

F. No. J-11011/75/200/- 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 : [pb.rastogi@nic.in](mailto:pb.rastogi@nic.in)  
Telefax : 011: 2436 7668  
Dated 30<sup>th</sup> July, 2007

To,  
M/s Nagarjuna Agrichem Ltd.  
Plot No.61, Nagarjuna Hills  
Panjagutta  
Hyderabad 500 081, A. P.

E-mail : [narayanarajud@nagarjunagrlichem.com](mailto:narayanarajud@nagarjunagrlichem.com) ; Fax No. : 08942-231171/270136

Subject : Expansion of Pesticide Unit (12.5 TPD to 30 TPD), Change in Product Mix and Captive Power Plant (4 MW) at Plot No. 177, Arinama Akkivalasa, Allinagaram, Etcherla, Srikakulam, A.P. by M/s Nagarjuna Agrichem Ltd.

Sir,

This has reference to your letter no. nil dated 9<sup>th</sup> January, 2007 alongwith project documents including Form - I, Feasibility Report and EIA/EMP report and subsequent clarifications 7<sup>th</sup> and 19<sup>th</sup> March, 2007 furnished vide your letters dated 7<sup>th</sup> March, 2007 on the above mentioned project for seeking environmental clearance under the EIA Notification, 2006.

2.0 The Ministry of Environment and Forests has examined your application. It is noted that M/s Nagarjuna Agrichem Ltd. have proposed for the expansion of Pesticide Unit (12.5 TPD to 30 TPD), Change in Product Mix and Captive Power Plant (4 MW) at Plot no. 177, Arinama Akkivalasa, P.O. Allinagaram, Etcherla, Srikakulam, A.P. Total land acquired is 100 acres and expansion will be carried out on the same land in 24 acres and no additional land will be acquired for the expansion. During expansion production capacity of technical grade pesticides herbicides, fungicides and fine chemicals will enhance from 12.5 TPD to 30 TPD alongwith change in product mix as per details given below :

Products	Quantity (MTPD)
Acephate	3.5
DDVP	2.0
Propiconazole	3.0
Tricyclozole	2.0
Profenofos	7.0
Pretilachlor	6.5
Isoxaben	1.0
DAAM	0.75
4-HBAGE	0.5
Myclobutonil	1.5
Thifluzomide	1.0
Fenbuconazole	0.75
DMBCP	0.5
Total	30.0

3.0 ESP, bag filter, scrubbers and dust extraction system will be provided to control air emissions. To control odour, chilled water will be used in the process and blanketing to the storage tanks will be provided. Total water requirement from Nagavali river will be 1,380 m<sup>3</sup>/day Reverse Osmosis plant will be installed. High TDS effluent will be treated in Multi-effect evaporator and condensate will be recycled. MEE concentrate and ETP sludge will be treated in rotary kiln. Treated effluent will be discharged to the sea through pipeline at 1.25 km. HBr, KBr and NaBr solution will be treated in existing Bromine Plant to recover Bromine. HCl and Para-chloro phenol will be sold to authorized parties. Boiler ash be sold to cement and brick manufacturers. ETP sludge, Evaporation salts, Incineration ash, Rotary kiln salts will be sent to TSDF. Spent solvents will be recovered in the Solvent Recovery Plant and then sold to authorized agencies.

4.0 Public hearing meeting was held on 22<sup>nd</sup> November, 2006. 'Consent for Establishment' has been accorded and by the APPCB vide letter no APPCB/VSP.VZN/53/210w&A/2006 dated 19<sup>th</sup> July, 2006. Total cost of the project is Rs. 56.00 Crores.

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

**A. SPECIFIC CONDITIONS :**

- i. The gaseous emissions ( $\text{SO}_2$ ,  $\text{NO}_x$ , HCl,  $\text{Cl}_2$  &  $\text{Br}_2$ ) and particulate matter from various process units shall conform to the standards prescribed by the concerned authorities from time to time. Bromine ( $\text{Br}_2$ ) shall be monitored on-line. 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 respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- ii. New pesticide standards issued by the Ministry shall be followed.
- iii. Action shall be taken to reduce the air emissions in the work zone environment as far as possible. All the materials shall be handled in completely closed system to avoid fugitive emissions during handling and transportation and regularly monitored. Water scrubber followed by caustic scrubbers shall be provided to control gaseous emissions. Action shall be taken to reduce the emissions as far as possible. Vents of all the storage tanks, batch tanks or reactor shall be connected to the scrubber to scrub acid mist and solvent vapors. Hoods shall be installed in the drumming operations of HBr and HCl and connected to the scrubber and scrubbed vapors shall be sent to ETP for further treatment.
- iv. Solvent recovery shall not be less than 98 %. All venting equipment shall have vapour recovery system. The solvent shall be condensed in condensers using cooling tower, chilled and chilled brine to control odour. All the solvents in use shall be monitored in the treated effluent.
- v. Bromine shall be recovered from NaBr, HBr and KBr solutions and recycled. HCl and Para-chloro phenol shall be sold to authorized parties.
- vi. ESP or bag filter shall be provided to control gaseous emissions from the Captive Power Plant. Dust extraction system shall be provided to coal crushers conveyors and coal charging point of the bin. The flue gas emissions shall conform to the standards prescribed by the APPCB.

