DR. H.MALLESHAPPA,I.F.S.,
MEMBER SECRETARY

सत्यमेव जयते

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY,
TAMILNADU,
3rd Floor, PanagalMaaligai,
No.1 Jeenis Road, Saidapet,
Chennai-15.

Letter No. SEIAA / TN/F. 757/EC/5(f)/010/2013 dt. 28.11.2013

To

Thiru. J. Jayaseelan,

Director,

M/s. Nuray Chemicals Pvt. Ltd.,

New No. 25, 12th Cross Street,

Shastri Nagar, Adyar,

Chennai – 600 020.

Sir ,

Sub: SEIAA, TamilNadu - Project proposal submitted by **M/s. Nuray Chemicals Pvt. Ltd.** for the proposed Pharmaceutical unit with a capacity of 0.038 T/M at S.No.157 and 158, Plot No.111, SIDCO Industrial Estate, Kakkalur Village, Thiruvallur Taluk, Thiruvallur District under Category –**B1** and Schedule S. No. **5(f)** - Environmental Clearance issued - Reg.

Ref: 1) Your application for EC dt. 28.01.2013

2) Letter No. SEIAA-TN/F .No.757/ M-XLII/ TOR - 151 /2013 Dt. 14.08.2013

3) Your letter dt. 13.09.2013

4) Minutes of the 45th SEAC meeting held on 29.10.2013 and 30.10.2013

5) Minutes of the 93rd SEIAA meeting held on 25.11.2013

This has reference to your application dated: 28.01.2013 submitted to the State Level Environment Impact Assessment Authority, Tamil Nadu seeking Environmental Clearance under the Environment Impact Assessment Notification, 2006.

It is noted, interalia that the project proposal is for the proposed Pharmaceutical unit with a capacity of 0.038 T/M at S.No.157 and 158, Plot No.111, SIDCO Industrial

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Estate, Kakkalur Village, Thiruvallur Taluk, Thiruvallur District. Total plot area is 0.749 ha. . Green belt will be developed in 2.40 ha of plant area. The co-ordinates of the plant site will be located in between Latitude 13^0 07' 48.97" N to 13^0 07' 53.31" N and Longitude – $79^0$55' 51.66" E to $79^0$55' 52.49" E. No National parks, wild life sanctuaries, biospheres, reserve forest are located within 10 Km radius from the project site. The project does not involve any Rehabilitation & Resettlement .Total cost of the project is Rs. 12.88 Crores.

The following Products will be manufactured.

SL. NO.	PRODUCTS	PRODUCTION CAPACITY (TPM)
1.	Ferric citrate hydrate	0.01
2.	Tramadol hydrochloride	0.01
3.	Cetirizine dihydrochloride	0.01
4.	Glycerol Phenyl butyrate	0.004
5.	Aripirazole	0.001
6.	Vigabatrin	0.001
7.	Alosetron	0.002
	Total	**0.038**

Power requirement will be 140 HP with a backup of 1 number of 125 KVA D.G. Set. It is proposed to utilize Acetone -0.05 TPM, Acetonitrile – 0.009 TPM, Citric acid monohydrate – 0.006 TPM, Dimethylsulphate - 0.0002 TPM, Dry HCl - 0.04 TPM, Ferric chloride hexahydrate - 0.003 TPM, Glycerol - 0.001TPM, Iso Propyl alcohol - 0.026 TPM, Methyl imidazole methanol HCl - 0.0001TPM, N-Methyl pyrrolidinone - 0.0007 TPM, 4-Phenyl Butyric acid - 0.004 TPM, PTSA - 0.002 TPM, Sodium bicarbonate - 0.0002 TPM, Sodium hydroxide - 0.001 TPM, Sodium monochloro acetate - 0.002 TPM, Tetra hydro Pyrido indol-1one - 0.0002 TPM, Toluene - 0.106 TPM, Tramadol Base - 0.007 TPM, Triethylamine - 0.0003 TPM, 1-(2,3-Dichloro-phenyl) piperazine hydrochloride - 0.001 TPM, 2-{4-[(4-Chloro-phenyl)-Phenyl-methyl]-piperazin-1-yl}-ethanol - 0.06 TPM, 5-Vinyl-2-Pyrrolidinone - 0.001 TPM and

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7-(4-Chloro-butoxy)-3,4-dihydro-1H-quinolin-2-one (7 CBQ) - 0.005TPM as raw materials.

The total water requirement will be 27.5 KLD for the proposed project activity. Out of which, 15 KLD is fresh water, which will be met through SIDCO water supply and the remaining quantity of 12.5 KLD is the recycled water. Trade effluent generated is 13 KLD and domestic effluent of 2.0 KLD will be generated during operation.

