website and also regularly submitted online to Ministry's Regional office at Bhopal, Maharashtra Pollution Control Board and Central Pollution Control Board as well as hard copy once in six months. Data on SPM, SO₂, NH₃, NOx and urea dust shall also be displayed prominently outside the premises at the appropriate place for the general public.
- vi) Spent catalysts shall be sold to authorized venders for its metal value. The other solids wastes shall be segregated and stored in the separate storage space and finally sold to the authorized venders.
- vii) The company shall develop the green belt in atleast 33% land area to mitigate the effect of fugitive emissions and noise as per the guidelines CPCB.
- viii) The company shall implement all the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) for fertilizer industries.
- ix) Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act.
- x) 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 :

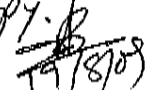
- (i) The project authorities shall strictly adhere to the stipulations of the SPCB/state government or any statutory body.
- (ii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations 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

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conditions imposed and to add additional environmental protection measures required, if any.

- (iii) At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system 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) The locations of ambient air quality monitoring stations shall be reviewed in consultation with the State Pollution Control Board (SPCB) and additional stations shall be installed, if required, in the downwind direction as well as where maximum ground level concentrations are anticipated.
- (v) Dedicated scrubbers and stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided to control the emissions from various vents. The scrubbed water shall be sent to ETP for further treatment.
- (vi) The company shall undertake following Waste Minimization measures.
 - Metering and control of quantities of active ingredients to minimize waste.
 - Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - Use of "Closed Feed" system into batch reactors.
 - Venting equipment through vapour recovery system.
 - Use of high pressure hoses for equipment cleaning to reduce wastewater generation.
- (vii) Fugitive emissions in the work zone environment, product, and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards/Central Pollution Control Board.
- (viii) The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000 and Hazardous Waste (Management and Handling) Rules, 1989, as amended from time to time. Authorization from the SPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes.
- (ix) 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).
- (x) The company shall develop rain water harvesting structures to harvest the run off water for recharge of ground water.
- (xi) The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

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The eco-development plan should be submitted to the SPCB within three months of receipt of this letter for approval.

- (xii) The project proponent shall also comply with all the environmental protection measures and safeguards proposed in the ELA/EMP report.
- (xiii) A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- (xiv) The project authorities shall earmark adequate funds 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 shall not be diverted for any other purpose.
- (xv) The implementation of the project vis-à-vis environmental action plans shall be monitored by the concerned Regional Office of the Ministry/SPCB / CPCB. A six monthly compliance status report shall be submitted to monitoring agencies and shall be posted on the website of the Company.
- (xvi) State Pollution Control Board should display a copy of the clearance letter at the Regional office, Gram Panchayat, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
- (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 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.

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

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

9.0 Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.

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 Pollution)

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Act, 1981, the Environment (Protection) Act, 1986 Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


(H. S. Malviya)
Joint Director

Copy to :-

1. The Secretary, Department of Environment and Forests, Govt. of Maharashtra, Mumbai - 400 001, Maharashtra.
2. The Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, Link Road No.3, E - 5, Arera Colony, Bhopal - 462 016, M.P.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Maharashtra Pollution Control Board, Shri Chatrapati Shivaji Maharaj Municipal Market Building, 4th Floor, Mata Ramabai Ambedaker Road, Mumbai - 400 001, Maharashtra.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File/Monitoring File/Record File.


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Joint Director

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