- vii. Total water requirement from Nagavali river shall not exceed 1,380 m<sup>3</sup>/day. The wastewater shall be segregated into different streams for effective treatment and disposal. Reverse Osmosis (RO) plant shall be installed for effluent treatment / water recycling purpose. All the high TDS and high COD effluent shall be treated in multi-effect evaporator (MEE) and discharged into sea through marine outfall. Treated water (condensate) shall be recycled to cooling tower. MEE concentrate and ETP sludge shall be treated in rotary kiln. Finally treated effluent shall be discharged to the sea through pipeline at 1.25 km. A diffuser shall be provided at the end of pipeline. TF-4 test shall be done before discharging treated effluent into the Sea. The quality of treated effluent shall conform to the standards prescribed by APPCB/EPA Rules.
- viii. Coal ash from coal-fired Captive Power Plant shall be stored in ash silo and sold to cement and brick manufacturers. ETP sludge, Evaporation salts, Incineration ash, Rotary kiln salts shall be stored in secured landfill and sent to TSDF. Spent solvents shall be recovered in the Solvent Recovery Plant and then sold to authorized agencies. Spent oil shall be given to recyclers and used lead acid batteries shall be given back to dealers.
- ix. All the organic waste shall be incinerated in the incinerator. Incinerator shall be upgraded and meet the Central Pollution Control Board (CPCB) guidelines. The incinerator shall have destructive efficiency of 99.9% and destructive efficiency of the incinerator shall be assessed by an agency like CPCB and a report submitted.
- x. As proposed in EIA/EMP, green belt of adequate width and density shall be developed in at least 66 ha (66 %) out of 100 ha. area to mitigate the effect of fugitive emissions all round the plant. The development of green belt along the boundary wall, open space and avenue roads shall be provided in consultation with the local DFO as per the CPCB guidelines.
- xi. The company shall adopt waste minimization/cleaner production techniques to reduce the pollution load and action plan in this regard shall be submitted to the Ministry within three months.
- xii. The company shall undertake rainwater harvesting measures to recharge the ground water as well as reduce consumption of fresh water.
- xiii. The project proponent shall comply with the environmental protection measures and safeguards recommended in EIA/EMP/Risk Analysis reports as well as the recommendations of the public hearing panel.
- xiv. The Company shall undertake eco-development measures including community welfare measure in the project area for the overall improvement of the environment. The eco-development plan should be submitted to the APPCB within three months of receipt of this letter for approval.
- xv. As mentioned in EIA/EMP, Rs. 18.50 Crores and Rs. 6.00 Crores earmarked towards capital cost and recurring expenditure/annum shall be used exclusively to implement the conditions stipulated by the Ministry of Environment & Forests as well as the State Government and shall submit an implementation schedule for all conditions stipulated herein. The funds shall not be diverted for any other purposes.
- xvi. Environmental clearance under the CRZ Notification shall be obtained and recommendations of the National Institute of Oceanography shall be followed.

**B. GENERAL CONDITIONS :**

- i. The project authorities must strictly adhere to the stipulations made by the Andhra Pradesh Pollution Control Board (APPCB) and the State Government.
- 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 adequacy of the conditions imposed and to add additional environmental protection measures required, if any.
- iii. Adequate number of influent and effluent quality monitoring stations shall be set up in consultation with the APPCB. Regular monitoring shall be carried out for relevant parameters.
- iv. The project authorities must strictly comply with the rules and regulations under the Manufacture, Storage and Import of Hazardous Chemicals Rules, 2000. Prior approvals of Chief Inspector of Factories, Chief Inspector of Explosives, Fire Safety Inspectorate etc. must be obtained.
- v. The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules, 2000. Authorization from the APPCB must be obtained for collection, storage, treatment and disposal of hazardous wastes.
- vi. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) 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 the Environment (P) Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- vii. Occupational health surveillance programme shall be undertaken as regular exercise for all the employees, specifically for those engaged in handling hazardous substances. First aid facilities in the Occupational Health Care Centre shall be strengthened and medical records of each employee should be maintained separately.
- viii. A separate Environment Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and monitoring functions.
- ix. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
- x. The implementation of the project vis-à-vis environmental action plans shall be monitored by Ministry's Regional Office at Bangalore / APPCB / CPCB. A six monthly compliance status report should be submitted to monitoring agencies.
- xi. The Project Proponent should advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded

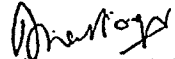
environmental clearance by the Ministry and copies of the clearance letter are available with the APPCB / Committee and may also be seen at Website of the Ministry and Forests at <http://envfor.nic.in>. The advertisement shall be made within 7 days from the date of issue of the clearance letter and a copy of the same shall be forwarded to the Ministry's Regional Office at Bangalore.

- xii. 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 land development work, if any.

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

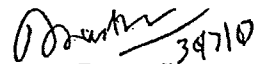
6.0. The Ministry reserves the right to stipulate additional conditions if found necessary. The company shall implement these conditions in a time bound manner.

7.0. 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 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

  
(Dr. P. B. Rastogi)  
Additional Director

Copy to :

1. The Secretary, State Department of Environment and Forests, Govt. of Andhra Pradesh, Mantralaya, 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, Andhra Pradesh State Pollution Control Board, Paryavaran Bhavan, A-3, Industrial Estate, Santhanagar, Hyderabad - 500 018, A. P.
4. The Chief Conservator of Forests (Central), Ministry of Environment & Forest, Regional Office (SZ), Kendriya Sadan, IV<sup>th</sup> Floor, E&F Wing, 17<sup>th</sup> Main Road, Koramangla, Bangalore - 560 034, Karnataka.
5. Adviser (IA), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi. - 110003.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi-110003.
7. Guard file.
8. Record file
9. Monitoring file.

  
(Dr. P. B. Rastogi) 39710  
Additional Director