The process effluent will be treated in the effluent treatment plant with Effluent collection sump, Neutralisation tank, Evaporator & RO plant and Zero Liquid discharge system will be maintained. Domestic effluent will be disposed through Septic tank followed by Dispersion trench.

Bag filter and cyclone separator will be provided for 0.5 TPH boiler (2 nos.). A common stack of height 15 m will be provided for the discharge of the emission from these two boilers. Wet scrubber with stack of height 10 m will be provided for the control of emission from Process area stack. Wet scrubber with stack of height 10 m will be provided for the control of emission from R & D area stack.

General Scrap will be sold out. Fly ash from boiler will be used as manure. Sludge from ETP, Salt from Evaporator and Residue from Solvent distillation will be collected, stored and disposed to Treatment Storage Disposal Facilities (TSDF). Waste Oil will be disposed through authorized recyclers.

The project activity is of Category "B1" and comes under S.No. 5 (f) in the Schedule of EIA Notification, 2006. The Proposal was appraised by the State Level Expert Appraisal Committee in the 42nd meeting held on 24.07.2013 & 25.07.2013, as per the prescribed procedure in the light of provisions under the EIA Notification, 2006 and on the basis of the mandatory documents enclosed with the application Viz., the Application Form-I, and prefeasibility report. TOR was prescribed by the SEAC for EIA studies and public hearing was exempted for the project as it is located in a notified industrial area namely Kakkalur SIDCO Industrial Estate, Thiruvallur Taluk, Thiruvallur District. Subsequently the proposal was appraised by the SEAC in its 45th meeting held on 29.10.2013 & 30.10.2013 based on the submission of the revised EIA prepared in accordance with the TOR and SEAC recommended to the SEIAA, Tamil Nadu to grant

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Environmental Clearance to this project. The proposal was considered by the SEIAA, Tamil Nadu in its 93rd meeting (Item No. 93-33) held on 25.11.2013 and the proposal was discussed in detail and decided to issue EC. Accordingly, the SEIAA hereby accords Environmental Clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 as amended with validity for five years from the date of issue of Environmental Clearance, subject to the strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITIONS

1) "Consent for Establishment" shall be obtained from the Tamil Nadu Pollution Control Board and a copy shall be furnished to the SEIAA, Tamil Nadu before taking up of any construction activity at the site.
2) The process effluent from the plant shall be reused in the process as committed.
3) 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.
4) The gaseous emissions (SO_2, NO_X, HCl, CO, CO2, VOC and HC) and Particulate matter along with RSPM levels from various process units shall conform to the standards prescribed by the concerned authorities 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 respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
5) Ambient air quality data shall be collected as per NAAQS standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th September, 2009. The levels of PM_{10}, SO_2, NO_X, VOC, CO and HCl shall be monitored in the ambient air and emissions from the stacks 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 located at Bengaluru, the respective Zonal office of CPCB and the TN Pollution Control Board .

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6) The locations of ambient air quality monitoring stations shall be decided in consultation with the Tamil Nadu Pollution Control Board and it shall be ensured that at least one station is installed in the up wind and another in the downwind direction as well as where maximum ground level concentrations are anticipated.

7) 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 and also displayed on website along with other data. The emissions shall conform to the limits stipulated by the TNPCB.

8) For further control of fugitive emissions, following steps shall be followed :

   a. Closed handling system shall be provided for chemicals.

   b. Reflux condenser shall be provided over reactor.

   c. System of leak detection and repair of pump/pipeline as preventive maintenance.

   d. The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water.

   e. Cathodic protection shall be provided to the underground solvent storage tanks.

9) Solvent management shall be carried out as follows

   a. Reactor shall be connected to chilled brine condenser system

   b. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.

   c. The condensers shall be provided with sufficient heat transfer area(HTA) and residence time so as to achieve more than 95% recovery.

   d. Solvents shall be stored in a separate space specified with all safety measures.

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e. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

f. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.

g. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

10) 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 reused in the process.

11) All the storage tanks will be under negative pressure to avoid any leakages. Breather valves, N_2 blanketing and secondary condensers with Chilled Brine chilling system shall be provided for all the storage tanks to minimize vapour losses. Closed handling systems for chemicals and solvents shall be provided as committed. Magnetic seals will be provided for pumps/agitators for reactors for reduction of fugitive emissions. Solvent traps shall be installed wherever necessary. Reactor generating solvent vapors shall be connected to condensers with receivers.

12) All venting equipment shall have vapour recovery system. All the pumps and other equipment`s where there is a likelihood of HC leakages shall be provided with Leak Detection and Repair (LDAR) system and LED indicators and Hydrocarbon detectors. Provision for immediate isolation of such equipment, in case of a leakage shall also be made. The company shall provide a well defined Leak Detection and Repair (LDAR) programme for quantification and control of fugitive emissions. The detectors sensitivity will be in ppm levels.

13) 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) Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

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14) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

15) 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 and prior permission from TNPCB shall be obtained for disposal of solid / hazardous waste in the TSDF.

16) 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.

17) . 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.

18) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms Measures shall be taken for fire fighting facilities in case of emergency.

19) As proposed, greenbelt shall be developed in 0.240 hectares out of total 0.749 hectares. Selection of plant species shall be as per the CPCB guidelines.

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20) 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.

21) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.

22) The Proponent shall abide the conditions / recommendations mentioned in the EIA report, Risk Analysis report study furnished by them.

23) A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

24) The Company shall harvest surface as well as rainwater from the rooftops of the buildings proposed in the expansion project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.

25) The Proponent shall submit within 3 months their policy towards Corporate Environment Responsibility which should inter-alia address (i) Standard operating process/ procedure to bring into focus any infringement/ deviation/ violation of environmental or forest norms / conditions, (ii) Hierarchical system or Administrative order of the Department to deal with environmental issues and ensuring compliance of EC conditions and (iii) System of reporting of non-compliance/violation of environmental norms to the Head of the Department or the State Government or stakeholders .

26) 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.

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27) The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

Part B - General Conditions:

(i) The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearance from other statutory and administrative authorities.

(ii) In the case of any change(s) in the scope of the project, a fresh appraisal by the SEAC/SEIAA shall be obtained.

(iii) Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act,1948.

(iv) Proper Housekeeping programmes shall be taken up.

(v) Usage of Personal Protective Equipments (PPEs) by all employees/ workers shall be ensured.

(vi) The project proponent shall also comply with all the environmental protection measures and safeguards proposed in the EMP report.

(vii) Storage facilities for auxiliary liquid fuel such as LDO/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.

(viii) The project proponent shall 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 within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the TNPCB and may also be seen at Website of the SEIAA,TN at http://seiaa.tn.gov.in.

(ix) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while

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processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.

(x) The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF at Bengaluru, the respective Zonal Office of CPCB and the TNPCB. The criteria pollutant levels namely; SPM, RSPM ($PM_{2.5}$& PM_{10}), SO_2, NO_x (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.

(xi) The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the Tamil Nadu 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 Regional Office of the MoEF, Bengaluru by e-mail.

(xii) **The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the SEIAA,TN, Regional Office of the MoEF, Bengaluru, Central Pollution Control Board and Tamil Nadu Pollution Control Board. The project proponent shall upload the status of compliance of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office of the MoEF, Bengaluru.**

(xiii) Regional Office of the Ministry of Environment & Forests, Bengaluru will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office of the MoEF, Bengaluru for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. **Criteria pollutants levels including NO_x (from stack & ambient air) shall be displayed at the main gate of the power plant.**

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(xiv) Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the SEIAA, TN.

(xv) The project authorities shall inform the Regional Office of the MoEF, Bengaluru as well as the SEIAA, TN regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.

(xvi) Full cooperation shall be extended to the Scientists/Officers from the SEIAA, TN / Regional Office of the MoEF, Bengaluru / CPCB/ TNPCB who would be monitoring the compliance of environmental status.

(xvii) The SEIAA, TN reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the SEIAA, TN. The SEIAA, TN may also impose additional environmental conditions or modify the existing ones, if necessary.

(xviii) The environmental clearance accorded **shall be valid for a period of 5 years** to start operations by the power plant.

(xix) Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

(xx) In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to the SEIAA, TN for clearance, a fresh reference should be made to the SEIAA, TN to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.

(xxi) The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management, Handling & Transboundary Movement)

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Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.

(xxii) Any appeal against this Environmental Clearance shall be with the Hon'ble National Green Tribunal, if prepared with in a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.

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Copy to:-

1. The Principal Secretary to Government, Environment & Forests Dept,Govt.of Tamil Nadu, Fort St.George, Chennai-9.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan,CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board,76, Mount Salai, Guindy, Chennai-600 032.
4. The CCF, Regional Office, Ministry of Environment & Forest (SZ),Kendriya Sadan, IV floor, E&F wings, 17th Main Road,Koramangala II Block, Bangalore - 560034.
5. Monitoring Cell, I A Division, Ministry of Environment & Forests,Paryavaran Bhavan, CGO Complex, New Delhi 110003.

67. The Project Manager, SIDCO Industrial Estate, Kakkalur Village, Thiruvallur Taluk, Thiruvallur District

8. The Block Development Officer, Kakkalur Village Panchayat , Kakkalur Village, Thiruvallur Taluk, Thiruvallur District
9. Spare.

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